

University of Applied Sciences Hamburg

Department of Life Sciences

Course of Public Health

**First Aid for Preschool Children with Different
Cultural Backgrounds**

Master Thesis

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Contents

1	Introduction	4
1.1	Childhood accidents as risk factors	4
1.2	The settings approach	4
1.3	Characterization of the community	5
1.4	Profiles of the municipal child day care centres	5
1.5	Planning of the first-aid-project	6
2	Implementation	7
2.1	The programme of the first-aid-course	7
2.1.1	Day 1: How to comfort an injured child?	7
2.1.2	Day 2: How to call for help?	9
2.1.3	Day 3: How to bandage cuts and grazes	11
2.1.4	Day 4: Being aware of dangers of burns	13
2.1.5	Day 5: How to avoid insect stings	14
3	Social diagnosis	17
3.1	General problems encountered by migrant families	17
3.2	The risk of accidents of migrant children is increased	17
3.3	The social situation of the families living in the individual catchment areas of the five municipal day care centres of Hamburg Horn	18
3.4	Frequency, types and causes of accidents occurring at the municipal child day care centres	19
3.5	What are the “wants”?	19
3.5.1	What do the parents want?	20
3.5.2	What do the managers want?	21
4	Epidemiological diagnosis	22
4.1	General problems due to the disadvantaged social situation of migrant families living in Germany	22
4.2	Impact of the social disadvantages on the health status and the health risks of children with migratory background	23
4.3	Frequency, types and causes of childhood accidents reported in Germany	24
5	Behavioural and environmental diagnosis	27
5.1	General aspects influencing the health-behaviour of migrant families	27
5.2	Environmental factors influencing the health behaviour of migrant families	28
5.3	Determinants influencing the development of prosocial behaviour	28

6	Educational and organizational diagnosis	30
6.1	Beliefs and attitudes according to the social and cultural background	30
6.2	Concepts of preschool education in respect to health-related programmes. . .	31
6.2.1	Learning as a social process to favour the cognitive development . . .	31
6.2.2	Supporting the development of identity and self-efficacy	32
6.2.3	Integrating aspects of different cultures to promote the development of intercultural competences	33
7	Administrative and political diagnosis	34
7.1	Requirements to realize the first-aid-project	34
7.2	Does the objective to improve the perspectives of children with migratory background fit with existing policy?	34
8	Evaluation of the programme of first aid	36
8.1	Development of appropriate means for evaluation	36
8.2	Implementation of a pilot project to test the programme	37
8.3	Process Evaluation	37
8.3.1	Evaluation of day 1: How to comfort an injured child?	38
8.3.2	Evaluation of day 2: How to call for help?	39
8.3.3	Evaluation of day 3: How to bandage cuts and grazes?	40
8.3.4	Evaluation of day 4: Being aware of dangers of burns.	41
8.3.5	Evaluation of day 5: Which subject did you enjoy the most?	42
8.3.6	Evaluation of the language skills	43
9	Impact Evaluation	45
9.1	Answers of the educators	45
9.2	Answers of the parents:	45
10	Abstract	47
11	Attachment	52
11.1	Leaflet and Information letter	52
11.2	Questionnaires	56
11.3	Traffic poster	65
11.4	Bike song (Fahrradlied) by Rolf Zuckowsky	66
11.5	Pictures	67
11.5.1	Day 1	67
11.5.2	Day 2	68
11.5.3	Day 3	69
11.5.4	Day 4	70
11.5.5	Day 5	71

1 Introduction

1.1 Childhood accidents as risk factors

Accidents are the leading risk factor endangering the health of children in industrialized countries. In Germany, children of more than one year die more frequently due to accidents than due to natural causes of death [1]. Up to the age of 15 years, injuries and intoxications are mainly caused by accidents and represent the leading causes of death. In young children the majority of accidents happen at home. In school children, traffic accidents play a major role.

As shown by different experts, the majority of childhood accidents (60% to 80%) are preventable by appropriate precautionary measures [2, 3]. The frequency and severity of childhood accidents can be markedly reduced by creating a children-friendly environment, by providing technical measures of security, by offering an adequate supervision and by providing appropriate information about preventive measures to the parents. Compared to other European countries, the situation concerning childhood accidents in Germany is unfavourable. Examples from Sweden, the Netherlands and Austria have shown, that efforts in prevention markedly reduce mortality and morbidity due to accidents [4].

The association between childhood accidents and the socio-economic status of their families has merely been investigated and national data are lacking. However, several regional investigations have shown an association of an increased frequency of accidents and a low socio-economic level [5, 6]. This association was especially high in respect to traffic accidents and burns. Concerning environmental risk factors, another study has shown an inverse correlation of traffic density and socio-economic status [7]. A recent report from Southern Germany demonstrated that children with another nationality than German had severe accidents more often than German children [8].

Since migrant children were shown to have an increased risk of severe accidents, measures of accident prevention seemed to be of particular significance specifically for this group of the population (“target group”). Thus, it was suggested to integrate a course of first aid including preventive elements into the preschool education programme.

1.2 The settings approach

Migrant families represent a target group which is difficult to reach by traditional institutions and organisations of medical assistance and social welfare. Therefore, measures of health promotion and prevention have to be based on approaches, which aim to reach people at the places, where they work, live, and play (“settings approach”). In community health promotion, typical settings are defined as companies, schools, nurseries, old people’s homes and hospitals. They provide adequate conditions to develop “fitting solutions” if the causes of health problems are correctly identified and if the needs, motivations and resources of the

targeted population are adequately taken into consideration.

For the current programme of first aid, the settings of the municipal child day care centres located in a socially disadvantaged district of Hamburg were chosen.

1.3 Characterization of the community

As published by the Landesamt Nord in 2004, the statistical profile of this district of Hamburg (Hamburg Horn) shows several characteristics of an area of social concern: the number of inhabitants per km² in Horn is much higher compared to the average of Hamburg (6178 versus 2271). The average living space in Horn (59.2m²) lies below the average living space of Hamburg citizens (71.4m²) and the proportion of social housing is higher (20.9% versus 16.4%). The proportion of unemployed people and the proportion of people living on social welfare in Horn is higher compared to the average of Hamburg (unemployment: 10.0% versus 7.3%; social welfare: 10.2% versus 7.0%). The proportion of foreign residents in Horn is higher (21.8% versus 15.3%) and the proportion of foreign pupils (28.6%) markedly exceeds the average of Hamburg (18.2%). The number of road accidents registered in Horn is comparable to the average number of accidents in the city of Hamburg.

1.4 Profiles of the municipal child day care centres

The municipal child day care centres located in Hamburg Horn are public institutions without a religious background. They belong to the “Vereinigung Hamburger Kindertagesstätten”, managed by the city of Hamburg. There are five centres in Horn, which are attended by many children with different cultural backgrounds (see section 2.1). The individual centres care for total numbers of 109 to 235 children. The elementary sections of four out of five day care centres of Hamburg Horn are attended by 60 to 90 children. One bigger centre provides an elementary section which cares for 170 children. According to their different size, the number of staff varies between 13 and 21. All five child day care centres are whole day care centres. They are opened from Monday to Thursday from 6.00 am to 6.00 pm and on Friday from 6.00 am to 5.00 pm.

The municipal child day care centres have the objective to create a health-friendly daily routine programme. This includes the provision of healthy nutrition (e.g. substantial amounts of vegetables and fruits; tee or water instead of sweet drinks; whole grain products instead of white bread). Several rules of daily hygiene have been introduced (e.g. washing hands before eating, brushing teeth after eating). In addition, the promotion of physical exercise plays an important role. This includes sufficient periods of time to play at the playground, regular offers of physical exercise, psychomotorical activities, and additional swimming lessons. Two of the centres additionally offer regular programmes based on special relaxation methods.

Besides the daily routine programme, three of the five centres offered at least two health-related projects during the last twelve months: visit at the fire brigade, workshops about

healthy nutrition, excursions to the countryside, programmes teaching dental hygiene, visits at an environmental centre, cooperation with a football club. Two of these projects were evaluated by the staff.

All five child day care centres cooperate with different institutions within the youth and health welfare system. Most of them foster occasional or regular contacts to several therapists (e.g. ergotherapists, physiotherapists, logopaedists, ecotrophologists) and to medical specialists of paediatrics, dentistry and ear, nose and throat. Additionally, some of the centres are in contact with institutions specialized on the diagnosis and treatment of developmental delays and with institutions caring for children of socially disadvantaged families. To enlarge their offers for physical education, many centres are in contact with managers of swimming-halls, indoor-playgrounds and other child day care centres providing playgrounds.

According to the guidelines of the “Vereinigung Hamburger Kindertagesstätten”, the staff of the individual centres regularly participates in first-aid-courses.

1.5 Planning of the first-aid-project

The first-aid-project was planned comprehensively on the basis of the PRECEDE-PROCEED Model: The **PRECEDE** framework comprises the **P**redisposing, **R**einforcing and **E**nabling **C**auses in **E**ducational **D**iagnosis and **E**ducation. The **PROCEED** framework provides additional steps for **P**olicy, **R**egulatory and **O**rganizational **C**onstructs in **E**ducational and **E**nvironmental **D**evelopment [9].

The model suggests nine phases of planning: Five phases of assessment (social diagnosis, epidemiological diagnosis, behavioural and environmental diagnosis, educational and organizational diagnosis), the phase of the implementation and three phases of evaluation (process evaluation, impact evaluation, outcome evaluation). The PROCEED-phases served as a guide for developing the first-aid-programme as described below.

The aim of the present study was to design a programme of first aid, which is suitable for children with different cultural backgrounds. According to a recent study in German kindergartens, children with migratory background are generally less involved into project activities compared to children of German origin [10]. Significant differences were documented in respect to four fields of action: “Role plays”, “group discussions”, “picture books” and “story telling”. Obviously, these fields of action are characterized by the fact, that they are based on language skills. To reduce problems due to language difficulties, the approach of the present programme included many non-verbal elements (such as body expressions, symbols and pictures). Our hypothesis was, that this approach might render the programme suitable for children with different socio-cultural backgrounds. To evaluate this hypothesis, the involvement of migrant children into several elements of the programme was observed and compared to the involvement of German children (see section 8).

2 Implementation

Based on elements of social learning theory, a big hand-puppet was used to model situations requiring interventions of first aid (e.g. a child who was injured due to an accident at the playground). Thus, the children were motivated to develop issues of social behaviour.

Furthermore, the programme included age-appropriate tasks, which prompted the children to manage simple interventions of first aid (e.g. to bandage cuts and grazes).

Preventive elements focused on traffic-safety (e.g. the use of bike helmets and appropriately equipped bikes), the awareness of dangers of burns and the prevention of insect stings.

2.1 The programme of the first-aid-course

The programme contained five sessions (scheduled on 5 subsequent days) lasting between 45 and 60 minutes. Each session focused on an essential issue of first aid and consisted of several elements as described below.

Most of the materials used during the course were produced by the project leader. For each group of children, a large poster (the “first-aid-poster”) was prepared. This poster was planned to be completed during the different sessions of the course. Another poster dealing with aspects of traffic-safety was provided by the American Red Cross which offers the “First-Aid-for-Children-Today”-(FACT)-programme (fig.14, p65).

The educators were asked to prepare boxes (white with a red cross in the middle of the top) together with the children. These boxes were used to store the first aid materials, the children were going to receive during the course (“first-aid-kits”, fig.43, p72).

Before starting the project, the centres were informed that the ideal number of children per group was 10. Finally the size of the groups varied between 7 and 15 children. With one exception (represented by a group of German children), the groups were composed by approximately 70% of children with migratory background and 30% of children with German origin. Frequent origins of the migrant children were Turkish, Westafrican, Afghan, Yugoslavian and Russian. The age of the children was 5 (76.8%) and 6 (23.2%) years. The sexes were distributed equally (boys: 51.6%, girls: 48.4%).

2.1.1 Day 1: How to comfort an injured child?

After welcoming the children, they were asked to sit down forming a circle and to put their first-aid-boxes in front of them (fig.15, p67). The project leader introduced herself and subsequently asked the children about their names and ages. Each name was written on an adhesive tape which was attached to the clothes of the respective child.

To introduce the subject of first aid, the project leader asked the children about the sign of the “Red Cross” on their first-aid-boxes. (Have you ever seen the cross (red or green)

anywhere else? What does it mean? What about the cross on the emergency car? Who is sitting in this car?)

After discussing important signs and tools of first aid, the children were asked to listen to a short story which was told using a big hand-puppet (“living puppet”) called “Pelle”. Pelle was playing at the playground. He decided to climb on a climbing frame. When he reached the top, he jumped down. Unfortunately his backpack got caught between two bars. Instead of jumping, Pelle dropped down and bumped his lower leg on the climbing frame. Therefore he was crying, which was illustrated by big tears sticking to his face. At this point, the children were motivated to become involved into the story and to ask Pelle what had happened to him. Their different ways to comfort Pelle (fig. 16 and 17, p67) were noted by the educators who observed the children. After each attempt of comforting, Pelle told the children that he already felt much better. Each child who comforted Pelle, was allowed to take away one of the tears and to stick it to a face made of paper which looked like the face of Pelle. At the end of the session this face was pasted on the left upper quadrant of the first-aid-poster (fig.18, p67). To demonstrate the positive effect of being comforted, a second face, showing Pelle in a good mood was pasted next to the sad-looking face (fig.40, p72) .

Afterwards it was shown to the children, that the injured child (Pelle) felt better after being covered with a blanket (fig.19, p67) and having something to drink. Subsequently, one of the children was sent away to get a cool-pack out of the fridge. The cool-pack was demonstrated to the children who were touching it in order to feel its cooling effects. One of the children was asked to put the cool-pack on the contusion. It was explained, that the cool-pack should be kept not only for some minutes but for a “long period” (about 10 to 15 minutes). Afterwards the children were motivated to ask Pelle whether he felt better. Pelle told them that his pains were markedly reduced. He tried to get up and to walk. Fortunately he was able to go home to see his mother.

The session was terminated by offering a cool-pack to each child. The children were asked to store the cool-packs in their boxes (first-aid-kits) and to put them into the fridge when taking the first-aid-kits to their homes at the end of the course.

The intention related to this element of the programme was to favour the development of an empathic concern leading to an appropriate action of helpfulness and assistance. The idea of the element was inspired by the German book “Ich mach dich gesund, sagte der Bär” by Janosch [11]. In addition, the application of a cool-pack was demonstrated and its pain-relieving effects was explained.

How it worked:

The degree of activation varied considerably between the different groups of children. In some groups, most of the children got involved into the activity and had several different ideas to comfort Pelle. Usually a few children started spontaneously to caress the puppet. Subsequently this activity was imitated by others. Furthermore, some children had the idea to serve Pelle something to drink, to put him into a comfortable position or to cover him with a

blanket. A few children even started to tell him a story, to spend him a game (or another toy) or to sing a song. In contrast, other groups were only partially involved. Probably several children of these groups were embarrassed due to the unusual situation of being taught by a previously unknown project leader.

2.1.2 Day 2: How to call for help?

The second session started with preventive elements dealing with aspects of traffic-safety. Initially, the children were asked to discuss the safety-measures which were shown by a poster (fig.20 and 21, p68). The poster shows how different animals behave safely on the road, e.g. by crossing the road using a zebra crossing and by wearing helmets when cycling or roller blading (fig.14, p65).

As a further element of prevention, a German song dealing with an appropriate bike equipment was used (“An meinem Fahrrad ist alles dran” by Rolf Zuckowsky, fig.14, p66). After having listened once to the song, the equipment was demonstrated (a bike-light, a reflector, a bell, a brake), explained and discussed. While playing the song a second time, the children were motivated to form a chain and to dance a polka (fig.22, p68). This polka included some gestures, which were demonstrated by the project leader in order to express the content of the song by gestures. In respect to prevention, this element was of particular interest, since many children stated, that they have already started to cycle on their own.

For the next part, a high level of concentration was needed. Therefore a special mode of interaction was introduced. Each child received a coloured ball and was asked to stick his / her adhesive tape (labelled with his / her name) to his / her ball. The children were sitting in a circle. It was explained, that the project leader is going to ask some questions and that each child, who wants to give an answer should throw his / her ball into a big bowl standing in the middle of the circle. Then the team leader chose one or several balls and asked the respective children for their answers. If the children did not know the expected answers, the correct answers were given, explained and discussed.

The leading question of this part was: How can I look for help in case of an emergency? The children were asked:

1. Whom would you look for in case of an emergency? The expected answers were:

- mother or father
- educator
- neighbour
- friend

2. What can you do if there is no adult around?
 - use a phone / mobile phone and telephone for help
3. Which number do you have to dial?
 - 112
4. Who is answering?
 - the rescue service of the fire brigade
5. What do you have to say? You answer the questions:
 - who is on the phone?
 - where did the accident happen?
 - what has happened?
 - then you wait for further questions

Since the fifth point was important but also quite difficult to remember, the hand-puppet Pelle was used to model the situation of an emergency phone-call. It was explained, that Pelle was very upset because his friend just had a bike accident. Now his friend was unable to move his leg and couldn't walk any more. Since Pelle did not find any adult person to help, he decided to telephone for help. He tried to remember the phone number of the rescue service and fortunately he knew that he had to dial the 112. After having mentioned his name, he explained the location of the accident (street and house number). He reported the accident and the injury of his friend. Before finishing, he was waiting for further questions from his phone partner of the rescue service.

Afterwards each child was motivated to telephone for help using a mobile phone-dummy (fig.24, p68). Before starting, each child had to dial the 112 and to invent an emergency situation, which he / she was going to report. The project leader took the role of the rescue service. If the children forgot to answer the important questions (who is speaking?, where did it happen?, what has happened?) spontaneously, the project leader asked the respective questions.

At the end of the session, the children were asked to put the mobile phone-dummies into their first-aid-kits. One of the phone-dummies was pasted on the first-aid-poster (fig.23, 68). In addition one or two children were asked to write the 112 on the right upper quadrant of the poster.

How it worked:

The children obviously enjoyed to discuss the security-measures used by the animals shown on the traffic-poster. In general the children were very occupied by the detection of various details illustrated on the poster.

The children liked to listen to the bike song and to discuss the constituents of an appropriate bike equipment (e.g. reflector, hand-brake, back-pedal, bell) presented by the song (p66). Most of the children were happy to dance the polka including different gestures. Furthermore, the physical activity during the bike dance served as an element of detention, which was important since the next part of the programme was quite demanding.

Concerning the next part of the programme, the rules of interaction using the coloured balls helped to create an ambiance of concentration. However, a few children did not understand the game and threw their balls into the bowl without having any idea about possible answers. Nevertheless, the project leader managed that each of the questions was discussed in detail. The competence to perform an emergency phone-call varied considerably between the individual children. Nearly all of them were able to answer the questions “who is speaking” (name of the child) and “what has happened?” (usually they reported a bike accident as demonstrated before by Pelle). In contrast, most of them forgot to report the location of the accident (road and house number). However, if the group leader asked them to report the location of the accident, most of the children were able to mention the street and the house number (usually the address of their home).

2.1.3 Day 3: How to bandage cuts and grazes

The cut

Initially, the group leader asked the children, whether they remember an injury which occurred when using a knife or a pair of scissors. How did it happen? How did it look like? What did you (or your parents) do?

After several children had told their experiences, an experiment was performed: using a knife, the group leader scratched a tomato. The tomato was passed on to the children, who were motivated to watch and to touch the scratch. They were asked to describe what they saw. Expected answers:

- the skin of the tomato is damaged
- the juice runs out

The aspect of a cut was discussed. It was mentioned that a cut may bleed, which “is a good thing”, because it helps the body to clean the wound. However, if it’s bleeding heavily, the cut should be bandaged.

The children were asked: How to bandage a cut? Using a plaster. A plaster was demonstrated. It was explained, that one should not touch the area of the plaster, which is put over the wound. One child was asked to bandage the cut using a plaster that had a pad large enough to cover the wound (fig.25, p69).

The graze

The children were asked, whether they ever had an accident using a tricycle, a scooter or a bike. How did the injury look like? What did you (or your parents) do?

After several children had told their experiences, an experiment was performed: using a knife, the group leader took off a part of the skin of a peach. The resulting superficial lesion was characterized by irregular edges. Thus the damaged peach could be used to illustrate a graze. The peach was passed on to the children, who were motivated to watch and to touch the damage. They were asked to describe what they saw. Expected answers:

- the skin of the of the peach shows a superficial wound with irregular edges
- the wound may be large
- there might run out some juice

The aspect of a graze was discussed. It was mentioned, that a dirty graze has to be washed with water using a gauze pad.

The children were asked: How to bandage a big graze? Using a piece of gauze and a bandage roll. It was explained that the piece of gauze should be placed over the wound in order to absorb the secretions (fig.26, p69). A bandage should be used to fix the gauze. One child was asked to bandage the peach using a piece of gauze and a bandage to fix it.

Practical part: Bandaging

A first-aid-kit containing plasters, pieces of gauze and bandage rolls was standing in the middle of the circle. Before starting the bandaging-activity, the children were instructed, that they should wash their hands before bandaging. Then the children were divided into teams of two children. One child out of each team was sent to the bathroom in order to wash his / her hands. During this time, the other children received special make-up pencils in order to draw a small cut on one hand (arm) and a large graze on the other hand (arm) (fig.27, p69). When their partners returned from the bath room, they first had to decide how to bandage the lesions (plaster over the small cut, gauze and bandage over the large graze). Then they bandaged their partners using plasters and bandages (fig.28 and 29, p69). Afterwards the roles were changed and the whole procedure was repeated vice-versa.

The session was finished by providing first-aid-materials (plasters, pieces of gauze, bandages) to the children who stored the materials in their first-aid-kits.

Some of the plasters were stuck to the right lower quadrant of the first-aid-posters. The first-aid-kit which was used during the session was taken to the group-room. Thus the children could use the material during the following days and weeks.

How it worked:

Many children were keen on reporting injuries which they had experienced by themselves or which had happened to their parents or siblings. They observed the experiments (tomato: cut, peach: graze) with great interest. They closely watched how the wounds were bandaged and they were very much involved into the bandaging activities. Nearly all of them decided correctly to dress the small cut with a plaster and to bandage the large graze with a piece of gauze and a bandage roll. Most of the children were able to bandage the wounds of their partners correctly. However, several children had problems to handle the bandage rolls and needed some help. Many of them wanted to keep their bandages in place during the rest of the day in order to present them to their parents. They were happy to receive some first-aid-materials (plasters, pieces of gauze, bandages) to be stored in their first-aid-kits.

2.1.4 Day 4: Being aware of dangers of burns

The children were sitting in a circle. They were asked whether they ever had a burn. Further questions were: How did the burn look like? What did you (or your parents) do?

Afterwards the group leader performed an experiment using a tomato: the tomato was put above a candlelight (fig.30, p70). At the point of time, when the skin started to get blisters, the tomato was shown to the children. They were asked to watch and to describe the heat-induced injury. Expected answer:

- the skin of the burned area becomes orange and gets blisters

It was explained, that the human skin reacts in the same way (the skin becomes reddish or shows white blisters) which is associated with pains.

The children were asked, how burns should be treated. As an appropriate measure of first aid, the burn should be doused using cold tap water for a prolonged period of time (“as long as you can”). Then the children were asked to continue the experiment by dousing the tomato with cold water for several minutes (fig.31, p70).

For the second part of the session, each child received two cards of white paper and several coloured pens. The project leader used Pelle to ask the children which dangers of burns they could imagine. They were asked to close their eyes for one minute while thinking. Afterwards Pelle motivated the children to draw at least two of their ideas on the paper-cards they had received (fig.32 and 34, p70).

When the children had finished their pictures, Pelle came to see the cards and asked the children, what they have been drawing. Each idea was discussed and reported by the educators.

In addition, it was discussed, how one can protect oneself (keeping an appropriate distance to open fires, using pot holders when handling hot pans, waiting until hot pots cool down).

At the end of the session, one of the two cards of each child was pasted on the left lower quadrant of the first-aid-poster (fig.33, p70). In addition, a picture symbolizing a hand below a running water tap was pasted in the middle of the quadrant.

Before leaving, the children received a “housework”. They were asked to check their homes together with their parents for potential dangers of burns.

How it worked:

Many children remembered experiences of burns. Inside the house most of the injuries had happened in the kitchen (due to the contact with hotplates, with the oven or with hot pans or pots). Outside the house many burns were induced by a barbecue or by the tools used to grill something. Further frequently mentioned dangers were: a hot iron, hot tap water, burning candles and lighters. In addition, the children reported injuries due to inattentive behaviours of adults such as burns due to hot cigarettes or to “enjoyments” like passing ones fingers through candlelights. When asked about the reactions after being burned, only a few children reported that the burn was doused with cold tap water.

The experiment with the burned tomato was observed with great interest. The children enjoyed the activity of dousing the tomato extensively.

The results of the second part of the programme differed markedly between the individual children. All of them managed to draw at least one picture. Having observed a candlelight and a lighter during the experiment, many children chose these examples or simply drew an open fire. Less than half of the children were able to imagine two different dangers of burns, which had not been demonstrated by the experiment.

2.1.5 Day 5: How to avoid insect stings

This day, the programme was started by discussing the results of the “homework”. Additional dangers of burns such as coffee-machines, light bulbs, and radiators were discussed.

Depending on the weather, the next part of the session took place outside the house. Different food items were presented on a tray, which was put in the middle of the circle. There were sweet food (e.g. honey, jam, fruit juice) and spicy food (cucumber, sausage, cheese, bread). The children were asked to describe the taste of the food items (sweet or salty).

Then Pelle entered the circle and told them, that he is going to have his breakfast. Unfortunately, several wasps (little plastic dummies, handled by the project leader and the educators) started to fly around the sweet food. Pelle got very upset and panicked. He wanted to chase them away. Thus the wasps became aggressive, and one of them stung Pelle (fig.35,

p71). He was crying because the sting was quite painful. The children were asked to imagine, how they could help. Usually they had the idea to use a cool-pack, but they were informed, that no cool-pack was available. Searching for other ideas, a bucket containing ice-cubes was presented. One child was asked to put some ice-cubes into a plastic bag (fig.36, p71) and to cover the bag using a towel. Then the self-made cool-pack was put over the sting (fig.37, p71).

Afterwards it was asked, how Pelle could avoid the risk of a sting when eating outside. It was explained that hitting the wasps is dangerous because it renders them aggressive. Instead, it's better to keep a certain distance and to cover the food stuff (especially the sweet food and drinks).

After passing on the wasp-dummies to the children, the whole scene was repeated (fig.39, p71). The wasps flew around the tray when Pelle arrived. This time he didn't panic. He took a bucket and put it over the tray. After a while, the wasps were flying away. Pelle checked his slice of bread in order to be sure that no wasps were sitting there. Finally he started to eat. Then the wasps were passed on to other children and the situation was repeated.

At the end of the session, several sweet objects presented as little pictures were demonstrated. It was discussed, that one should be cautious when eating outside during summer time. Before eating, one should always check whether wasps or bees are sitting on the food. At the end of the session, the sweet objects were pasted on the lower part of the first-aid-poster. Each child was asked to paste a wasp on one of food items (fig.38, p71).

When the first-aid-poster was completed (fig.40, p72), the project leader summarized the issues of the previous sessions. Then the children were asked, which element of the course they enjoyed the most. The answers were noted by the educators.

The course week was terminated by a quiz. The children were asked about preventive aspects and essential measures of first aid. Each correct answer was rewarded by a first-aid-button representing Pelle on one side and a "first-aid-cross" on the other side (fig. 42, p72). When the quiz was finished, a party including a barbecue was thrown.

How it worked:

In general, only a minority of children reported the results of their "homework". Nevertheless their reports could be used to discuss additional dangers for burns.

The activity of the "wasp-attack" was enjoyed by most of the children. The handling of the wasp-dummies flying around the sweet food was performed with great engagement. To avoid insect stings, nearly all groups suggested to eat inside the house or to cover the food.

When the children were asked about their preferences regarding to the different elements of the course, most of them clearly stated one or two favourite subjects. We were astonished that the demanding activities such as telephoning for help or developing ideas about dangers for burns were appreciated nearly as much as the bandaging activity (see section 8).

Having performed the quiz, the children were proud to receive their buttons. The barbecue activity served as an additional means to promote the awareness of dangers of burns. The sausages were eaten with great pleasure. At the end of the day, the children were allowed to take their first-aid-kits to their homes (fig.41, p72).

3 Social diagnosis

The first phase of the development of a health promotion project has to ensure that the objectives of health promotion match the specific needs of the people. Thus, an appropriate needs assessment has to be performed. In the case of the first-aid-project, the first step included a review of the general problems encountered by migrant families. Furthermore the literature was checked regarding the general risk of migrant children to have accidents. The second step evaluated the specific conditions of the families living in the catchment areas of the child day care centres. In addition, the frequency, the types and the causes of accidents occurring in the respective centres were evaluated. The third step consisted of an assessment of the “wants” of the parents and the managers of the child day care centres. They were asked about their opinions and their expectations concerning the implementation of a first-aid-project.

3.1 General problems encountered by migrant families

Because immigrants come to Germany for different reasons, they have different problems. Some problems occurring at the macro-, meso-, and micro-levels are common to many immigrants. At the macro-level, poverty, discrimination, language barriers, immigration laws, legal and illegal status characterize many of their experiences. At the meso-level, families often struggle with role reversal, husband-wife tensions, grandparent relations, and questions of abandonment and loyalty [12].

At the micro-level, the parents’ status and problems frequently affect the health status and the well-being of the immigrant children. Difficulties of the parents in securing a job that provides adequate income and obtaining affordable housing causes financial problems, lack of sufficient living space and inappropriate housing-environments (see section 3.3 and 4.1). Furthermore, the financial and social stress of the parents may lead to low self-esteem, and family disharmony, culminating in possible domestic violence and the need for social services [12].

3.2 The risk of accidents of migrant children is increased

Several investigations showed, that the risk of severe accidents is higher in children with low socioeconomic status and in children with migratory background [5, 6, 8]. As demonstrated by a recent German study, the risk of migrant children to have severe accidents is 56% higher compared to German children [8]. In young children, the majority of the accidents happen at home and are predominantly due to falls [6]. In older children, burns and traffic accidents play a major role [6]. In this respect, a social gradient was found: Socio-economically disadvantaged children are at higher risk to have burns or traffic accidents [6].

3.3 The social situation of the families living in the individual catchment areas of the five municipal day care centres of Hamburg Horn

Health promotion in child day care centres has to find links to the individual catchment areas in order to reach specific target groups. Based on qualitative interviews, the managers of the five municipal day care centres were asked to describe the social situation of the children attending the institutions:

The catchment areas of four out of the five centres showed comparable social conditions: the housing-situation of the families was characterized by a predominance of rented flats and a substantial proportion of social housing. Privately owned homes were absent or very few. The area around three of these day centres was described as an area of particular social concern. All four child day care centres estimated the percentage of migrant children to be above 50% and two of them reported a percentage between 70 to 80%. Two of the four day centres numbered the percentage of parents who were unemployed or who were dependent on social welfare with 5 to 20%, whereas the other two estimated it to be 30 to 50%. The percentage of single parents (nearly exclusively single mothers) was between 15 and 30%. Three of the four child day care centres were in charge of several children (up to 12% out of all children of the elementary section) for whom the municipal authorities had recommended or required educational assistance by one of the local day care centres.

One out of the five child day care centres was described differently: its neighbourhood did not correspond to an area of social concern, but was predominantly determined by cooperative flats and by a few privately owned houses. The social situation of the families living in the neighbourhood was not described as disadvantaged. The percentage of migrant children was estimated not to exceed 10%. The percentage of parents who were unemployed or who were dependent on social welfare was below 5%. However, compared to the other centres, the percentage of single parents (nearly exclusively single mothers) was higher (50 to 60%). This child day care centre had no children to care for because of juridical recommendations or obligations.

Concerning the different origins of migrant children, all centres reported a preponderance of Turkish children. However, four centres reported slightly less or the same range of percentages to be reached by children originating from Westafrican countries (Ghana, Togo, Nigeria, Guinea). In one centre, the second frequent origin was represented by children from countries belonging to the Commonwealth of Independent States (CIS).

Among the other cultural backgrounds represented by up to 30 different nationalities, a substantial proportion of children were originating from countries belonging to former Yugoslavia (Croatia, Bosnia, Serbia), Albania, Afghanistan, Egypt, Iran, Greece, Poland, the Baltic States (Latvia, Lithuania, Estonia), Portugal, India and Vietnam.

3.4 Frequency, types and causes of accidents occurring at the municipal child day care centres

Accidents of low severity were mainly represented by bruises, which did not require any specialized treatment by medical professionals or institutions. If necessary (mainly because of bleeding), these wounds were treated by the staff of the day care centre (usually by sticking on a plaster). Referring to four day care centres which cared for a total number of 109 to 170 children, the incidence of these injuries was estimated to reach 30 to 80 cases during the last 12 months. The largest day care centre (235 children) reported an incidence of 100 to 150 injuries per year.

The number of accidents which required to be treated by medical professionals was low. Each of the five centres estimated numbers varying between 0 and 15 cases per year. The number of emergencies characterized by the need for an emergency car varied between 0 and 5.

The location of accidents had no predominant site. Four out of five centres reported, that the accidents happen inside and outside the centre with equal probabilities. Only one centre noted a higher frequency of outdoor accidents.

As described above, the most frequent type of injuries were bruises due to falls. Other frequent causes of injuries were crushings (usually because fingers were put between frame and door) and cuttings (mainly due to the inappropriate use of scissors and knives). Typical conditions leading to falls with bruises were romping, running, pushing, and quarrelling. Additionally, falls occurred while riding bikes or tricycles. On the other hand, many falls were not due to characteristic activities but to inattentiveness. This was mainly attributed to reduced capacities of coordination, which might be due to general disturbances of space-perception or to transiently reduced physical conditions (e.g. in case of fever or viral infections). Especially in girls, the wear of inappropriate shoes represented a further cause of falls.

The question whether accidents occur more frequent in boys than in girls yielded different answers. Three child day care centres estimated no gender differences, whereas two estimated a preponderance of boys.

Concerning the social behaviour of boys and girls, all child day care centres denied that boys behave differently compared to girls in case of being confronted with an injured child. In addition, there were no general differences of social behaviour, which could be attributed to different cultural origins.

3.5 What are the “wants”?

Two weeks before the course started, the parents received a leaflet (fig.1, p72) and an information letter (fig.4, p55) which informed them about the planned project of a first-aid-course. The leaflet was written in German (fig.1, p72), English (fig.2, p53), and Turkish (fig.3, p54)

and distributed according to the language preferably spoken by the parents (excluding other, more rarely spoken languages, into which the letters were not translated). It informed the parents about the objectives and the content of the first-aid-course. Two child day care centres additionally informed the parents about the programme during one of their regular parents' information evenings.

Together with the leaflet, the parents received a questionnaire (fig.8. p59). The questionnaires were also written in German (fig.8. p59), English (fig.9, p60), and Turkish (fig.10, p61). Based on these questionnaires it was investigated whether the parents believe that their children are informed about some precautionary measures of first aid. To get a general impression on the acceptance of the planned project, the parents were asked whether they agree to the introduction of a first-aid-course into the preschool education programme.

The return rate of the questionnaires was 70.7% (65 out of 92 children under evaluation). Interestingly, the return rate of migrant families (70.7%) was as high as the return rate of German families (70.6%), which is much better compared to the return rates demonstrated by other studies focusing on migrants [8]. Due to the high return rate, the risk to receive distorted results because of a selection bias was low.

In addition, the managers of the child day care centres were interviewed by qualitative interviews (fig.5-7, p56-58). They were asked about their expectations concerning the introduction of a first-aid-project into the preschool education programme.

3.5.1 What do the parents want?

Concerning precautionary measures, the majority of the parents indicated, that they store some materials of first aid. Most of them supposed that their children would know, where to find dressing-materials in their household. Only 7 out of 65 parents stated, that their children do not know, where to find plasters in the household. Six out of 65 parents answered, that they do not store cool-packs or ice-cubes in their fridge. The majority of the parents (56 out of 65) stated, that non-severe injuries are usually bandaged by the parents. In contrast, nine parents indicated, that the children are used to bandage small wounds by themselves or together with the parents. All parents who returned the questionnaires agreed to the introduction of the first-aid-project into the preschool education programme.

Being asked for their wishes concerning the first-aid-project, twenty parents formulated concrete expectations, which can be summarized by two main aspects: One aspect referred to the general objective, that the children should be enabled to help themselves and others in case of an injury ("the children should learn to act in the right way"; "the children should learn how to bandage small injuries"). Several parents stated, that the children should be instructed about ways to call for help in case of an accident / emergency. In addition, the first-aid-course should aim to reduce fears related to the confrontation with injuries. The second aspect focused on the evaluation of the content of the course. Many of the parents stated, that they generally appreciate the programme of a first-aid-course ("everything offered by

the first-aid-programme is important”; “it’s important that the children are instructed about this subject”).

3.5.2 What do the managers want?

All child day care centre managers agreed to the idea to introduce a course of first aid into the preschool education programme. One of the leading arguments was, that one should start as early as possible to make children aware of emergency situations. Instead of panicking, children should learn how to help each other in such situations. Therefore they should be taught how to perform some basic measures of first aid.

As particularly important it was mentioned, that the content of the course should include elements, which demonstrate how one could find a third person to help and how to perform an emergency phone-call. Furthermore, the children should be trained to overtake responsibility and to behave respectfully when caring for an injured child. It was considered to be important, that the children get to know several rules (e.g. washing hands before bandaging) and some basic procedures of first aid (e.g. using a plaster to bandage an open wound).

4 Epidemiological diagnosis

The need to improve the situation of migrant families was based on epidemiological data. Firstly, epidemiological data demonstrating the generally disadvantaged social situation of migrants were presented. Secondly, the impact of the social disadvantages on the health status was evaluated by reviewing the results of several studies. Thirdly, epidemiological foundations regarding the types and the causes of childhood accidents occurring in Germany were summarized.

4.1 General problems due to the disadvantaged social situation of migrant families living in Germany

In the end of the year 2003, there were 7.3 millions of foreign-born persons living in Germany. This represented nearly 9% of the German population [13]. Children of families with migratory background living in Germany, children of single-parents and children with more than two siblings had a markedly increased risk of poverty (defined as a household-income laying below 60% of the median of the German household-netto-income). The risk of poverty of migrants has increased from 19.6% in 1998 to 24% in 2003 and was especially high in migrants originating from Turkey and the former Yugoslavia [13].

Risk of poverty of the population with and without migratory background from 1998 to 2003 in %

Year	Total population of Germany	Population without migrants (western part)	Population without migrants (eastern part)	Migrants living in Germany
1998	12.9	11.0	13.2	19.6
1999	12.4	10.8	12.7	18.3
2000	12.4	10.5	14.3	17.7
2001	13.8	11.0	15.3	22.6
2002	15.4	11.9	18.4	25.1
2003	15.4	12.4	18.0	24.0

Source: 2. Armuts-u. Reichtumsbericht der Bundesregierung / SOEP 1998-2003

The main factor determining the increased risk of poverty was the fact of being unemployed [13]. The unemployment figures of citizens of foreign origin in 2004 reached 20.4%, which was twice as high as the unemployment figures of the general population (2004: 11.7%). For the same reason, the risk of children of migrant families to depend on

social welfare was twice as high compared to the risk of German children of the same age (13.9% versus 5.9%) [13].

Due to the unfavourable living conditions of migrant families (shortage of living space, joblessness due to low-level professional qualification and to insufficient knowledge of the German language), their children have an adverse starting position compared to German children. Consequently the level of education of migrants remains low also in the 2nd generation. In 2003 72.5% of the unemployed migrants did not complete any professional training. The corresponding percentage in Germans was 28.9% [13].

In order to improve the integration of children with migratory background, the federal government decided to increase the number of child day care centres and whole-day-schools. This was planned to be realized between the years 2005 to 2010. Recently the implementation of education programmes for child day care centres have been prepared by several German federal states.

4.2 Impact of the social disadvantages on the health status and the health risks of children with migratory background

Multiple studies [14, 15, 16] demonstrated that poverty markedly influences the state of health and well-being in children: during early infancy, the particular risks of a disadvantaged social position and migration status manifest themselves in increased infant mortality and lower birth weight. The higher infant mortality rate for non-German families (650 deaths in every 10,000 compared to 510 for German infants) is associated with the insufficient use of antenatal services.

Overall, there is a noticeable lack of nationwide data on the influence of social living conditions and migration status on children's health and development in preschool age compared to other European countries. However, several studies demonstrated that the indicators of delayed development depend on social position [17, 18]. As demonstrated by a study performed in a district of Cologne, the higher the proportion of recipients of social welfare, the more frequently adiposities, basic motor coordination disorders, impairments to fine and visual motor skills and speech and behavioural disorders were diagnosed in the school enrolment examinations [17].

The diagnosis of these developmental disorders is often delayed or missed. This was attributed to the poor use of preventive healthcare measures for children by families in the lower levels of society or with a migration background [1, 17].

4.3 Frequency, types and causes of childhood accidents reported in Germany

Generally, accidents represent the most frequent cause of illness and death in children (about one third of all causes of death) [1]. In children up to 5 years, most of the fatal injuries are due to accidents which happen at home. In older children, the impact of traffic accidents dominates. In addition, it has to be taken into account, that for every fatally injured child approximately two children are so seriously injured that life-long disability remains.

Causes of death						
Deaths through accidents according to category, age group and gender						
Number						
Age groups	Total	According to accident category				
		Work/school	Traffic	Home	Sport/game	Misc.
0-1	86	-	17	34	-	35
1-5	326	-	92	100	38	96
5-15	534	7	310	52	61	104
15-25	2,869	75	2,492	56	57	189
25-35	2,805	149	2,141	128	68	319
35-45	2,222	219	1,239	267	59	438
45-55	2,114	226	975	365	41	507
55-65	2,292	148	900	520	32	692
65-75	2,473	39	819	783	22	810
75-85	4,163	3	651	1,866	6	1,637
85 and over	5,238	3	260	2,683	5	2,287
Total	25,122	869	9,896	6,854	389	7,114

Source: Federal Statistical Office 1994

If the various types of accidents are examined, the danger of falling appears as the central theme throughout childhood. Falls represent more than 50% of all types of accidents in children up to 11 years. In toddlers, severe injuries and deaths are mainly due to falls downstairs and to falls from buildings (from windows and balconies). At school age, falls occur predominantly at the playground or are due to leisure activities such as riding a bike or roller blading [19]. The dangers of poisoning and burns are particularly high in the first five years of age.

Age and type of accident							
	Accidents according to age group (%)						
Type of accident	0	1-2	3-5	6-8	9-11	12-14	15-16
Poisoning	3.1	6.0	1.2	0.0	0.0	0.0	0.0
Falls	66.0	50.3	55.1	52.9	51.3	49.6	42.3
Burns, scalds	15.0	7.0	3.4	1.7	0.9	1.5	0.1
(Almost) drowning	0.0	0.4	0.7	0.1	0.2	0.2	0.0
Effects of objects	2.5	10.8	14.3	17.7	16.6	16.6	21.4
Effects of people/animals	6.6	7.0	6.5	5.7	8.1	9.2	10.0
Collision	5.6	11.1	12.7	14.9	12.9	12.8	10.3
Other	1.3	7.3	6.1	7.0	10.0	10.2	15.9
Total (%)	100	100	100	100	100	100	100
Total (abs.)	3,59	20,59	24,65	23,7	21,66	19,51	5,98

Source: Dr. Hubacher, Beratungsstelle für Unfallverhütung (BFU), 1994

If the conditions of accidents happening at home and during leisure time are examined, approximately half of them were found to happen while playing and romping (47.6%) [1]. Most of the accidents at home and during leisure time are due to unfavourable physical and psychological factors (41.4%) and to inappropriate behaviour (37.2%) [1].

Causes (multiple denominations)	Percentages
Physical / psychological factors (carelessness, boisterousness, overeagerness, inattentiveness)	41.4%
Inappropriate behaviour (stumbling, slipping, being in a hurry, being in an unusual situation)	37.2%
Faults or inattentiveness from other persons	18.7%
Environmental factors (soil, wetness of the subsoil, distraction due to external factors)	16.8%

Source: Schwerpunktbericht der GesundheitBerichterstattung des Bundes, Gesundheit von Kindern und Jugendlichen, Robert Koch Institut, Stat. Bundesamt, 2004.

Regarding the resulting injuries, most of them are open wounds (35.5%), fractures (15.6%) and contusions (11.7%). The injuries mainly concern the lower and the upper limbs (31.3% and 23.0% respectively) and the head (32.5%) [1].

In children over 1 year, the mortality due to accidents is higher in boys compared to girls, which is attributed to boyhood agility. As reported by the “Gesetzliche Unfallversicherung” (German statutory accident insurance, covers all accidents occurring in child day care centres), accidents in boys occurred more frequently (approximately 60%) than in girls. However, recent investigations have shown that the gender difference only is true for serious injuries. Due to the fact that more severe injuries usually have to be treated medically, they are more likely to be reported to the accident insurance. The overall number of injuries (non-severe and severe) appears to be divided equally among girls and boys [20].

5 Behavioural and environmental diagnosis

To design a health-related programme for migrants, one needs to know the factors influencing their health-behaviour. Regarding the programme of first aid, this included the evaluation of migrant-specific problems but also the appraisal of their capacities of problem-solving. In addition, the environmental factors determining their living-conditions had to be considered.

The first-aid-programme presented here, was especially designed to be used in preschool children. Therefore, the factors influencing the social behaviour in children had to be considered.

5.1 General aspects influencing the health-behaviour of migrant families

Children from families with a background of migration belong to a “difficult to reach group”. The fact that their parents are often unable to use preventive health services and services concerning children’s health (see section 4.2) might be due to several reasons:

- Language barriers (frequently cause communication problems, which might lead to a lack of information)
- Psychological problems resulting from difficult life-experiences during the migration-process (which might reduce the capacity to interact with social or medical institutions)
- Aspects associated with minority status and low social status (shortage of living space, low income and limited educational opportunities, see section 4.1)
- Specific cultural orientations (which might represent barriers)
- Culture-specific concepts of health and disease (migrants might have expectations on health-related measures which differ markedly from the measures based on Western concepts of natural science, see section 6.1)
- Health care measures might be experienced as a measure of social control by public institutions. This has to be considered especially in the case of migrant families originating from countries which are governed by totalitarian regimes (e.g. China, countries belonging to the former Eastern bloc). Having experienced such political conditions, parents might not get in contact with medical institutions, because they fear that the child will be taken away from them.

On the other hand, migrants should not be considered as a group of generally weak and helpless citizens. Due to the fact that they had to manage difficult life-experiences, many of them developed effective coping-strategies. Family-structures and ethnical communities may represent important additional resources which positively influence their health-status and which support their resilience [21].

5.2 Environmental factors influencing the health behaviour of migrant families

Due to limited financial resources, the situation of migrant families is often characterized by inappropriate housing-conditions and housing-environments. The fact, that migrant children have an increased risk of traffic accidents might be at least partially explained by the association of low socio-economic status and increased traffic density (see section 1.1).

Since their educational level often is low also in the 2nd generation, the professional perspectives of young people with migratory background are limited. Thus, their integration is hampered and their social status remains low (see section 4.1).

These environmental factors influencing the health-status of migrants can't be directly improved by the project of a first-aid-course. However, the project might help to make people aware of certain aspects of their situation (e.g. traffic-related dangers). This may motivate people to become politically active (e.g. by participating in public discussions / manifestations, by voting for people representing their interests) in order to improve their social situation. As a practical example, an improvement might be achieved by intensifying network-activities between community institutions and organizations which focus on migrant-specific interests. On the long run, this might influence political dependent decisions such as efforts to improve the integration of migrant families by special programmes adapted to their needs.

As an example, the first-aid-programme represented here could be integrated into a comprehensive preschool education programme driven by the federal states.

5.3 Determinants influencing the development of prosocial behaviour

Prosocial behaviour depends on a number of characteristics of the helping context. One of these is the ability to help. Children whose level of competence was enhanced by training in required helping skills and who were assigned specific responsibility for helping responded by helping more [22]. Related to competence is having an understanding of the need of help by others. In four year olds it was shown, that they were more inclined to help in problem situations, when both the distress level of the recipient and the cause of distress were made explicit [23]. Thus, young children need unambiguous cues that the situation requires intervention and that they have the ability to intervene to the cause of the distress. Children are also more likely to help those who they like and those who are younger and therefore more dependent [24]. Another determinant of helping is the actor's temporary mood state. Being in a good mood seems to foster prosocial responding in children of all ages [25].

Investigations of sex differences in prosocial action found modest differences favouring girls. However, these differences appeared to depend on the type of prosocial behaviour studied, the methodology employed, and the target of behaviour. For example, girls were

more likely to be kind or considerate, but not more inclined to share, comfort, or help [26].

The influence of social class differences on prosocial behaviour have provided mixed findings. Some studies found that children with lower socio-economic backgrounds are more prosocial than those from higher socio-economic backgrounds. Others find they are less prosocial, and yet others that there are no differences [27].

The influence of cultural differences in prosocial behaviour was demonstrated by observations of children living in different countries [28]. The factor that most strongly accounted for these differences was assignment of chores to children, particularly the care of infants [28].

6 Educational and organizational diagnosis

In order to modify the health-behaviour of people successfully, one has to take into account the underlying beliefs and attitudes. Therefore the role of different concepts of health according to different social and cultural backgrounds had to be discussed. The development of a programme that is suitable for children with different cultural backgrounds required a review of the international literature regarding modern preschool education programmes. General aspects of modern concepts of learning had to be considered. Concepts of strengthening the resilience of children by promoting their conviction of self-efficacy were integrated. In order to promote the involvement of migrant children into the activities of the programme, tools of intercultural work had to be studied.

6.1 Beliefs and attitudes according to the social and cultural background

For preschoolers parents are important role models for managing symptoms and disturbances to the state of health. Important determinants are represented by the following questions: Do the parents themselves show positive or negative feelings and symptoms such as pain or do they exert complete emotional control? How sensitive are they in perceiving the feelings or symptoms of their children? How do they react if their children express their feelings? The answers to these questions largely depend on the concept of health and disease which is valid within the family and which is influenced by the social and cultural background.

Concerning the social background, a health concept which was described for members of the lower social classes (in particular for men) defines health through the functioning of the body. Illness is something negative and is only comprehended when nothing works any more [29]. Another health concept, more specific to the middle class associates health with a condition of feeling well. In contrast to the first concept, this concept implies, that health is something of value and not merely a condition of efficiency. Furthermore it includes aspects of prevention such as healthy nutrition and physical exercise [29].

Concerning the cultural background, concepts of health and disease transmitted by parents of foreign origin may vary greatly from Western concepts. As an example, the concept of traditional African medicine reaches largely beyond the perception of organic breakdown. It presumes various other sources of ill-health like ancestral disharmony, evil spirits or prenatal wishes. As a consequence, the African approach of healing does not exclusively concentrate on the repair of physical functions but aims to achieve the recovery of the diseased person as a spiritual and social being. The healing rituals are supported by the community which enable the person to return to a healthy soul, mind and body [30].

Concerning the capability to manage stressful situations (e.g. accidents, emotional or social conflicts) different sociocultural groups appear to generate beliefs concerning the most appropriate means of both emotion- and problem-focused coping. Interestingly, bicultural individuals may develop two separate coping repertoires, depending upon the cultural con-

text. In one study it was shown, that Aboriginal adolescents use different strategies in coping with conflicts arising from demands made by parents and / or the traditional culture and those made by Western-style teachers [31].

Based on the knowledge of the problems and resources of migrant families, it can be stated that health promotion in children with different cultural origins has to pick up parents' ideas in order to strengthen parents' and children's health skills.

6.2 Concepts of preschool education in respect to health-related programmes.

Modern education programmes should be based on the concept of learning as a social process, in which children and educators, but also parents and other adults, are involved. Children should be promoted to develop a concept of their own identity. They should learn to reflect the consequences of their behaviour for themselves, but also for others. In respect to multicultural societies, this includes the development of intercultural competences early in life.

6.2.1 Learning as a social process to favour the cognitive development

Developmental psychologists extensively discussed the importance of social interactions for the development of the cognitive development of children. Thus, learning and thinking is no more interpreted as an isolated, individual process, but as a process of social interaction ("social constructivism").

This corresponds to modern theories of cognitive psychology, that concentrate on analysing processes of understanding [32]. The theory, that children have to reach specific steps of maturity before they are able to achieve certain levels of development has been replaced by the concept of "scaffolding". This concept is based on the idea, that children actively promote their cognitive development if they are appropriately supported by adults [32]. This implies that adults adapt the level of support in a way, that children are enabled to fulfil tasks which slightly exceed their capacities. "Scaffolding" has been shown to be the most important way of interaction leading to understand one's own cognitions ("to learn how to learn"). Thus, methodological concepts were developed, which intend to favour the development of "metacognitions" by specifically organized social interactions.

In order to focus on the development of metacognitions, preschool projects have to include phases of reflection. During these phases of reflection the children reflect not only the content of the project, but also the way, they think about it ("what they have learned and how they have learned it"). As an example, the children can be asked to perform an experiment and discuss its results. Subsequently they should be motivated to reflect, why they have performed the experiment and how they think about it.

The current project included several little experiments demonstrating the induction of cuts , grazes, and burns (see section 2.1).

Following the performance of the experiments, the children were asked to think about the underlying mechanisms and about other possible causes of the results.

6.2.2 Supporting the development of identity and self-efficacy

As shown by several developmental psychologists, the understanding of oneself and others is developed during early childhood mainly by playing. This process was described as social cognition [33]. By playing with substitutes of actors such as puppets, these objects obtain the characteristics and the intentions of one own as well as the ones of other persons. According a longitudinal study different levels of social cognition were defined [34]. At the more advanced levels, emotions, defined social relations, and cognitions such as thinking, planning and knowing are attributed to the puppet. Thus the development of social cognition by playing leads to an advanced understanding of social roles and relations. The child constructs an understanding of identity, which is not only dependent on itself but also defined by the influence of others. Regarding the present project, a big hand-puppet was used to promote the development of social responsibility.

Self-efficacy involves a subjective conviction of an individual's ability to cause and change things. It also includes the perception of having personal control over any situation, feeling capable and being able to influence the social environment through one's own actions. For example by coping with tasks, children provoke an effect and attribute this to themselves. They associate the result of action with their own efforts and their own ability which results in the initial understanding of personal abilities. Convictions of self-efficacy are the foundation of the concept of self. If someone believes that the results of his / her action are under control, he / she will be able to have much pride in what he / she has achieved. This also results in a strongly motivating effect: situations which appear capable of being controlled are searched for again. This implies a self-maintaining cycle.

Measures to strengthen children's self-efficacy ("empowerment") can be usually explained by social learning theory. Inherent in the social learning conception is the idea that people self-regulate their environments and actions. Although people are acted upon by their environments, they also help to create their surroundings. Reciprocal determinism and its associated concepts of self-management and self-control make social learning theory ideally suited to the development of an educational approach to health promotion [9]. According to the social learning theory, learning takes places though three processes:

1. direct experience
2. indirect experience from observing others (modelling)
3. the storing and processing of complex information in cognitive operations that enable

one to anticipate the consequences of actions, represent goals in thought, and weigh evidence from various sources to assess one's own capabilities.

Out of the third process comes a situation-specific self-appraisal that makes the individual more or less confident in taking on new behaviour in situations, that may contain new, unpredictable, or stressful circumstances. In addition to its influence on behaviour, self-efficacy affects thought patterns and emotional reactions that may alleviate anxiety and enhance coping ability [9].

In respect to the present project, the concept of social learning theory were applied to train appropriate behaviours in respect to stressful situations. The hand-puppet "Pelle" served as a model, which was used to demonstrate the situation of telephoning for help because of an emergency. Subsequently, the children had to manage similar situations which were somehow modified by their own ideas, but also by the reactions of others (e.g. by their phone-partner of the rescue service).

6.2.3 Integrating aspects of different cultures to promote the development of intercultural competences

Cultural differences should not be ignored. In contrast, their impact on the process of social learning has to be reflected. Thus, the integration of aspects of different cultural traditions into education programmes may help to enrich them and renders them suitable for children of different origins. As a successful example the curriculum "Te Wāriki" (developed in New Zealand) can be mentioned [35]. The main objectives of the curriculum were developed by integrating the cultural traditions of the indigenous population (Maori) and the ones of the Anglo-European population. The four main principles of this curriculum were to empower children to learn, to provide an integrative approach for learning, to integrate families and communities and to provide opportunities for relations with people, places and objects.

To provide an integrative approach, the first-aid-programme was not exclusively based on language-dependent elements. Instead, many symbolic and non-verbal means were used (see section 2.1). To integrate the parents, they were thoroughly informed about the content of the project (see leaflet, fig.1, p52). In addition they were involved in one of the course-elements including a "homework" (see section 2.1.4).

7 Administrative and political diagnosis

To realize the programme of first aid, the requirements of time, staff and money had to be determined. Therefore, administrative elements, including a schedule, had to be fixed.

To improve the situation of migrant children in a more general way, the first-aid-programme presented here could serve as a model-project for further projects. This implies the political will to promote multicultural programmes of preschool education. Therefore the political scene had to be analysed in respect to current efforts to improve the situation of migrant families.

7.1 Requirements to realize the first-aid-project

The total project was to be one year, taking into account the conceptual and preparatory work. Three months (from January to March 2005) were scheduled to develop a first concept of the programme design. The pilot project was to be carried in April 2005. Afterwards a time-span of three months (from May to July 2005) was scheduled to prepare the tools for evaluation (questionnaires for parents, manuals for the qualitative interviews of the child day care centres, evaluation sheets for the educators and to prepare the materials for the course.

The first contact with the child day care centres participating in the programme (qualitative interviews and discussion of the planned programme with the centre managers and the educators) was to be carried out in August 2005. Subsequently, three weeks were scheduled to inform the parents about the project and to distribute the parents' questionnaires. The project was to be carried out in the child day care centres from the last weeks of September until the end of October 2005. Two months (November / December) were scheduled to analyse the evaluation-data and to summarize the results of the process evaluation.

The staff requirements included an experienced educator and a medical doctor. The process evaluation during the intervention was to be carried out by the educators, who usually cared for the children. To provide the dressing material (e.g. bandages, plasters), the local pharmacies were asked for donations. No additional financial resources were available.

7.2 Does the objective to improve the perspectives of children with migratory background fit with existing policy?

Due to the results of the PISA-study, the public discussion about the German education system has been intensified. In respect to the limited perspectives of migrant children, the German discussion has mainly focused on programmes aiming at improving the language skills of preschool children. Recently, a broader view on the objectives and practices of preschool education is emerging. These developments are markedly influenced by the more systematic approaches of modern preschool education programmes in other countries (e.g. Sweden, Denmark, Norway, England, Australia).

On the political scene, it was decided to improve the financial situation of poor families by introducing a new law (“Viertes Gesetz für moderne Dienstleistungen am Arbeitsmarkt im Bundeskindergeldgesetz”). On the basis of this law, parents with low income receive a financial support of 140 Euro per month and child, which is paid since January 2005 in addition to the child benefit of 154 Euro per month [1].

To improve the professional perspectives and to prevent educational disadvantages, there was a general agreement to promote the early and individual education of all children. According to the recommendations of the “Forum Bildung”, this should be achieved by an increased use of child day care centres to support early educational processes. Furthermore, it was decided to increase the number of child day care centres for children below the age of three years in order to improve the compatibility of family and profession. To implement innovative model projects promoting the early development of children additional financial support is provided. Currently, the states prepare the implementation of systematic education-plans for child day care centres, aiming at an improvement of the cooperation between child day care centres and primary schools [1].

8 Evaluation of the programme of first aid

To assess the quality of an educational setting one can focus on three different aspects: the first aspect represents the treatment characteristics (such as teacher style, the content of the programme or teaching methods). The second aspect concerns the effects of education (such as successful transition to the next stage of education or the development of democratic attitudes). The third category contains the process variables (such as the time the students are on task, the quality of interaction or the level of cognitive processes, e.g. the amount of reproduction, divergent thinking or meta-cognitive activity).

The main inconvenience of evaluating using treatment characteristics is represented by the problem, that one can never be sure how the way they affect individual students and sub-groups of students [36]. Because of the complexity of the educational process and the many intervening factors (including the home environment) the identification of these important treatment factors is in itself a work of interpretation and full of uncertainties. Concerning the effect side, there are problems associated with the validity and reliability of instruments especially for young children [36]. In addition, the effect-evaluation might be hampered by the fact that the feedback concerning a certain practice only shows up after years [37].

Bearing in mind all the inconveniences linked to the treatment and effect variables, the process variables offer some interesting perspectives. First of all, the perspective of the child's action is a more precise point of reference for the assessment of quality than the teacher's efforts. Process variables refer to what is happening with the child as a result of the educational conditions. They show how a certain method or approach affects the individual child or a particular group of children. The most comprehensive way to judge about the quality of an educational progress, is to focus on the degree of "emotional well-being" and on the level of "involvement". The concept of evaluating the "emotional well-being" is based on the "flow-concept" of Csikszentmihayis [38]. In contrast to the "flow-concept", the concept of "involvement" focuses not exclusively on the evaluation of emotions, but mainly on the activity itself. This concept was developed at the University of Leuven and is currently used to evaluate educational programmes in multiple European countries [36, 39].

8.1 Development of appropriate means for evaluation

To perform an appropriate process evaluation of the first-aid-course, the process variables were defined according the above-mentioned concept of "involvement" [36]. The involvement is considered as an essential quality of human activity, which can be characterized by evaluating the level of concentration and persistence. At a closer look, involvement is distinguished by a series of characteristics on the level of inner experience: there is a strong motivation, one is fascinated and totally implicated. Furthermore, there is an openness to stimuli and an intensity of experience both at the sensoric and cognitive level. Further analysis reveals a manifest feeling of satisfaction and a kind of bodily felt stream of positive

energy, which can be observed daily in the play activity of children (“the state of flow”) [36].

To operationalize the concept of involvement for the programme of first aid, a rating scale was used. This scale was based on the “Leuven Involvement Scale for young Children” (LIS-YC) [36], but it was restricted to three different levels. Level 1 was defined as “no real activity”. At level 2 the child is doing “something” (e.g. listening, experimenting, interacting with others), but there are no signals for concentrated, motivated, enjoyed activity (the child is functioning on a “routine level”). At level 3 the child is very concentrated and really enjoys the activity. Posture and mimic express a kind of positive tension. The level of the performance matches the capabilities of the child. Any disturbance or interruption would be experienced as very frustrating.

According to the original concept of involvement, the rating process is guided by the evaluation of nine observable behavioural components that can be regarded as indications of involvement. (These are: concentration and persistence, energy, complexity and creativity, expression and posture, accuracy, reaction time, language, satisfaction). Concerning the project of first aid, it was decided to restrict the list on six behavioural components (concentration, persistence, energy, complexity and creativity, accuracy, satisfaction).

8.2 Implementation of a pilot project to test the programme

The pilot project was conducted in a child day care centre situated in a neighbourhood-district. The social conditions of the people living there were comparable to the ones closely identified to the district the programme was planned for. The first round of the one-week pilot-course was started in April 2005. Despite the problem of possible “contamination”, it was intended to divide the group of 18 preschool children into an intervention-group and a control group. Having finished the intervention with the children of the intervention-group, the parents of the other children (the control-group) complained about the fact, that their children were not integrated into the programme of first aid. Thus the manager of the child day care centre recommended to start another one-week course for the children of the original “control group”. These intentions were accepted and the second round was scheduled to take place four weeks later. During the interval of four weeks, the process evaluation of the first round was analysed. Subsequently several organizational details of the programme were optimized. Following the process evaluation of the first phase of implementation, the structure and the elements of the programme were established (see section 2.1).

8.3 Process Evaluation

All preschool children (n=95) attending the five municipal child day care centres of Hamburg Horn were included into the project. Four children, who participated less than three days of the one week course were excluded from the final evaluation. The results of the children who were absent only one or two days were included into the evaluation.

To evaluate the involvement of the children into the different elements of the programme, one out of four behavioural components (“energy”, “accuracy”, “concentration”, “complexity and creativity”) was evaluated by the educators during the programme at day 1, 2, 3 and 4. The “persistence” was evaluated using the parents’ questionnaire, which asked for the persistence of the children to play with their first-aid-kits after the course had been finished. The “satisfaction” of the children was evaluated by asking the children, which part of the programme they enjoyed the most.

To compare the involvement between German and non-German children, each of the 91 children under evaluation was assigned to the group of non-German children or to the group of German children. Non-German children were characterized by the facts, that their first language was not German and that at least one parent had a different (non-German) origin.

At each day, the educators determined the level of involvement concerning a specific behavioural element (see section 8.1) for each child. To compare the involvement of non-German children to German children, the average levels (mean values) of the two groups were determined. Data were expressed as mean \pm SD. Statistical significance was evaluated using the Mann-Whitney Test. P-levels of less than 0.05 were considered to be statistically significant.

8.3.1 Evaluation of day 1: How to comfort an injured child?

Using the living-puppet “Pelle”, the children were confronted with the situation of assisting a child who was injured due to an accident at the playground. After motivating the children to comfort Pelle, they managed the situation in different ways, which could be characterized by five different types of action:

- to caress / to kiss Pelle (39 out of 85)
- to offer him a drink / something to eat (4 out of 85)
- to spend him a toy / a game (3 out of 85)
- to speak to Pelle / to tell him a story / to sing a song for Pelle (5 out of 85)
- to cover Pelle using a blanket / to put a cool-pack on his contusion (8 out of 85).

The energy, which characterized the activity of the children was operationalized as follows:

- level 1: no participation
- level 2: moderate activity
- level 3: strong activity, high level of engagement and enthusiasm.

Results:

The level of the energy determining the involvement was:

- level 1: 26 out of 85 (30.6%)
- level 2: 32 out of 85 (37.6%)
- level 3: 27 out of 85 (31.8%).

As demonstrated by these figures, most of the children showed empathy and tried to comfort Pelle by caressing him. In contrast, nearly one third of the children did not get actively involved into the situation. The percentage of children who were not involved did not significantly differ between the group of children with migratory background and the group of German children (migrant children: 28.3% (15 out of 53), German children: 34.4% (11 out of 32). These results indicate, that further efforts are necessary in order to achieve a higher percentage of involved children.

The average-level of the involvement achieved by the migrant children was similar compared to the level achieved by the children of German origin (migrant children 2.0; children of German origin 2.0, see summary p44).

8.3.2 Evaluation of day 2: How to call for help?

After modelling an emergency situation and an emergency phone-call with the help of Pelle, the children were asked, to perform an emergency phone-call correctly by answering the questions “who is speaking?”, “where did it happen?” , “what has happened?”.

Only the elements which were spontaneously accurate (without being supported by questions from the phone partner) were counted as correct. The level of accuracy of the emergency-phone call was operationalized as follows:

- level 1: The child only answered one of the questions
- level 2: The child spontaneously answered two of the respective questions
- level 3: The child spontaneously answered all three questions correctly.

Results:

The level of the accuracy characterizing the involvement was:

- level 1: 33 out of 87 (37.9%)
- level 2: 42 out of 87 (48.3%)
- level 3: 12 out of 87 (13.8%).

Especially in respect to level 1 (only one question was answered correctly), the migrant children were overrepresented (24 out of 55 migrant children (43.6%) versus 9 out of 32 children of German origin (28.1%).

However, the average-level of the migrant children of 1.7 was not significantly different compared to the average-level of the German children achieving 1.9.

In general, most of the children were able to answer the questions “who is speaking?” and “what has happened?”, but the majority forgot to tell the location of the accident (“where did it happen?”). Therefore most of the children only achieved level 2, and the average-levels of both groups remained relatively low. These results indicate, that most of the preschool-children had difficulties to telephone for help independently whether their origin was German or non-German.

8.3.3 Evaluation of day 3: How to bandage cuts and grazes?

The experiments demonstrating a cut and a graze were followed by practical exercises. After forming teams, the children were asked to bandage the wounds of their partners.

Firstly, it was noted whether the children were able to decide where to stick the plaster (small cut) and where to put the bandage (big bruise). The accuracy of bandaging was operationalized as follows:

- level 1: Both decisions were wrong.
- level 2: One of the two decisions was wrong.
- level 3: Plaster and bandage were dressed in an appropriate way.

Results:

Most of the children (83.9%) put the plaster over the small cut and the bandage over the big bruise.

The average-levels of both groups were high (migrant children: 2.7; German children: 2.9) and did not show a significant difference.

Secondly, the concentration during the bandaging-activity was evaluated at 15 minutes after starting the team work. The level of concentration was operationalized as follows:

- level 1: The child is no more interested in bandaging his / her partner.
- level 2: The child is busy, but doesn't make strong efforts to bandage his / her partner.
- level 3: the child is very preoccupied to bandage his / her partner correctly.

Results:

- level 1: 2 out of 87 (2.3%)
- level 2: 25 out of 87 (28.7%)
- level 3: 60 out of 87 (69.0%).

As demonstrated by these figures, more than two thirds of the children were highly involved into the task and achieved level 3 independently to which group they belonged. Thus, the average-levels of both groups were high (migrant children: 2.6; German children 2.8) and did not significantly differ.

Thirdly the persistence of the bandaging activity was evaluated. The parents were asked whether their children were playing with their first-aid-kit after the course had been finished. (The second parents' questionnaire was distributed two weeks after the first-aid-course was finished and had a sufficient return rate of 64.2%). The persistence was operationalized as follows:

- level 1: The child did not play with his / her first-aid-kit.
- level 2: The child occasionally played with his / her first-aid-kit.
- level 3: The child regularly (= every day during the two weeks following the course of first aid) played with his / her first-aid-kit.

Results:

- level 1: 2 out of 60 (3.3%)
- level 2: 36 out of 60 (60.0%)
- level 3: 22 out of 60 (36.7%)

Except for two cases, all children had reported their parents about the first-aid-course every day (47.5% (29 out of 61)) or at least at several days (49.2% (30 out of 61)).

These figures demonstrate, that nearly all children played with their first-aid-materials after the course had been finished. Concerning the means of the two groups, there were no differences related to different cultural backgrounds (migrant children: 2.3; German children: 2.4)

8.3.4 Evaluation of day 4: Being aware of dangers of burns.

After demonstrating an experiment showing a burned tomato, the children were motivated to think about possible dangers of burns. They were asked to draw two pictures showing different dangers of burns. The complexity of their ideas was operationalized as follows:

- level 1: The child draws one or two pictures showing the dangers, which already had been demonstrated by the above-mentioned experiment (candle, lighter).
- level 2: The child draws two pictures, of which at least one shows another danger than demonstrated by the experiment. Alternatively the child draws at least one picture showing consequences or measures following an exposure to heat or fire. (e.g. to put a burned finger into cold water, fire-engine extinguishing a fire).
- level 3: The child draws two pictures illustrating dangers, which were not used during the initial experiment. Alternatively the child draws one picture demonstrating a danger of burns and another picture showing consequences or measures following an exposure to heat or fire.

Results:

- level 1: 12 out of 88 (13.6%)
- level 2: 38 out of 88 (43.2%)
- level 3: 38 out of 88 (43.2%).

The task to imagine several heat sources proved to be difficult for more than half of the children. Only 43% drew two different dangers of burns (or some consequences or measures being taken after a heat-induced injury happened), which was graded by level 3. Whereas two thirds (66.6%, 22 out of 33) of the children of German origin reached level 3, this was achieved by less than one third (29.1%, 16 out of 55) of the migrant children. The percentage of migrant children reaching the lowest level (level 1; one or two dangers of burns not different from the ones used by the experiment) was nearly twice as high compared to the children of German origin (16.4% (9 out of 55) versus 9.1% (3 out of 33)).

Due to the above-described differences, the average-level achieved by migrant children was lower compared to the average-level of the German children (2.1 (migrant children) versus 2.6 (German children)). In contrast to the results of the other days, the difference found at day 4 was highly significant ($p=0.002$). This suggests that the German children were more experienced and / or more trained to develop metacognitions. Furthermore the results indicate, that the design of the session was not suitable for many migrant children.

8.3.5 Evaluation of day 5: Which subject did you enjoy the most?

The satisfaction of the children regarding the different elements of the programme was evaluated. After summarizing the subjects of day 1 to day 5, the children were asked, which day of the course they enjoyed the most.

Results (the answers were not graded):

- day 1 (comforting Pelle): 9 denominations
- day 2 (telephoning for help): 17 denominations
- day 3 (bandaging): 25 denominations
- day 4 (dangers for burns): 20 denominations
- day 5 (prevention of insect stings): 19 denominations
- nothing: 6 denominations.

(Since some of them mentioned several subjects, the total number (96) exceeded the number of participants (79)).

These figures demonstrate, that the subjects of day 2, 3, 4 and 5 were preferred by comparable numbers of children (approximately 20 (17 to 25) denominations for each subject). In contrast, only nine children preferred day 1. This might be due to the fact that the activity of comforting Pelle was less impressive compared to the activities of the other days. Furthermore, at day 1 the percentage of uninvolved children was much higher compared to the other days.

8.3.6 Evaluation of the language skills

The language-skills of the children were evaluated by the educators. The level of comprehension and speech of the German language were operationalized as follows:

- level 1: comprehension insufficient, speech insufficient
- level 2: comprehension moderate, speech insufficient
- level 3: comprehension well, speech insufficient
- level 4: comprehension well, speech moderate
- level 5: comprehension well, speech well.

Results:

- level 1: 0
- level 2: 9 out of 91 (9.9%)
- level 3: 11 out of 91 (12.1%)
- level 4: 22 out of 91 (24.2%)
- level 5: 49 out of 91 (53.8%)

As demonstrated by these figures, only half of the children were found to have good command of German. The mean of the children with migratory background was lower compared to the children of German origin (migrant children: 4.1 ± 1.1 (mean \pm SD); German children: 4.4 ± 0.9 (mean \pm SD), but the difference was not statistically significant. The fact that the difference between the two groups was relatively low suggested that many German children do not have a good command of German. In fact 32.4% of the German children were found to have limited language skills characterized by level 3 and 4. The percentage of children characterized by level 2 was higher in the group of children with migratory background (migrant children: 12.3%; German children: 5.9%).

Summary of the evaluation:

Day	Task	Element of Behaviour	Children of Non-German origin (mean \pm SD)	Children of German origin (mean \pm SD)
1	To comfort another child	Energy	2.0 ± 0.8	2.0 ± 0.8
2	To telephone for help	Accuracy	1.7 ± 0.6	1.9 ± 0.7
3	To bandage another child	Concentration	2.6 ± 0.6	2.8 ± 0.4
4	To reflect about dangers of burns	Complexity and Creativity	2.1 ± 0.7	2.6 ± 0.7

9 Impact Evaluation

The impact evaluation of the present project was limited to some aspects, which were obtained by an informal interview of the educators and by the parents' questionnaires 1 and 2 (fig.8-10, p59-61; fig.11-13, p62-64).

9.1 Answers of the educators

Four weeks after the first-aid-courses were finished, the educators were interviewed about the impact of the course on the behaviour of the preschool children.

Firstly they were asked, whether the children have shown a persistent interest in using the materials they had received during the first-aid-project. The educators of all child day care centres stated, that the children were using the materials of the first-aid-course during a period of several weeks. The course-posters (hanging in the group-room of the preschool children and / or in the entrance hall) were frequently discussed by the children and presented to the parents. Similarly, many children often played with the dressing materials provided by the first-aid-kits, which were stored in the group-rooms of the children.

Secondly the educators were asked, whether the behaviour of the children in case of "usual injuries" has changed since they were participating in the course of first aid. Several educators (3 out of 5) noticed, that the capacity of the children to manage "usual" injuries (small cuts/bruises) had improved due to the first-aid-course. Similarly, other educators (2 out of 5) reported, that several parents had noticed an increasing competence of their children to bandage small wounds occurring at home.

When asked about their own ideas dealing with the subject of first aid, only two centres planned additional activities. During the next months, they planned visits at the fire-brigade, the local hospital and the police-station.

9.2 Answers of the parents:

Using the parents' questionnaire, a few elements characterizing the knowledge and the behaviour of the children were analysed in order to compare the situation before the course to the situation after the course.

Before the course, the parents stated that 10.8% (7 out of 65) of the children did not know where to find plasters in their household. In contrast, after the course all children (60 out of 60) were supposed to know where to find plasters in their household.

The question whether the families store cool-packs or ice-cubes in their fridge did not yield a positive impact of the first-aid-course, during which the children had received their own cool-packs. Before the course 9.2% (6 out of 65) did not store any cooling-materials. After the course, no materials were stored by 13.1% (8 out of 61).

Before the course, the percentage of children being used to bandage small injuries was low (13.8% (9 out of 65)). The chance to increase this figure was evaluated by asking the parents, whether they believe that their children now would be able to bandage small injuries. After the first-aid-course 90.2% (55 out of 61) of the parents believed, that their children would be able to bandage small wounds on their own. Three parents were not sure about the bandaging skills of their children and three parents believed that their children still would be unable to bandage small wounds.

10 Abstract

The aim of the project was to develop a programme of first aid which is suitable for preschool children with different cultural backgrounds. Therefore an integrative approach including non-verbal and symbolic elements was chosen. Based on social learning theory, a big hand-puppet was used to model different aspects of emergency situations. Simple experiments served to demonstrate injuries requiring interventions of first aid. Preventive elements focused on traffic-safety and on the prevention of burns and insect stings.

Methods: The first-aid-project was planned according to the PRECEDE-PROCEED Model. It was conducted in five municipal child day care centres which were localized in a socially disadvantaged district (“settings approach”). All preschool children who attended the centres were included into the study (n=95). The involvement of the children into several activities was evaluated by the educators using a three-level rating scale. The results of the children with migratory background were compared to the results of the German children.

Results: In respect to activities dealing with social behaviour, calling for help and bandaging, migrant children were as involved as German children. In contrast, a significant difference was found, when the children were asked to imagine dangers of burns.

Conclusion: With the exception of one session focusing on the prevention of burns, the programme proved to be suitable for children with different socio-cultural backgrounds.

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11 Attachment

11.1 Leaflet and Information letter

Liebe Eltern,

jährlich passieren Tausende von Unfällen mit Kindern im Vorschulalter. Wenn Kinder Unfälle erleben, so empfinden sie dies häufig als bedrohlich und fühlen sich hilflos.

Dieser Erste-Hilfe-Kurs soll dazu dienen, die Kinder zu einem verantwortungsbewussten und selbständigen Umgang mit Unfallsituationen zu ermutigen. Um dies zu erreichen, werden Möglichkeiten zur Übernahme von Verantwortung erarbeitet. Die Kinder sollten wissen, wie man z.B. ein vom Rad gefallenes Kind tröstet oder Hilfe holt. Außerdem werden ihnen einfache Regeln der Ersten Hilfe, wie z.B. das Anlegen eines Pflasterverbandes beigebracht.

Um das Risiko von Unfällen zu senken, sollen die Kinder für Gefahrensituationen sensibilisiert werden und in die Lage versetzt werden, von sich aus sicheres Verhalten zu zeigen.

Inhalt des Kursprogramms:

- Wie tröste ich ein verletztes Kind?
- Wie hole ich Hilfe?
- Erstversorgung von Schnitt- und Schürfwunden.
- Ersthilfe bei Verbrennungen und Insektenstichen.
- Wie vermeide ich Verbrennungen, Insektenstiche und Verletzungen?

figure 1

Dear parents,

every year thousands of accidents happen with preschool children. When children experience an accident, this often causes feelings of being threatened and helpless.

This first-aid-course aims to encourage children to act responsibly and self-confident if an accident has happened. To achieve this, we work on possibilities to assume responsibility. The children should know how to console a child who fell from his / her bike or how to look for somebody who could help. In addition, simple rules of first aid, such as putting on a sticking-plaster, will be taught.

To diminish the risk of accidents, the children should become acquainted with dangerous situations, which would enable them to behave safely.

Content of the course:

- How to console a child who was injured?
- How to find somebody who could help?
- First aid in case of cuts and grazes.
- First aid in case of burns and insect stings.
- How to avoid burns, insect stings and injuries?

figure 2

Sevgili Ana ve Babalar,

Her yıl okul öncesi yaştaki çocukların katıldığı binlerce kaza yaşanıyor. Çocuklar kaza geçirince, çoğu kez bunu tehlikeli görüyor ve kendilerini çaresiz hissediyor.

Bu ilk yardım kursu, çocukların kazalar karşısında sorumluluk bilinci ve özgüveniyle davranmalarını cesaretlendirmek için hazırlanmıştır. Bunu sağlamak için, sorumluluk üstlenme olanakları işlenecektir. Çocukların, örneğin bisikletten düşen bir çocuğun nasıl teselli edileceğini veya nasıl yardım isteneceğini bilmeleri gerekir.

Ayrıca nasıl sargı bezi (flaster) sarılacağı gibi ilk yardımın basit kuralları çocuklara öğretilecektir.

Kaza rizikosunu azaltmak için, çocuklar tehlike durumlarına karşı duyarlı ve kendiliklerinden emniyetli davranış gösterecek hale getirilmelidir.

Kurs Programının İçeriği:

- Yaralı bir çocuğu nasıl teselli ederim?
- Nasıl yardım isterim?
- Kesik ve sıyrık yaralanmalarında ilk bakım.
- Yanık ve böcek sokmalarında ilk yardım.
- Yanık, böcek sokması ve yaralanmalardan nasıl sakınırım?

Informationsblatt für die Eltern

Liebe Eltern,

in zwei Wochen wird in der KiTa ein Erste-Hilfe-Kurs für Vorschulkinder stattfinden, dessen Programm Sie aus dem beiliegenden Faltblatt entnehmen können. Wir möchten Sie bitten, Ihrem Kind **eine Pappschachtel** (mit abnehmbarem Deckel) mitzugeben, damit wir einen Erste-Hilfe-Koffer basteln können. Die Schachtel sollte ungefähr die Größe einer kleinen Schuhschachtel haben.

Die Ergebnisse dieses Kurses werden von einer Studiengruppe der Fachhochschule für Angewandte Wissenschaften Hamburg untersucht. Wir würden uns daher sehr freuen, wenn Sie bereit wären, die Fragebögen der Studiengruppe auszufüllen. Wir versichern, dass alle Angaben vertraulich behandelt werden und nur in anonymisierter Form verwendet werden.

Wir bitten Sie, den beiliegenden Fragebogen in den nächsten Tagen in der KiTa abzugeben.

Mit freundlichen Grüßen

Ihre KiTa-Leitung

11.2 Questionnaires

Befragung der Leitung der Kindertagesstätte:

1. Soziales Umfeld der Einrichtung

a) Wohngebiete der Umgebung:

benachteiligt: Brennpunktlage?
Übergangswohnheime, Asylantenwohnheime?
Vorwiegend Sozialwohnungen,
Mietwohnblöcke?

Bürgerlich: vorwiegend Eigenheime?

Gemischt:

b) Soziale Situation der Eltern (+ ungefähre %-Angaben der einzelnen Gruppen)

Häufig gutverdienend <-> häufig geringverdienend

Gutgestellt <-> benachteiligt:

Häufig ist mind. ein Elternteil arbeitslos
Hoher Ausländeranteil
Hoher Anteil von Sozialhilfeempfängern
Hoher Anteil Alleinerziehener (M/V)
Ki, die durch soz. Dienste in KiTa sind

Gemischt

figure 5

2. Strukturen der Einrichtung:

a) Die Einrichtung betreut insgesamt _____ Kinder,
davon im Elementarbereich: _____ Kinder

b) Die Einrichtung verfügt aktuell über _____ betreuende Mitarbeiter mit folgenden Qualifikationen:

ErzieherInnen	
KinderpflegerInnen/Sozialpäd. Assistent.	
Praktikanten	
Andere	

Insges. (zus. mit Hauswirtschaftsbereich): _____

c) Die Einrichtung hat folgende Betreuungszeiten:

Wochentage	Betreuungsstunden

d) Anzahl von Kindern bestimmter Subgruppen insges./ im Elementarbereich:

	Anzahl im Elementarber.
Ki mit Migrationshintergrund	
Integrationskinder	
Ki, die über Ki- u. Jugendhilfegesetz in der Einrichtung sind	

Nationalitäten (nach Häufigkeit)

Migrationshintergrund =

Muttersprache (1. Sprache) ist nicht deutsch

u. mind. 1 Elternteil stammt aus einem anderen Herkunftsland als Deutschland.

(Unabhängig vom Vorhandensein eines deutschen Passes, da dies auch bei „ganz schwarzen“ Kindern oft der Fall sei, weil irgendwo ein deutscher Vater existiere“, Pass sagt also nichts über den „gelebten“ Migrationshintergrund).

figure 6

3. Umsetzung des Themas Gesundheit

- a) bezogen auf die Kinder im Elementarbereich?
(z.B. „Alltagsregeln“ und regelm. Angebote (z.B. Sport, Entspannungsmöglichkeiten, Zahnpflege, Ernährung, Bewegung)?
- b) Zu welchen anderen Einrichtungen haben sie Kontakt?
- c) Welche besonderen Angebote zur Gesundheitsförderung gab es in den letzten 12 Monaten?
- d) Wurden diese Angebote evaluiert?
- e) in welchen Bereichen wäre eine Erweiterung des Angebots wünschenswert?
- f) Wieviele Unfälle / Verletzungen gab es im letzten Jahr?

Leichte U. _____

Schwere U. a) mit Arztbesuch

b) mit Notarztwagen

- g) Wo sind die Unfälle passiert? Welche Ursachen hatten diese Unfälle?
Orte:
Ursachen:
- h) Waren Jungen häufiger betroffen als Mädchen (bei schweren U.)?
- i) Zeigen Jungen und Mädchen Unterschiede im Verhalten gegenüber einem verletzten Kind?
- j) Unterscheidet sich das Verhalten gegenüber einem verletzten Kind zwischen Jungen deutscher und Jungen anderer, z.B. türkischer Herkunft bzw. zwischen Mädchen deutscher und Mädchen anderer, z.B. türkischer Herkunft?
- k) Wäre die Einführung eines Erste-Hilfe-Kurses für Vorschulkinder sinnvoll, wenn ja, warum?
- l) Welche Schwerpunkte sollte ein solcher Kurs besitzen?
- m) Wird eine Erweiterung des Erste-Hilfe-Themas geplant (z.B. Besuch bei der Feuerwehr, im Krankenhaus, in der Arztpraxis)
- n) Gab es in den letzten drei Jahren Fortbildungen zum Thema Erste-Hilfe für die Betreuungspersonen (Erzieherinnen, Kinderpflegerinnen) der Kinder ?

figure 7

Befragung der Eltern zwei Wochen vor Kursbeginn

Name des Kindes: _____

Bitte markieren Sie je eine Antwort zu den Fragen 1 - 5 und geben Sie den Bogen in den nächsten Tagen in der KiTa ab.

1. In unserer Familie unterhalten wir uns hauptsächlich auf

deutsch

türkisch

englisch

einer anderen Sprache: _____

2. Das Kind weiß, wo es bei uns im Haushalt Pflaster findet

Ja

Nein

3. In unserem Gefrierfach haben wir Eiswürfel (oder ein Kühlkissen) gegen Verletzungen

Ja

Nein

4. Kleine Verletzungen werden in der Regel

vom Kind selbst

von Vater / Mutter

verbunden.

5. Ich finde das Angebot eines Erste-Hilfe Kurses für mein Kind

sinnvoll

nicht sinnvoll

6. Für den Erste-Hilfe-Kurs in der KiTa wäre mir wichtig:

figure 8

Questionnaire for parents (two weeks before the course starts)

Name of the child: _____

Please give only one answer to questions 1 - 5 and return the questionnaire to the KiTa during the next days.

1. In our family we speak primarily

German

Turkish

English

Other language: _____

2. The child knows, where to find sticking-plasters at home

Yes

No

3. In our freezer we store ice-cubes (or a cool-compress) for injuries

Yes

No

4. Small injuries are usually bandaged by

the child itself

the father / mother

5. I believe to offer a first aid-course for my child is

a good idea

no good idea

6. Concerning the first aid-course, I think it would be important, that:

figure 9

Veliler Soruş turması Kurstan 2 hafta önce

Çocuğun Ismi: _____

Lütfen 1-5 e kadar bir cevap işaretleyin ve Kita ya geri verin.

1. Aile arasında genellikle konuştuğumuz dil

almanca

türkce

ingilizce

baska bir dilde: _____

2. Çocuğum evdeki yarabandının yerini biliyor.

evet

hayir

3. Buz dolabımız da Buz (veya Buzyastığı) var kazalara karşı.

evet

hayir

4. Küçük yaralar genelde

çocuğum sarar

Anne / Baba sarar

5. Ben çocuğumun ilkyardım kursu yapmasını

anlamlı

anlamsız buluyorum.

6. Kita daki ilkyardım kursu için önemli bulduğum seyler:

figure 10

Befragung der Eltern 2 Wochen nach Beendigung des Kurses

Name des Kindes: _____

Bitte markieren Sie je eine Antwort zu den Fragen 1 - 5 und geben Sie den Bogen in den nächsten Tagen in der KiTa ab.

1. Während des Kurses hat mir das Kind vom Erste-Hilfe-Kurs erzählt

- Täglich
Manchmal
Gar nicht

2. Nach dem Kurs hat mein Kind mit seinem Erste-Hilfe-Koffer gespielt

- Täglich
Manchmal
Gar nicht

3. Das Kind hat das Kühlkissen aus dem Erste-Hilfe-Koffer in unser Gefrierfach gelegt

- Ja
Nein

4. Das Kind weiß, wo es bei uns im Haushalt Pflaster findet

- Ja
Nein

5. Ich denke, das Kind kann kleinere Verletzungen jetzt selbst verbinden

- Ja
Nein

figure 11

Questionnaire for parents (two weeks after the course)

Name of the child: _____

Please give only one answer to questions 1 - 5 and return the questionnaire to the KiTa during the next days.

1. During the course, my child told me about the first aid-course

every day
sometimes
not at all

2. After the course was finished, the child played with its first aid-case

every day
sometimes
not at all

3. The child stored the cool-compress, which was in its first aid-case in our freezer

yes
no

4. The child knows where to find sticking-plasters at home

yes
no

5. I believe the child is now able to bandage small injuries by himself / herself

yes
no

figure 12

Veliler Soruş turması Kurstan 2 hafta sonra

Çocuğun İsmi: _____

Lütfen 1-5 e kadar bir cevap işaretleyin ve Kita ya verin.

1. Kurs sırasın da Çocuğum ilkyardım ile şeyler anlattı.

her gün

bazen

hiç

2. Kurstan sonra Çocuğum ilkyardım çantasıyla oynadı.

her gün

bazen

hiç

3. Çocuğum sogutma yastığını ilkyardım çantasından çıkarıp derin dondurucuya koydu.

evet

hayır

4. Çocuğum evdeki yarabandının yerini biliyor.

evet

hayır

5. Çocuğumun küçük yaraları kendi saracağını düşünüyorum.

evet

hayır

figure 13

11.3 Traffic poster

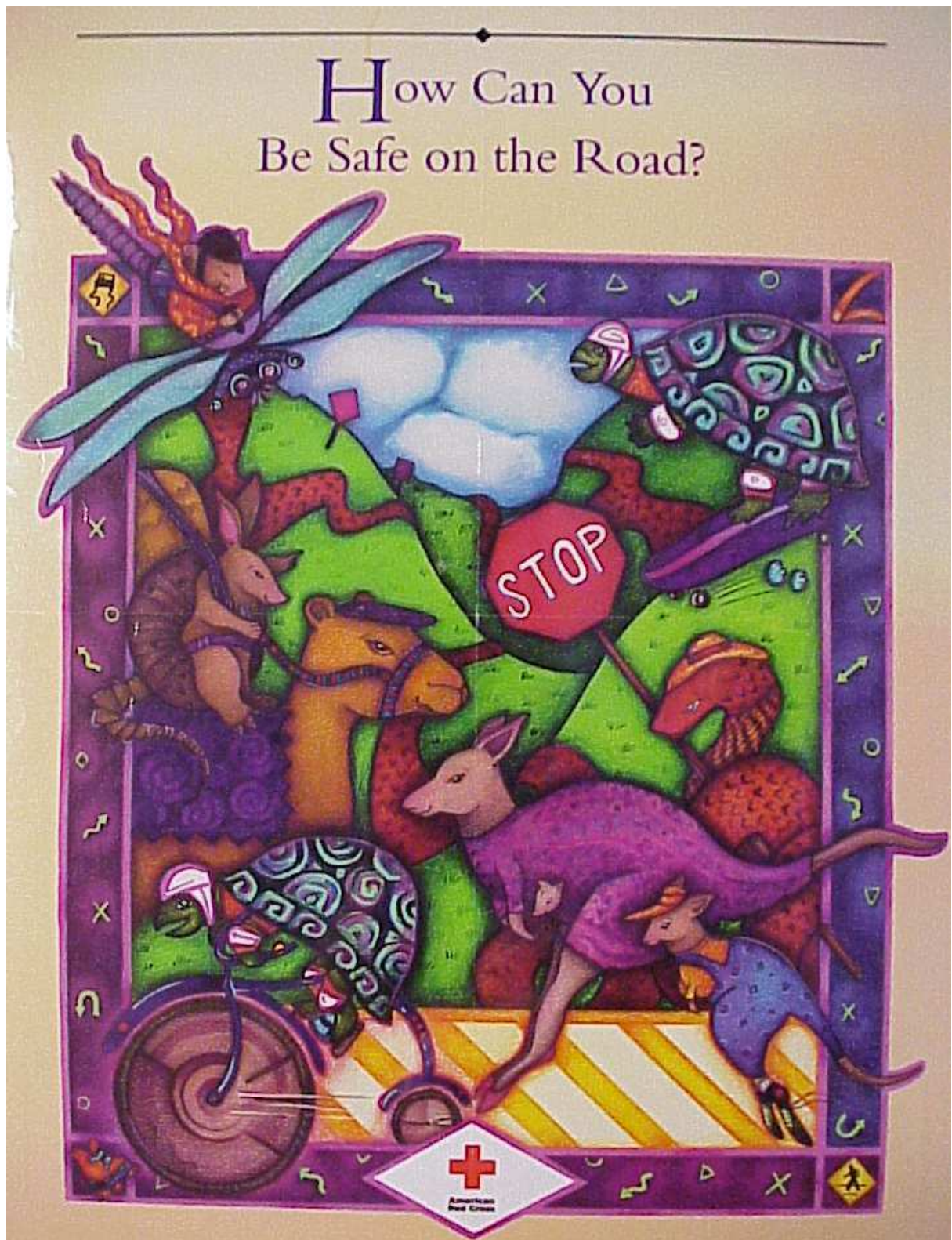


figure 14

11.4 Bike song (Fahrradlied) by Rolf Zuckowsky

Refrain:

An meinem Fahrrad ist alles dran,
damit so leicht nichts passieren kann,
wenn ich mich auf meinen Sattel schwing,
ist so ein Fahrrad ein tolles Ding.

1.

Ich habe 'ne Klingel am Lenker vorn,
und nebenan ist meine Handbremse,
und die bremst enorm.
Ich hab ne Lampe, die scheint voran,
und mit dem roten Rücklicht hinten, sieht mich jedermann.

2.

Mein Katzenauge, das strahlt zurück,
auch an den Füßen die Pedale,
leuchten auf beim ersten Blick,
in meinen Speichen ist etwas drin,
vier Reflektoren blinken gelb,
damit ich gut zu sehen bin.

3.

Zwei große Strahler, die leuchten hell,
nach vorne weiß, nach hinten rot.
Ja, die sieht jeder schnell,
und weil die Technik mir sonst nichts nützt,
fahr ich so sicher, wie ich kann,
und bin mit einem Helm geschützt.

4.

Der Polizist, der dieses Lied hört,
denkt bestimmt, da fehlt noch was,
doch wenn ich mit dem Rücktritt bremse,
bleib ich stehn, und er wird blass.

11.5 Pictures

11.5.1 Day 1



figure 15



figure 16



figure 17



figure 18



figure 19

11.5.2 Day 2



figure 20



figure 21



figure 22



figure 23



figure 24

11.5.3 Day 3



figure 25



figure 26



figure 27



figure 28



figure 29

11.5.4 Day 4



figure 30



figure 31



figure 32



figure 33



figure 34

11.5.5 Day 5



figure 35



figure 36



figure 37



figure 38



figure 39

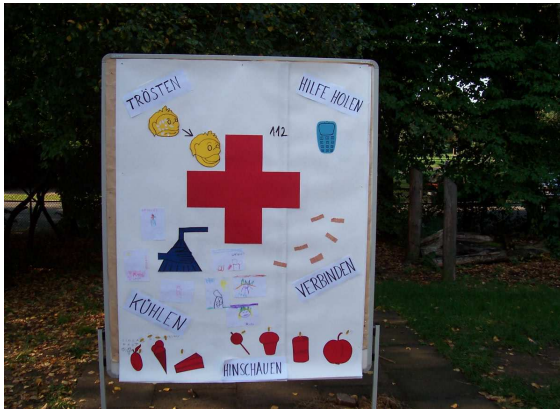


figure 40



figure 41



figure 42



figure 43

Eidesstattliche Erklärung

Ich versichere, dass ich vorliegende Arbeit ohne fremde Hilfe selbständig verfasst und nur die angegebenen Hilfsmittel benutzt habe. Wörtlich oder dem Sinn nach aus anderen Werken entnommene Stellen sind unter Angabe der Quelle kenntlich gemacht.

Dr. C. Petersen-Benz