American University of Beirut
Faculty of Medicine and Faculty of Health Sciences
Social And Preventive Medicine

Ashoura

Darb-el-Haidar

Medical, Psychological, and Social Perspectives

Revision II

Authors:

Wissam Jaber	Samar Rahhal
Abbas Kanso	Salam Sbeity
Hesham Khalfan	Shafic Sraj
Tarek Nashawi	Lenar Yessayan

Project Advisor:
Mrs. Mayada Kanj

We Dedicate This Study
To The People of Nabatieh
And In Particular
To the People of the "Saray" Alley

Reviewed by Shafic Sraj
July-September
1998

Acknowledgements

We would like to extend our deepest appreciation and gratitude to all those who contributed to this study and made it possible. First of all, to our advisor, Mrs. Mayada Kanj, who generously provided us with much needed advice on practically all aspects of the study, from questionnaire drafting to data analysis and presentation. Also she was very helpful in preparing this revised edition. Our thanks also to Dr. Marwan Sabban and Dr. Fadia Homaidan who provided us with the necessary computer facilities. Our thanks also to Dr. Hassan El-Amine who helped us in preparing the child psychology related questions of our questionnaire, Dr. Jack Mokhbat, who provided essential information on infectious diseases and their transmission and Mr. Fadl Zreik, the Red Cross official in Nabatieh, who provided us with information on the Lebanese Red Cross' involvement in Darb-el-Haidar. And of course thanks to Ms. Rita Khayyat, who taught us important data entering and computer analysis methods and to our course coordinator, Dr. Nadim Karam.

In addition, we wish to thank all the authorities that provided us with legitimacy to carry out our work: Imam Mohammed Mehdi Shamseddine, head of the Superior Muslim Shiite Council, Imam Mohammed Hussein Fadlallah and Imam Hani Fahs who provided us with ample information on the historical background and social impacts of Darb-el-Haidar.

Last but certainly not least, we would like to thank all the hospitable and helping individuals who made up our sampling unit in the South, where our fieldwork and data collection took place. It is to you, Darb-el-Haidar participants and your families, doctors, Red Cross volunteers, and hospital administrators and staff, that our study and its resulting recommendations are dedicated.

0.1 Abstract

We attempt in this project to study the impact of Darb-el-Haidar on the overall health of the individuals involved in this annual ceremony. We sampled 135 adult participants and asked them questions to assess their physical well being. Fifty mothers of participating children were also interviewed to assess the impact of Darb-el-Haidar on the mental state of these children. Finally, health care workers (doctors, hospital administrators, and Red Cross volunteers) and religious authorities were interviewed to further assess health implications.

We found that where physical well-being is concerned, the level of awareness and risk prevention implemented were not sufficient to eliminate spreading of major infectious diseases and cases of blood hemorrhage. The precautions were less evident in the case of children, where the sharing of blades used was very common. As for mental health, no significant psychological anomalies or symptoms were noted to correlate Darb-el-Haidar with mental status of practicing children. By studying the final health aspect, social well being, it was found that the ceremony contributes positively to the relation of the individual to his society, and the general unity and harmony of the practicing society. Other findings, as well as recommendations of possible health improvements to be made to the ceremony, are also presented.

0.2 Introduction

It was noon, when the battle of Karbala ended and the grief of the Shiites began. For many centuries now, this grief over the death of El-Hussein has been expressed by Darb-el-Haidar. This ceremony reached Nabatieh several decades ago, and takes place each year at the anniversary of his death. Although numerous studies concerning historical and social implications of the event have been implemented, no study of the health implications of this ritual has been conducted yet.

0.3 Rationale

The idea behind the project began with a trip some members of our group (medical students) took to Nabatieh on May the sixth to watch the Darb-el-Haidar ceremony. The group watched in disbelief, as many obvious health transgressions were committed. People were literally soaked with blood and at the same time engaging in various forms of physical contact such as shaking hands, hugging, and carrying each other around. People were also fainting, or about to faint as they obliviously hit themselves over and over. Even very

young children were held down by their parents while a stranger cut their head and induced the flow of blood.

Such actions could entail the common health risks associated with blood contact and loss including disease transmission and hemorrhage complications. With the increase in the occurrence of many endemics (6) during this century, a look into the overall implications (Physical, Mental, and Social) of Darb-el-Haidar is well placed.

Further support for the idea came from the shared opinions of certain religious authorities, who find the ritual too intense and dangerous, and thus causing negative publicity for the Muslim Shiite community as a whole. Largely for these reasons, the ceremony was prohibited by Imam Mohammed Hussein Fadlallah on his followers, and discouraged by the head of the Higher Islamic Shiite Council, Imam Mohammed Mehdi Shamsuddin, as we found out during our meetings prior to the survey. The latter, although not officially prohibiting the event, told the group in a preliminary interview that his council tries as much as possible not to promote but to hush down the event to decrease publicity each year.

On the other hand, the ceremony is deeply rooted, and is perceived as an age-old tradition. This profound religious significance can render the practicing individuals to strongly oppose any attempts to discontinue the ceremony.

To reconcile between the two stances, one strongly against (some religious figures and medical intuition), the other adamantly for (public opinion), as well as to satisfy our intention of trying to supplement something we find needy of health improvement, we decided to explore the issue of Darb-el-Haidar and its possible impacts on health (as defined by the World Health Organization: the physical, mental, and social well-being) of the individual, with the ultimate aim of proposing preventive measures. These are measures that should be taken on the day of Darb-el-Haidar to make the procedures less risky and dangerous and more in accordance with scientifically sound principles and needs.

As future medical doctors, we have a duty in looking out for the health interests of the people. We also, however, need to consider the needs of the people, what they perceive to be important in their lives. We also need to respect these needs if we hope to communicate with the general public and reach a compromise. In the spirit of this consideration, we present this study aiming to the benefit of the population in large and our people in Nabatieh in particular.

As a final note, it is important to add that a lack of previous studies on this subject contributed a sense of urgency and necessity to our project.

0.4 Literature Review

An extensive search in the international med-line and periodicals was done in an attempt to find articles describing the health implications of the practice of Darb-el-Haidar.

The key words used were "Ashoura" and related topics, such as "ritual", "abuse", "blood born infectious diseases", and many other pertinent terms. This search was supplemented by reviewing the Lebanese literature and newspaper archives. However, we found no articles on the health implications of the practice. Instead, ample information was found on the history of the ritual. This is summarized below, since it serves as a prelude as well as essential background knowledge for the reader to understand what will follow in our discussion on health aspects of Darb-el-Haidar.

Historical Background

The story of Darb-el-Haidar starts with a major Shiite Islamic figure, El-Hussein, the son of Imam Ali, the last of the four heirs to the rule of the prophet Mohammed. In our interview with Imam Hani Fahs, he explained to us the tragic story of El-Hussein: the people of the city of Koffa (in Iraq) wanted El-Hussein to lead them and revolt against the current Islamic leader of the time, Yazid. They therefore sent for him to come and rally them into action. However, on his way to Koffa from Mecca, the situation changed in Koffa with the coming to power of a pro-Yazid leader who not only terrorized his people into giving up their support for El-Hussein, but also sent an army to intercept him and his forces. This led to the battle of Karbala during which El-Hussein was killed. Since then, the citizens of Koffa and the Shiites in general felt a sense of guilt for their indirect role in El-Hussein's death. Centuries later, a ceremony of grief, guilt, and remorse was started by the Safaoites of Iran to be held on the anniversary of El-Hussein's death. This ceremony reached the village of Nabatieh in 1910, when some Shiite Iranians settled there. Slowly, it grew in magnitude till it adopted the local character it possesses today as Darb-el-Haidar.

As for the practice itself, it takes place in a public manner with the gathering of participants in front of the Husseiniya, a meeting hall of religious value, on the anniversary day of Hussein's death, the 10^{th} of Ashoura on the Muslim Hijri calendar. In that location, each participating individual has his head cut, either by himself or by a designated cutter. The cut occurs with either a sharp blade or Qama (a sword), and is inflicted longitudinally in the center of the head just above the hairline. This is repeated several times, causing a laceration of the scalp a few centimeters long, thus inducing the flow of blood. When this occurs, the participant proceeds to beat the site of the laceration,

either with his palm or using a flat surface such as that of the Qama or a piece of wood. During this beating, he tours the ceremony site, the Nabatieh square, with his friends in the form of a close-knit group, while uttering chants of love and sacrifice to Imam Hussein. The time period during which each individual practices Darb-el-Haidar varies, but the process stops at the noon prayer call, about five hours after the first participants enter the ceremony area.

Infectious Diseases and Disinfection Methods

For the purpose of this study, we reviewed four diseases, namely HIV, Hepatitis B, Hepatitis C, and Tetanus. These can be transmitted through blood, and thus form a major threat during activities that include blood-blood contact.

To begin with, HIV, or the human immunodeficiency virus, is an enveloped retrovirus that most often results in progressive damage to the immune and other organ systems collectively known as the Acquired Immunodeficiency Syndrome, better known as AIDS. Infected people may be free of clinical signs or symptoms for many months and up to several years before any clinical manifestations appear. These include opportunistic infections and constitutional and neurological symptoms. Symptoms of AIDS start to appear after an average period of 8-10 years following infection. Case fatality rate of AIDS is very high and most people (80-90%) usually die within 3-5 years after diagnosis with AIDS is made (3).

HIV can be transmitted by any body fluid contact such as in sexual contact, sharing of HIV contaminated needles, syringes, razors and blades, and in transfusion of infected blood or its components (4).

Hepatitis B virus or HBV is a double stranded DNA virus. 90% of HBV infections develop into acute infections and the patient recovers completely. The other 10% of patients will develop the chronic type of infection out of which 3% will die because of liver cirrhosis or hepatocellular carcinoma. The other 7% will develop into the persistent chronic type of HBV infection. These patients will become carriers and hence reservoirs for the transmission of the virus. Incubation period ranges from 4 to 26 weeks, hence it is difficult to determine the origin of the infection. HBV can be acquired by rather casual contact with infected blood or serum. Transmission occurs by percutaneous and permucosal exposure to infective body fluids. Commonly used razors and toothbrushes have been implicated as occasional vehicles of HBV transmission (2).

Hepatitis C virus is an enveloped RNA virus. It causes symptoms that are subclinical or mild but it is likely to become chronic and cause liver damage. Only rare cases are fatal. The incubation period is 6 to 9 weeks. Transmission occurs by percutaneous exposure to contaminated blood and plasma derivatives

(3).

Clostridium tetani is a gram-positive bacillus. It is an obligate anaerobe that forms endospores when essential nutrients or water are depleted. These endospores can survive adverse conditions such as heat, and chemicals such as alcohol. It releases a neurotoxin that enters the central nervous system via peripheral nerves or blood. The disease is characterized by painful muscular contractions, primarily the masseter (cheek) muscles and neck muscles. Death results when the spasms affect the respiratory muscles. The tetanus spores are ubiquitous in the environment and can contaminate wounds of all types. They are introduced into the body usually through a puncture wound contaminated with soil, street dust or feces (animal or human). Their incubation period is 3 to 21 days (1).

As for disinfection, a single spray or wipe of alcohol cannot guarantee disinfection of a surface contaminated with blood and/or other body fluids. Alcohol is not recommended for the disinfection of wounds because it causes rapid coagulation of blood, which permits bacterial growth under this layer of coagulum, thus facilitating infection. If used, however, the recommended contact time should be 10 minutes, which is only sufficient after detergents are used to remove the organic materials at the site of the wound. Furthermore, diluted bleach is the most effective agent against viral contaminants such as HBV and HIV whereby HBV is more resistant to chemical disinfection than HIV. Add to these the fact that most disinfectants are not enough to destroy bacterial spores, including *Clostridium tetani* spores.

Psychological Assessment

We were directed by experts in psychiatry to look for symptoms of PTSD (Posttraumatic Stress Disorder), anxiety and depression among children exposed to Darb-el-Haidar. A person is diagnosed with PTSD if he or she has been exposed to a traumatic event in which the person witnessed or was involved in events that threatened death or serious injury. The person's response involves fear, horror and helplessness. Some of the symptoms of PTSD in young children include repetitive play occurring in which themes of the trauma are expressed, frightening dreams and hallucinations are experienced, and feeling detached and estranged from others. Symptoms of anxiety include restlessness, being easily fatigued, irregular sleep patterns and difficulty concentrating.

Figure 0.1: Mourning El-Hussein

Figure 0.2: Darb-el-Haidar, Nabatieh, 1997

Figure 0.3: Darb-el-Haidar, Nabatieh

Figure 0.4: Qama

Figure 0.5: Qama

Figure 0.6: Three persons cut with the same blade minutes apart.

Figure 0.7: Scenes of physical contact from Dar-el-Haidar

Figure 0.8: Young participants

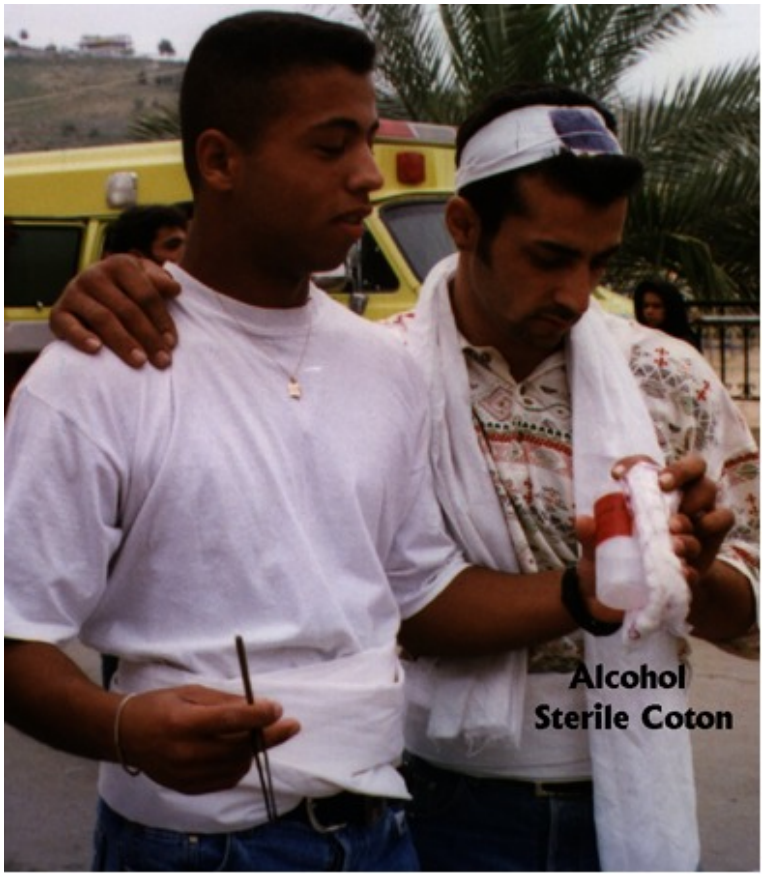

Figure 0.9: Examples of use of disinfectant.

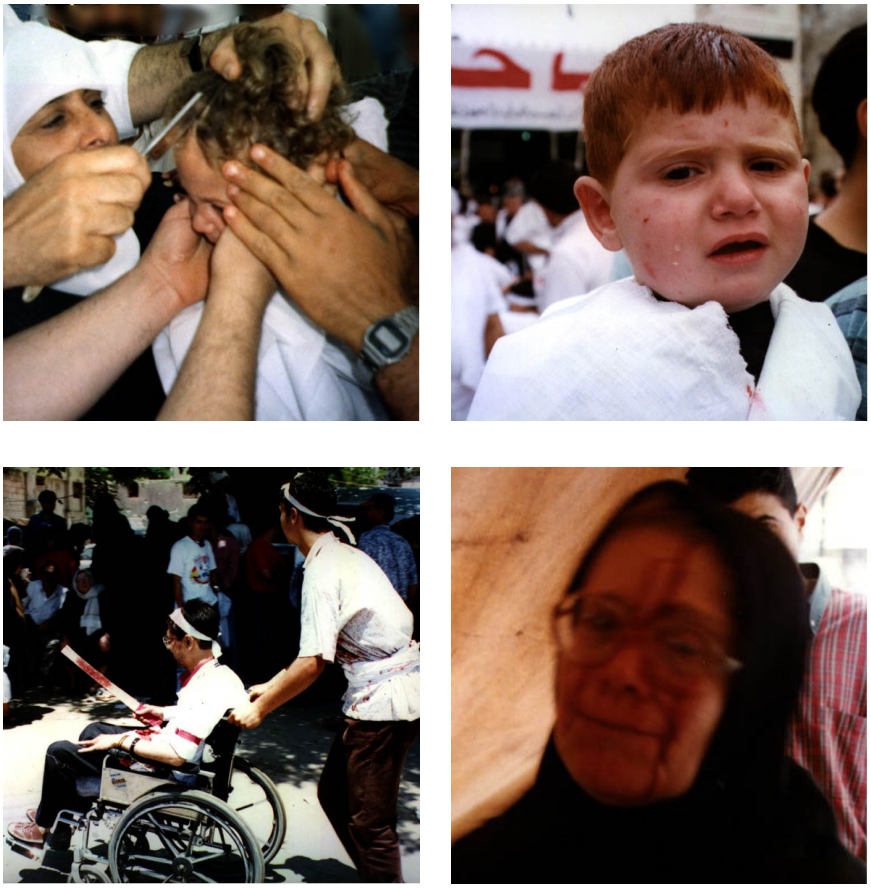

Figure 0.10: Young, handicapped and old participants

Figure 0.11: Red Cross team

0.5 Objectives

We set for ourselves the following objectives:

1. To investigate the impact of Darb-el-Haidar on the potential spreading of major infectious diseases (namely HIV, hepatitis B and C, and tetanus)
2. To investigate the possible adverse effects of Darb-el-Haidar on the mental health of participating children
3. To investigate the impact of Darb-el-Haidar on the relationship between the practicing individual and his society
4. To provide recommendations on preventive measures that should be taken, at different levels, to avoid any adverse health effects

0.6 Hypotheses

The hypotheses we formulated following our first viewing of the ceremony are:

- The health conditions prevailing during Darb-el-Haidar are not sufficient to prevent transmission of major infectious diseases namely AIDS, Hepatitis B and C, and Tetanus.
- Darb-el-Haidar causes an adverse effect on the mental and psychological well being of child participants.
- Darb-el-Haidar contributes favorably to the integration of an individual with his society and the overall unity of the society.

0.7 Methodology

We divided our study into three parts:

Interviews with doctors, hospital administrators, and Red Cross authorities : who gave us insight about physical health hazards, both potential and actual. The paramedics also told us about the preparations and primary care offered at the time of the event.

Interviews with religious figures : to study the social implications of the events on the practicing individual and the structure of the society and the degree to which Darb-el-Haidar plays a role in society.

Questionnaire : 135 practitioner completed a questionnaire of 30 questions. Fifty one of the individuals have at least one practicing child. The questions targeted the transmission of diseases, the mental health of the children and the preventive health measures taken by the practitioners.

Recorded observations on the days of Ashoura 1997 and 1998 : These were mainly photographs and recorded documentaries that demonstrate the activities done on the respective days, reflecting some of the physical, psychological, and social dimensions.

Study Population

Our target population was that of Darb-el-Haidar participants, which has a size of 2000-3000 individuals. These are overwhelmingly men and children, and only a few women were observed to take part in the ceremony. This population is concentrated mainly in the city of Nabatieh and adjacent villages, since it is in these areas that Darb-el-Haidar is localized as a well-rooted tradition. The age group here is of a wide distribution from infancy to old age (65+). Our sample consisted of 135 adult participants.

To assess the effects of Darb-el-Haidar on mental health, we set our age group between four and fifteen years. We selected this age group because it represents the segment of the population that is most likely to be affected psychologically by the event, as advised by Dr. H. El-Amine.

Due to the difficulty of extracting information from this age group and due to our lack of expertise in this domain, we chose to ask mothers as in proxy informants for their children. In effect, we collected information about 51 child, but we were not able to obtain an estimate on the size of their population.

Instruments and Tools

Our tool is a well-prepared questionnaire (attached at the end of this report) that aims at answering our hypotheses . The questionnaire was divided into two parts. Part A of the questionnaire, consisted of 30 questions was directed to adult participants 10 of which were open-ended. This part was concerned with several factors:

- Demographic information: Age, marital status, number and age of children, educational level, employment status, and current job.(Questions 1-6)

- General questions on participant relation to Darb-el-Haidar: why he does it, the age he began the practice, whether any other family members participate. (Questions6-8)

- Questions on preventive health measures: whether the participant buys a new blade or performs anything special prior to the ceremony; what he does with the cutting instrument after using it; what he does with his wound following the ceremony. (Questions 9, 22-23)

- Questions on any health implications due to Darb-el-Haidar: whether the participant ever fainted while performing, or needed any medical attention. (Questions 19, 22-23)

- Questions on awareness: whether Darb-el-Haidar could lead to the transmission of any diseases; if so, what are these diseases; if not, why? (Questions 26-28)

- Questions on behavior and health status. (Questions 10, 13, 15-16, 20-21, 24-25)

As for part B of the questionnaire, it consists of questions designed to assess whether any of the participating children suffer from PTSD, anxiety, or depression as a result of Darb-el-Haidar. These questions are based on the diagnostic criteria of the American Psychiatric Association. School performance, aggressiveness, sleeping patterns, and social relations of the child following the event were among the parameters included in the analysis.

The questionnaire was translated into colloquial Arabic, keeping the original meaning of the questions. An informed consent, for guaranteeing both the secrecy and safety of the data, was stated to the subjects before starting the interview. The surveyors practiced amongst each other to ensure that the questions were asked in a standardized manner. Finally, a pilot test was conducted before the major fieldwork began where two of the group members interviewed a few subjects, then the group reassembled to check and see if the questions were causing any problems or misunderstandings. No significant problems were identified and the interviews proceeded as planned.

Sampling and Data Collection

Before any fieldwork took place, and even before we started preparing for the work of the survey, the group made sure to obtain legitimacy, from which we got from the *Superior Islamic Shiite Council*, in addition to the approval of several other different figures including. This legitimacy was in the form of a letter signed and sealed by the council, stating our identity as medical

students and the fact that we are conducting research on the health aspects of Darb-el-Haidar.

Our work in Nabatieh lasted three days. During the first day, we visited nine different medical doctors that practice in Nabatieh. We asked them general questions as to their opinion regarding Darb-el-Haidar as well as questions pertaining to the cases they observe as a result of the ceremony. We also visited three hospitals in the area and asked them about the number of cases they receive as a result of Darb-el-Haidar. We also talked to Red Cross officials as well as to the paramedics as to their role the day of Darb-el-Haidar.

During the next two days, we conducted our survey in the streets with the highest proportion of people who participate in the ceremony. We made it our aim to be present during the Monday market period, because that is the time and place where crowds gather. We visited marketplaces, coffee shops and restaurants. For the part of the questionnaire that assesses the mental health of the children, we visited households and met with the mothers of participating children.

Data Entry and Analysis

After obtaining our results we used the SPSS Mainframe version 7.0 for data entry and analysis. The two sets of thirty-seven questions were coded to ease the process of data entry, processing, and tabulation where necessary.

0.8 Results and Discussion

Part 1 Interviews with Doctors

Nine doctors were interviewed. Four were general practitioners, three internists and two surgeons.

First we asked them their professional evaluation regarding Darb-el-Haidar. Eight of them expressed their concern for the lack of prevention against the effect of bleeding, fainting and transmission of infectious diseases. Only one did not consider the situation dangerous medically. Socially, the opinion was more divided. Three doctors talked of the negative psychological and social effects. Some of their concerns included the addiction some people develop to the act, the fear some experience, the prevailing state of unawareness, as well as the disgust that this ceremony creates in other people who watch it on television or see pictures in the media. The six others stressed on the prevalence of feelings of sacrifice, of belonging, of group spirit that creates cohesion between people. In other words, in their opinion, Darb-el-Haidar contributes to the increasing integration of the individual in his or her society.

Next we asked the doctors about the diseases and medical complications they have encountered due to Darb-el-Haidar. Since the doctors belonged to various specialties, some were not involved in the complications that may result. Those who did, however, reported an increase in cases such as sunstroke, deep wounds, fainting, lowering of blood pressure, and hemorrhage. As for hepatitis B and C, AIDS and tetanus, none of the doctors reported receiving any patient this year with these infections.

When asked whether the doctors thought Darb-el-Haidar may pose a threat to life, most expressed concern for young children, older people and people with cardiovascular diseases.

We last asked them for their recommendations. Three doctors advocated complete elimination of the ritual. Five suggested more prevention- such as refraining from using the same instrument, and from being in close proximity to other practitioners- in the spirit of respecting people's needs, and one had no comment.

Part 2 Interviews with hospitals' administrations

We visited three hospitals to inquire about the cases they have encountered. They were "El-Janoub" hospital, "El-hikmeh" hospital, and "El-Najdeh El-Shaabieh" hospital. The first lies in the middle of the square of Nabatieh where the ceremony takes place and thus takes most of the load. This year, a total of ninety-seven cases of fainting, twenty-two cases of sudden drop in blood pressure, and three case of deep wounds that necessitated blood transfusion were encountered. No fatalities related to Darb-el-Haidar were met, and only two cases of Hepatitis B, and two cases of AIDS were received in the past few months, with the patients having never been engaged in Darb-el-Haidar. It is quite interesting to note that the incidence of Hepatitis in general, and Hepatitis B in particular, is highest in South Lebanon, as seen in the following table.

It would be a grave error, however, to assume that this high rate is a result of Darb-el-Haidar. However it does raise some concern.

Part 3 Interviews with Red Cross

We met with Red Cross chief in Nabatieh, Mr. Fadl Zreik. Many issues were discussed about services provided by Red Cross volunteers the day of Darb-el-Haidar. According to Mr. Zreik, The number of bandages used during that day equals the number used in three years (about 20 large rolls). The day is well prepared for as some preparations, such as rolling of bandages, start

Time period	Beirut	Mount Lebanon	North	South	Bekaa	Unspes.	Total
Jan-Jun 1997	34	48	80	123	23	24	332
Jun-Dec 1997	48	53	60	137	13	53	364
Jan-Jun 1998	43	61	55	129	15	44	347

Table 0.1: Distribution of Hepatitis B cases in Lebanon, reported by the Mouhafazat. Source: Lebanese Epidemiological Newsletter June '97, Jan '98, and Jun '98

two months in advance. The number of volunteers usually involved on the day is 120, and they are distributed among ten tents. This constitutes a ratio of about one volunteer per twenty participants.

Survey I Adults vs. Physical Health

Demography

Our sample consisted of 135 Adults. They were all males and their ages ranged between 15 and 64 years.

Educational levels were distributed over a spectrum ranging from illiteracy (22%) to college degree (11%). (See Figure 0.12) As for occupation, 12% were students and the rest had occupation that ranged from unskilled labor to professional labor. (See Figure 0.13)

Results: Practitioners

Of the 65% who cut for themselves with their own blades, a quarter (equivalent to 17% of the total) share blades with brothers and friends. The rest 35% use the service of one of designated cutters present on the day of Ashoura.

90% of the individuals interviewed admitted close physical contact with friends during the ceremony. This contact involves holding hands, hugging, pushing or supporting each other.

During the ceremony is was observed that a lot of older men who, after cutting themselves, hit the ground with a Qama then hit their heads with it and repeat this over and over.

After the ceremony is over, 21% of our sample complete their life as usual with no special care for whatever consequences the ceremony had on them. 62%

go home to take care of the wound, and more half of these people (59%) only take a bath and do not bother with any kind of disinfection.

69% of the subjects denied the possibility of transmission of diseases as a result of Darb-el-Haidar. When asked why, the overwhelming majority insisted that the faith in God and the love of 'Al El-Beit' would not allow any disease complications. Some added that infection is not likely to happen because blood will be flowing out of, rather than into the body. One man claimed to know a person who was cured of cancer after Darb-el-Haidar; some said that if they do not practice this ritual they will have a year long headache—till next Ashoura; and still many said that Darb-el-Haidar eases the pain in their eyes.

Of the 31% who acknowledged the possible spread of diseases, 75% believed AIDS could be transmitted, whereas only 13% considered Hepatitis.

The average time spent in the ceremony is around one-and-a-half hour, and the number of cuts per individual ranged between one and forty, with an average of nine cuts.

Results: Designated Cutters

Out of the eight designated cutters we met in our survey, three claimed cleaning the blades after cutting at least two individuals. Also they said they would continue to use a blade has it fell to the ground- without cleaning it.

One designated cutter said he uses Hydrogen Peroxide (H_2O_2) as a disinfectant, while the others said they use alcohol.

On average around 150 individuals use the service of each designated cutter, as the designated cutters claim. During the ceremony, the designated cutter works in rapid succession, rendering the time interval between cuts on two different people too shorts- in terms of a few seconds.

Physical Aspects - Discussion

Blade sharing is quite common during Darb-el-Haidar, and this could be compared to the sharing of needles, a common way of transmission of HIV, HBV, and HCV. In addition to that, physical proximity of the people would allow blood contact and mixing. The high rate of bodily contact evident, which many a time could be tight contact, furthers the possibility of transmission of blood borne infectious agents including bacteria and viruses.

The frequent contact of the blade or Qama with the ground before hitting the wound raises concerns for the possible contamination of the wound with the spores of *Clostridium tetani*, the causative agent of tetanus.

Also it seems that a relevant proportion (up to 60%) of the practitioners do not take the event seriously on the levels of health and hygiene as they don't try to even take the simplest measures of cleaning/disinfecting their wounds, or, at times, even taking a bathe.

Is this due to ignorance? It seems that a few know that things might go wrong, even though they have only basic knowledge about the spread of diseases in general. It looks like there is some sort of indifference regarding the potential health hazards of Darb-el-Haidar going hand in hand with unawareness.

The long time spent in the ceremony, and the number of cuts per individual, in addition to the stress, both physical and psychological, explains well the cases of fainting, blood loss, sunstroke, and deep wounds.

The practices of the designated cutters are even more risky because the target is by far larger. It seems that the designated cutters lack the knowledge and/or appreciation of the risks at hand, and thus they may be working, even without knowing, at increasing the risks inflicted upon practitioners in Darb-el-Haidar. This is especially true when the blade is of the old fashioned type with no replacement utensils.

According to the literature review, *Clostridium tetani* spores are abundant is the street soil and dust. And if a blade falls to the ground and is reused, this would be putting many at the risk of getting tetanus. This also applies on those who hit the ground with their Qama.

Obviously, the methods of prevention and the hygienic standards are mediocre, and not at all in accordance with scientifically sound principles. This leads us to immediately assume that the incidence of HIV, HBV, HCV, and Tetanus among the people who practice Darb-el-Haidar and possibly their families would be extremely high. This was not found to be so. None of the people we questioned admitted to having ever had any of the aforementioned diseases, and none of the hospitals we talked to have any records relating such diseases to Darb-el-Haidar. However, the methods used show that we are dealing with a ticking time bomb that any time may result in disastrous effects on the health of the practitioners, their families and the people of Nabatieh in general Obviously, then, the risks involved in Darb-el-Haidar are substantial.

Survey II Children vs. Mental Health

28% of the children go on their own to the ceremony. This shows that a major part accepts and looks forward to this ceremony. This is further shown by the fact that 92% of the children act out and replay the events of Darb-el-Haidar over and over for months afterward. They do this as a game and a refreshing memory as they eagerly anticipate the next Ashoura and prepare for Darb-el-Haidar ten days before it happens. (Figure 0.23)

When parents were asked about any abnormal psychological behavior on the part of the child after Darb-el-Haidar, 10% said the children get afraid more easily and for no justifiable cause and 4% get more attached to their mothers. (Figure 0.18)

Concerning sleeping patterns, 12% of the children did experience a change in sleeping patterns such as sleeping less or disturbed sleep. (Figure 0.20)

As for performance at school, 6% showed decreased performance and concentration problems after Darb-el-Haidar compared to 10% who exhibit better performance. (Figure 0.22)

When asking the parents if they noted any change in the children's personality, we found out that 26% of the children showed mild aggressiveness. 4% noted increased isolation from friends and detachment from parents especially the father. (Figure 0.19)

Some psychological traumas result in panic attacks that manifest themselves in physical symptoms such as sweating and nausea. 4% of the children sweat a lot even in the absence of physical effort. Another 4% experience frequent nausea. (Figure 0.21)

Psychological Aspects - Discussion

In general, less than 10% of the children express serious symptoms of PTSD, anxiety or depression. Furthermore, not one child experienced all the symptoms at the same time. We cannot therefore justify our hypothesis; still we cannot reasonably conclude from our data that Darb-el-Haidar does not constitute a traumatic event for the child. It is more of an anticipated exciting event that they prepare for days in advance, and think of and replay all year long.

It is an opportunity for the child to join his community, his friends and his father and share with them their emotions. They are not forced to do this (according to their parents, who insist that the child who refuses to do this be left to his will). Moreover, and as a few psychiatrists we consulted informed us, trauma is usually the result of an individual exposure to a particularly stressful event, rather than a shared experience, the way Darb-el-Haidar is. It is undeniable, however, that the children cry when they are subjected to Darb-el-Haidar. Some children we talked to admitted to feeling initial fear at the second they are about to be cut. This fear, however, appears to be momentary as it is compensated for by the admiring stares of their friends and the encouragement of their parents.

However, it is important to note that we are not in any way trained to assess a child's personality. A psychiatrist or a psychologist needs several sessions with a child before he or she can come up with a diagnosis, so a few questions on our

part do not come anywhere near studying the hidden depth of the children's feelings, emotions and thoughts over the matter. All we can say is that the symptoms of trauma do not appear to be present in the children who practice Darb-el-Haidar. The results we got however do suggest the need for a more systematic and professional assessment to reach clear-cut evidence concerning this matter.

Social Aspects- Results and Discussion

One of the basic tenets in sociology is to avoid as much as possible ethnocentrism. Ethnocentrism is the process of judging the different aspects if society under study by comparison with the mother culture of the researcher. It isn't surprising to find people that are not at ease with ideas and behaviors of a different culture. Thus one should "live" the culture and acquire its spirit and appreciate its history and development to reach that state when he can give an objective analysis of what is going on. One should also appreciate the enormous cultural diversity not only among societies, but also within the society itself.

In order to reach the core of our topic, we first had to do a history review that reflects all the sociology, psychology, economy, and politics prevailed and prevailing in Nabatieh.

Durkheim, a well-known sociologist, emphasizes that religion is never just a matter of belief. All religions involve regular ceremonial and ritual activities in which a group of believers meet together. And in collective ceremonials a sense of group solidarity is affirmed and heightened. The participants feel taken away from the concerns of profane social life and into an elevated sphere. Ceremony and ritual in his view are essential for binding the members of a group together.

Ashoura in itself has always been a part of the Shiite tradition. At the dawn of the Shiite history, Ashoura consisted only of console gatherings where the Shiite Muslims meet and remember the tragedy of El-Hussein's death. This continued for around 350 years. In year 965 the first official and public ceremony for Ashoura was organized with directions from the khaliph. Roads were covered with black cloths, and women walked down the streets mourning and hitting their heads as a show of their grief. The next major development took place in Iran at the start of the 16th century, when the Safaoi rule began. The ruling power was Shiite, and Ashoura was a yearly ceremony.

As for the Nabatieh, the turning point happened in 1895 when a group of Iranian Shiite migrated to Nabatieh carrying their ceremony along and spreading it between the Shiites of Nabatieh.

In our study of the sociological health aspects of Darb-el-Haidar, we first prepared our discussion in a Freudian perspective. According to Freud, the lack

of basic commodities of life leads to a drive of self-destruction. With this in mind, we expected to find a low socioeconomic level prevailing in the community of hitters in Darb-el-Haidar. When we conducted our survey, however, our view took a different route. As you see in Figure 0.13, a majority of 80% belong to an average socioeconomic level. As for the educational level, our data (Figure 0.12) show that there is an approximately even distribution of all levels including college students. In this view of these figures, we expect that the basic requirement for a near average life are secured, and thus we can relate Darb-el-Haidar neither to privation, as Freud would have assumed, nor to lack of education.

Among the factors that we thought might be involved in this ritual are team spirit and peer pressure. In fact, our survey shows that 10% of the participants join Darb-el-Haidar because their friends encourage them to. Once the person joins a group of hitters, individual psychology gives way to group psychology thus increasing the communication and overlap among the members in a process that increases social unity. Maybe this can explain the parental observation that reveals that 21% of the kids gained a "team spirit" after participating in Darb-el-Haidar.

As we were discussing our different sub-topics, society isolation was introduced as one potential result of Darb-el-Haidar. However, our observation didn't support our claim. Indeed, this year when we attended the ceremony of Darb-el-Haidar we noted the presence of a lot of people who were not from Nabatieh, and they were welcomed by the locals, as the head of Municipality of Nabatieh confirmed.

According to Cazeneuve, an authority on ritual development in societies, the role of the ritual is to secure social integrity and stability, and this we can see in Nabatieh. Add to this that Darb-el-Haidar presents itself as a means to release people's antisocial impulses.

In this framework, we find that all kind of people, old and young, males and females, normal and handicapped, use Darb-el-Haidar as a release point to show their grief on El-Hussein's death, in addition to whatever refusal they may have on whatever matter they personally suffer.

At this point, it can only be added that Darb-el-Haidar could not have been introduced nor perpetuated in Nabatieh has it not found the proper setting in the souls of the local people, and has it not converged with the psychological structure prevailing.

0.9 Recommendations

The following recommendations are directed to ameliorating the physical implications of Darb-el-Haidar. No measures directed to minimize possible child psychological implications are presented, as they would be of uncertain value since no clear-cut evidence of such implications was found. Similarly, no comments are made on the sociological implications since these implications were not concluded to be negative and hence not requiring improvement.

Therefore, with respect to attenuating the risk of disease transmission and other health effects, we divide our recommendations to three parts, first to the participants themselves, then to the authorities, and finally to the health care officials:

Recommendations to participants:

1. Adopting a ratio of one cutting instrument per person and stop the current practice of sharing and exchanging blades, especially as is seen in the case of children. Such a change would be the most significant in eliminating transmission risks, as it would stop the transfer of pathological entities that would survive the brief period of disinfection implemented by participants between cutting different individuals (such as Nonenveloped viruses, *Clostridium tetani* spores, etc.), as well as the wider array of microbes that are transferred when the period of disinfection is neglected altogether due to carelessness, haste, or camaraderie of the participants (such as Hepatitis B virus, HIV), as was noted by members of the group. Such a change could practically be carried out by establishing booths that dispense low-cost, disposable razors and blades at the entry of the ceremony area, or at sites inside that are adjacent to well-frequented places (Red Cross tents, juice stands). These items could be sold for the small cost that they are worth, or better still, sponsored by advertising companies that may have an interest in promoting themselves through such a public occasion.

2. The idea of one blade per person would of course need some sort of promotion to attract the participant, and especially the father of participating children who now has to buy several blades each ceremony, one for each child. This could be achieved by a campaign spread over the local media as well as banners and posters hung in public places, preferably a few weeks before the ceremony to allow ample time for all citizens to be aware.

   However if the procedure of blade sharing is unfortunately found hard to eliminate, due to either stubbornness, habit, or indifference, some

changes still should be considered to decrease the role of the blade in disease transmission:

3. Using detergents in conjunction with currently used alcoholic disinfectants should be introduced, since alcohol alone is not capable of removing organic material residues left by various pathogens.

4. It would be best to have the cutting instruments permanently bathed in the disinfecting medium, and only removed at the exact instant of use. This would prolong the disinfecting period to ensure effective killing of most pathogens. It would also avoid the current risk of possibly not wiping the entire blade with the currently used soaked disinfecting cloth (i.e. missing a part due to haste), as well as the risk of evaporation of the highly volatile alcohol due to any significant time lapse between applying cloth to blade. Such a constant incubation measure could be applied by placing vats filled with disinfectant in the sites where cutting takes place. These vats should refilled constantly and accessed by the minimum number of blades possible, preferably one such vat per one designated cutter (i.e. involved in cutting many heads), to minimize the spreading of spores and other resistant pathogens.

5. Care should be taken to disinfect the blades directly following cutting, to prevent the drying of blood. This is because in some cases, like HIV, dried virus titers have a decreased rate of inactivation by alcohol when compared to wet virus titers on the blade. Thus, a disinfecting procedure is a more efficient eliminator of transmission risks when applied to a blade with fresh, wet blood than to a blade with dried blood.

6. Avoiding as much as possible physical contact with others. For example, they should allow only Red Cross volunteers to carry unconscious or fallen participants. This will eliminate the chance of reciprocal infections due to mutual lacerations, since the former, unlike the participants, will most likely be well dressed for his work.

7. To prevent the significant cases of fainting secondary to blood loss, the process of Darb-el-Haidar should be reduced in intensity based as judged by trial-and-error. For example, if a person faints due to hemorrhage after beating himself during two rounds around the ceremony area, the year after he should limit his participation to one round only.

8. To prevent the cases of fainting due to nausea (sickening effect of blood odor) and heat (sunstroke), individuals should take frequent breaks in shaded areas, possibly signaled by each group leader through the loudspeaker he uses to initiate chants.

Recommendations to authorities

1. To increase awareness among the public of the possible risks of transmission of blood-borne diseases by the practice of Darb-el-Haidar via campaigns that stresses positive and practical prevention measures aimed at eliminating these risks. Such measures can be the eight recommendations we made to the participants.

   This can be done by health education campaigns operated by the ministry of Health or by the municipality of Nabatieh or even by the social workers and religious institutions in the region. The campaigns could include both lectures by experts and banners in public places.

2. To encourage either a widespread immunization plan against possible transmitted diseases that have vaccines, such as Hepatitis and tetanus, or require screening of participants to ensure that they do not carry any of the diseases considered during the day. Although the second measure does not protect against HIV transmission, as it has no vaccine yet, it is more feasible for the other infectious diseases because immunization need only be given once to the participant, while screening should take place before each ceremony every year, and thus is more costly. Of course both these plans require considerable planning by the authorities to become feasible. We are aware of this but choose not to deal with the details here.

3. The designated cutters should be given a number lectures and training sessions to let them know what they are really involved in and the risks they are dealing with. Also such training sessions should include basic first aid methods and a well-studied method of cutting and/or precautions to-be-taken while cutting.

4. Finally, if funds are available, and since a lot of blood loss occurs on the day, to establish a nearby blood transfusion facility to quickly deal with any potential complications due to hemorrhage.

Recommendations to health care officials

1. We recommend that Red Cross coordinators urge their volunteers to adopt a more effective ushering role on the role; specifically, attempting by not too interfering means to limit the size of groups. With smaller groups, less shoving and chaos, and hence less chances of infection by body contact are more likely.

2. Hospitals should make sure they keep record of all diseases reported by Darb-el-Haidar participants. This would make it easier for future

researchers to determine whether or not there is a correlation between Darb-el-Haidar and disease spreading.

0.10 Conclusions

From our converging sources, namely personal observations, health care organizations and questionnaire sampling, we can conclude the following: Despite the presence of sufficient facilities on the day providing curative treatments, there is lack of awareness, leading to an insufficient level of health preventive measures. This however was not corroborated by documented records of diseases due to insufficient record keeping of the hospitals approached.

No significant changes in mental aspects studied were noted in the participating children. However, this does not rule out a correlation between the ceremony and mental health since not all possible mental changes were studied (the study was restricted to anxiety, depression, and PTSD) and the researchers involved do not have the expertise in this field to make full mental assessment. For example we could not be able to test the reliability of the answers.

No negative health implications were noted in the social health aspect. Source indicate however a contribution of the ceremony to favorable integration of the participant with his society.

Thus the over all impact of Darb-el-Haidar is clearly a complex and a multifactorial issue. More studies in each of the three health aspects are needed to reach more reliable conclusions than those mentioned.

Appendix A: Limitations & Difficulties

As with all studies, our project on the health effects of Darb-el-Haidar had its own unique difficulties and limitations. These are listed below:

- Our prime limitation was time, as the two-week period gave us the chance to collect only a limited sample, and that may have led to some bias in the results. Also, the data may not be enough for us to make conclusive and comprehensive findings that validate our hypotheses.
- Second was the distance factor, as the sampling area was two hours away from Beirut and thus was not possible to access easily and at our leisure.
- Another issue was the lack of previous studies regarding the matter to direct us in our work. We thus had to formulate most questions of the questionnaire ourselves without being able to adopt much from other sources.
- The fact that our study was conducted more than a month after the Darb-el-Haidar ceremony this year might have led to inaccuracy in the answers to the questionnaire, due to forgetfulness and fading of memory of the occasion.
- Moreover, our study is considered a sensitive topic to our sample unit, as Darb-el-Haidar is an age-old tradition and there is almost no inclination for them to change any aspect of it. Most people had a tendency to adopt a defensive stand, leading to unreliable answers. This limitation might have been considered minor if the interviewers were all from Nabatieh or even the South, since that may ease cultural differences and apprehension, but only two members of the group were from Nabatieh, and the others might as well be foreigners.
- Due to the poor cellular phone signal in Nabatieh, there was a problem in communication between various subgroups during fieldwork, which led to some inefficiency in handling the sampling task.
- Lack of proper hospital record keeping pertaining to cases of infectious diseases we considered in the three hospitals made us unable to determine the presence of a cause-effect relationship between lack of proper prevention measures and the spreading of disease.

Appendix B: Histograms

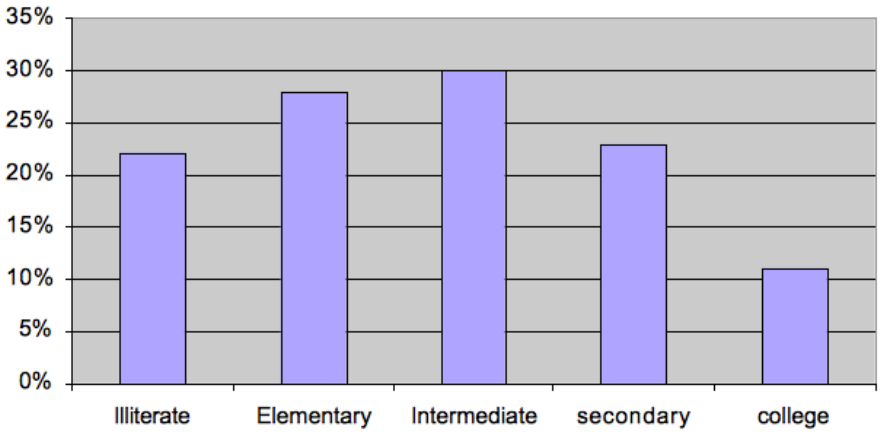

Figure 0.12: Distribution of schooling among participants

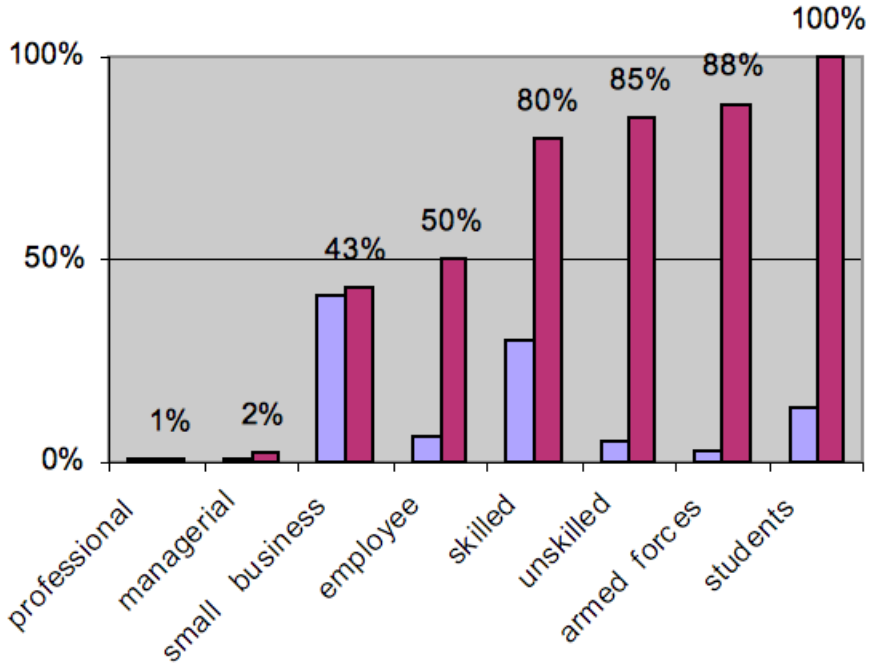

Figure 0.13: Distribution of occupation among participants (percentiles represent Cumulative percentages)

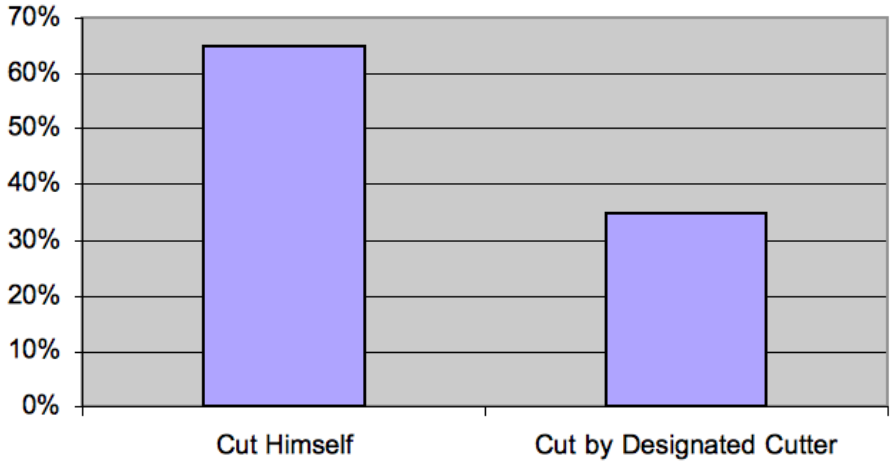

Figure 0.14: Percentage of the participants who use the services of a designated cutter

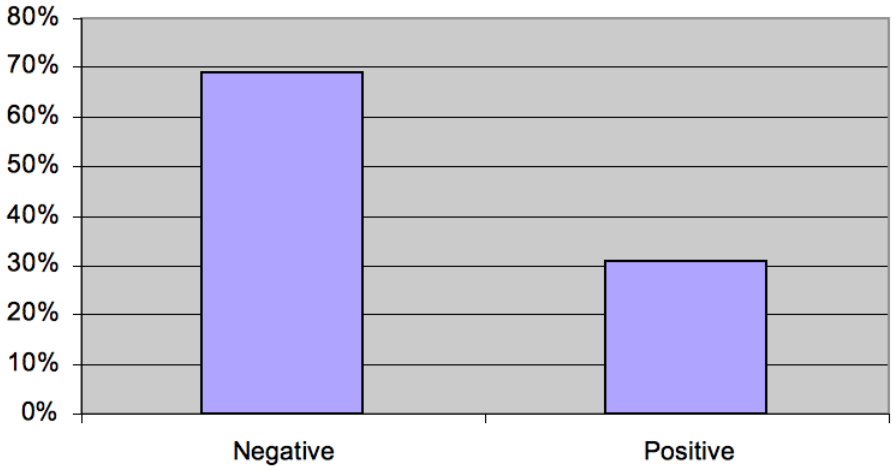

Figure 0.15: Percentage of the participants who deny/admit the possibility of disease transmission via Darb-el-Haidar

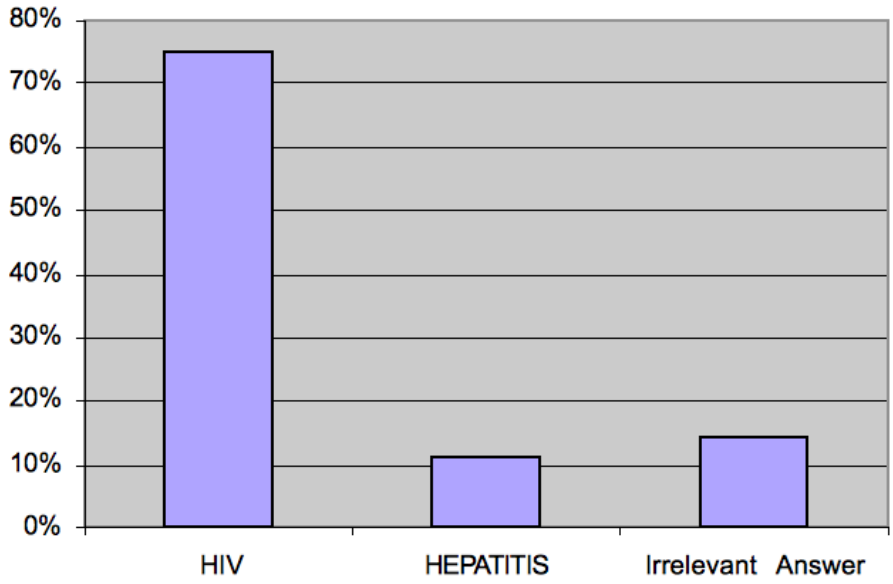

Figure 0.16: Percentages of the participants who believe AIDS/Hepatitis could be transmitted

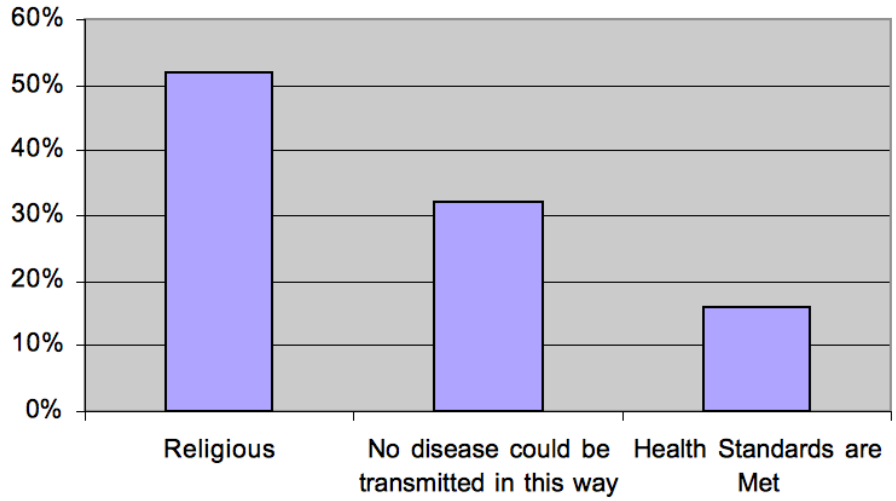

Figure 0.17: Why no diseases could be transmitted?

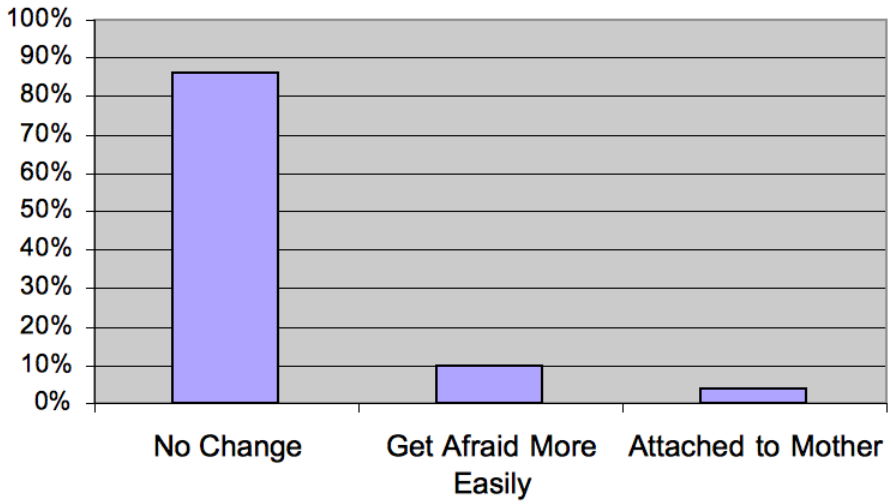

Figure 0.18: Psychological manifestations on Children after Darb-el-Haidar

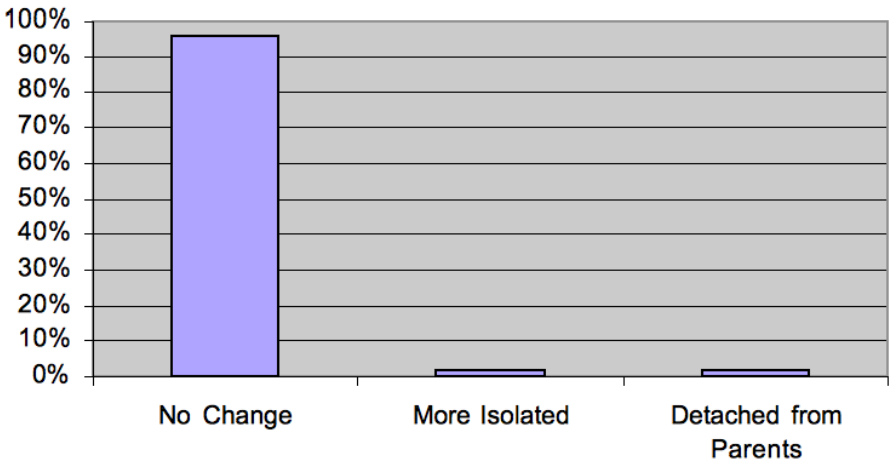

Figure 0.19: Personality changes of Children after Darb-el-Haidar

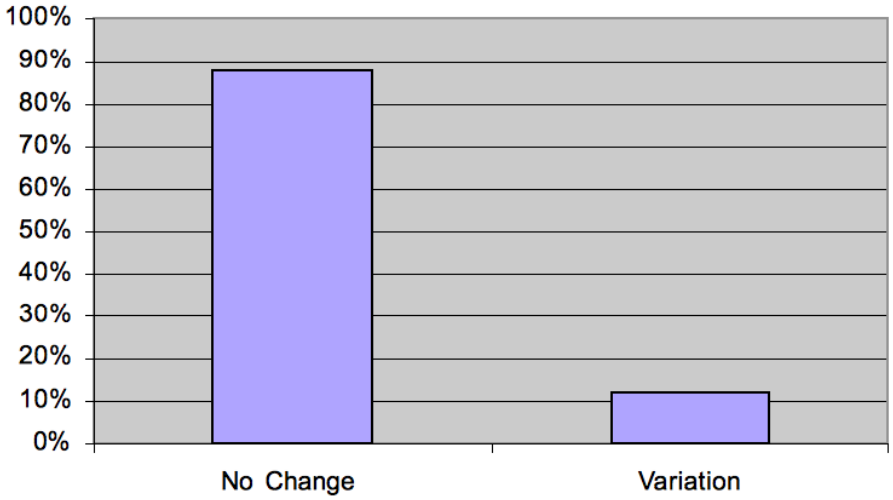

Figure 0.20: Manifestations at the level of sleeping patterns

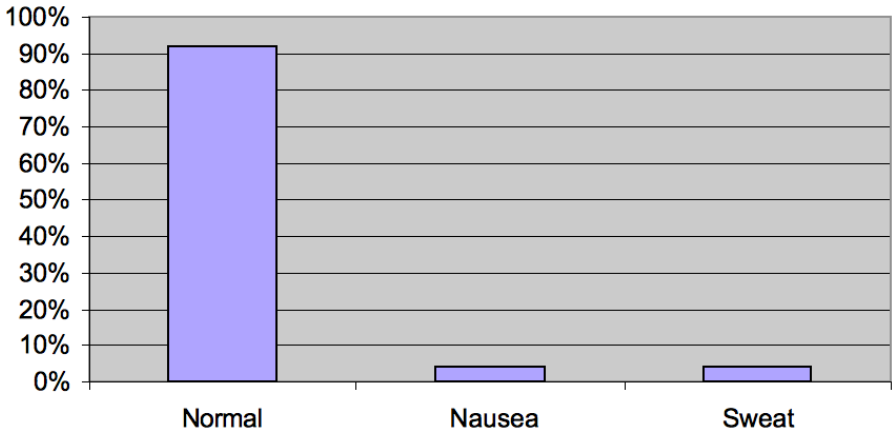

Figure 0.21: Manifestations on the level of physical symptoms

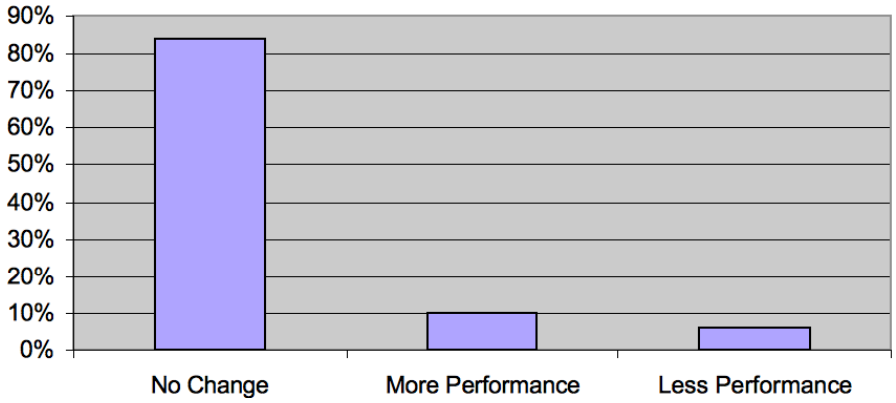

Figure 0.22: Manifestations on the level of schooling

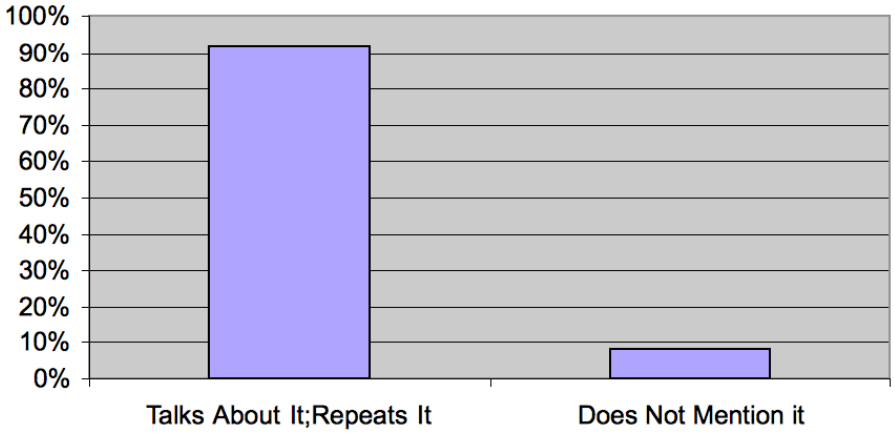

Figure 0.23: Relation of the child to the memory of the events of Darb-el-Haidar