

## CHILDREN'S PERCEPTION OF PREVENTION AND INJURY AND INTOXICATION RISKS

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Submitted: 2010-04-27

Accepted: 2010-08-16

Published online: 2010-12-27

### Abstract

The issue of children's accident rate is paid great attention. The majority of works deals with the causes of injuries, the mechanisms of their origin, etc. Only a few works focus on the target group of children who experiences, directly or indirectly, a severe injury event.

The objective was to use 10 cases to describe the perception of injury events of children – participants. For this purpose, a semi-standardized questionnaire was used which was supplemented with a drawing. The drawing was in the final assessment analysed by a clinical psychologist.

The method selected was the qualitative research of 10 children who experienced or witnessed an accident.

The results are based on the conclusions of individual interviews stating that the perception of an injury is strictly individual.

**Key words:** children – qualitative research – intoxication – prevention – risks – injury – perception

## INTRODUCTION

The issue of children's accident rate is paid great attention not only due to its growing trend, but also with regard to the relevance of risk children's injuries represent (Grivna et al. 2006).

The most important risk factors of an accident occurrence are: sex, age, achieved level of psychosomatic development, social and economic situation of the family, behaviour disorders, risky behaviour among the coevals, of teenagers and adults in a child's neighbourhood (Provazník and Komárek 2004, Čapková 2006).

Perception is the awareness of the ambient world by means of sight, hearing, taste, scent and touch (Honzák et al. 2006). In the present work I focus complexly on the term perception. Perception intermediates information both from the ambient environment and from one's body. However, it is also a process

of becoming aware of the experience with this information and their living. Perception is a complex phenomenon combining the past experience and the contemporary supply of information, and a complicated process of interpretation of these. Perception is always a personal (subjective) matter since we never know how the process of becoming aware run with other individuals (Nakonečný 2004, Honzák et al. 2006).

## METHODOLOGY AND MATERIAL

In the years 2008–2009 a qualitative research was conducted which focused on the perception of prevention and risks of injury and intoxication occurrence with children of 7 to 15 years of age. Semi-standardized interviews and drawings were conducted with the respondents.

The subject of the research was verbal and artistic perception of injuries, whilst the object was children who experienced an accident or witnessed an injury event. The selected method was the qualitative method – phenomenological research. The children were telling their stories first, and then they expressed these in a drawing. The individual drawings were later evaluated by clinical psychologist Iva Nesnídalová, Ph.D.

The research related to cooperation with children, therefore informed approval of the legal representatives of the children was requested. The legitimate representatives and also the children were advised on the anonymity and course of the research. In this case, active consent was used.

In the selection of the experimental group, the snowball technology was applied. The technology is defined as a selection of other cases based on the recommendation of an already studied individual (Hendl 2005). The research was conducted with children of 7 to 15 years of age. The respondents were assigned fictitious names. A total of 10 interviews took place. The first 3 pilot interviews aimed to find out whether the interview structured in the way it was would work in practice, and whether it was understandable for the target group of the group under study. Despite the interviews with the first three children were just experimental, the replies were so worthy that it was decided to include them among the selective group of respondents. In order to achieve as accurate data processing as possible, an MP3 voice mail was used to record the interviews. The audio record was further transmitted from the voice print to the text form and thus the data was prepared for the analysis (Miovský 2006).

The data was divided in categories as per the content, and later evaluated by successive comparing each statement to the others.

Once the interviews finished, the children and their parents received information materials relating to the issue of injuries and intoxication.

The first child spoken to was a girl known to the authoress who was trained on conducting the interview and tested for the suitability and comprehensibility of the questions asked. The practice of conducting the interview was beneficial mainly in the way of asking the questions and setting the appropriate duration

of the interview. Then two interviews with an unknown boy and a girl were conducted in order to find out what the cooperation would be with a strange child. Before the interview, the girl was asked to draw a picture which expressed a danger. Whilst the girl was drawing in one room, the boy was questioned in another room. He was a bit anxious at the beginning and had some problems to express himself but calmed down in a while and it was obvious that he was interested in the topic and cooperated actively. At the end of the interview the boy was asked to draw a picture which expressed a danger. The boy drew the picture and then they started to question the girl. The interview began by asking questions about her picture when she was explaining what she drew. It was concluded based on this experience, drawing a picture would be put to the very beginning at the next interviews. The child was more open and less anxious.

## RESULTS AND DISCUSSION

### Respondent 1: a 14-year-old girl (Klára)

#### Casuistic

*Now try to think if you want to tell me something more, what was dangerous in your life? Well (a silent moment), me and my girlfriend went where we were not supposed to go. We wanted to take a shortcut to cut the way a little. We crossed a bridge where trains were passing... (silence) We heard the train and wondered whether we should go and when we decided to go we started running so that the train could not catch us. There was no danger that the train could hit us, there was still some space we could stand to avoid an accident. So we ran fast, the train tooted and we got scared and ran even faster. When we got to the other side the train was just passing.*

*Do you think that if the train caught you in the middle of the bridge, nothing would have happened to you? We might probably got hurt. I think there was still some space, if we stood so that the train could pass. Do you think that there was enough space? If a train goes 100 km per hour, there is such a strong pressure coming from those rails that it could sweep you away. Did you not realize that? I probably did not realize this but yet I think that I counted with a space the train had*

around it and I even had something I could use to hold myself. There certainly was a risk but it was not so bad, there are worse things. *What is worse?* A danger that comes and you are not aware of it. You may go by car and somebody crashes your car.



Picture 1

### Psychological assessment of the picture

The above picture corresponds with the statement, both in terms of emotions and the subject drawn. It contains the experience of fear and jeopardy which was shown by the respondent in the picture very precisely and realistically. It is apparent that the experience of anxiety and fear was intense since they could really get hurt (running over their feet). The attributes of anxiety, fear, tension and jeopardy are present in the picture and expressed very precisely and massively.

R1 – “Nowadays people cross railway tracks very often. I see high risk when someone crosses the railway track with earphones without even looking round. It can easily happen that the individual does not hear the

coming train and might get run over.” The respondent had her own experience with a train (see casuistic). She evaluated her acting as slightly risky facing the picture she drew.

### Respondent 2: a 11-year-old boy (Antonín)

#### Casuistic

*Can you think of something more, what can be dangerous or what might hurt you?* When I play with matches at home. It happens quite often lately. *Why do you play with them?* I enjoy it. (smile) *Do you make fire at home?* Not really. (laughter) *How do you play with the matches?* For instance, I put a candle, light it and inject a little of this gas from the lighter and then the flame jumps over. *Why do you do this?* Because I like it. *Can anything happen to you?* (he is nodding yes) *And what can happen to you?* I can set the house on fire. *Do you think it is not that dangerous when you do this?* (shrugs) *Can this be dangerous for you or for somebody else?* Usually there is nobody because they would tell me off.



Picture 2

### Psychological assessment of the picture

The graphic manifestation does not correspond with the age, it is infantile, shifted to the preschool time. Real danger is contradictory to the smiling character. He probably impeached the task and the issue as a whole.

R2 drew a child playing on a sandpit, where there is a syringe laying in the sand. R2 saw a risk of getting injured by the needle and a risk of an infection by a dangerous disease. It

was good that his picture was not influenced by the interview, and that he drew a totally original dangerous situation. During the interview, R2 was nervous at the beginning and he had some problems to express himself. After some time he calmed down and was calmer and more capable of communication. His anxiousness vanished completely when R2 began to tell how he played with matches, lighter and candles at home. It was an activity he enjoyed doing, and so he was telling about it with passion. The rest of the interview ran in the similar spirit. The picture he drew did not relate to his personal experience.

**Respondent 3: a 7-year-old girl (Tereza)**

**Casuistic**

*Can you tell me something about the pictures you drew?* A child may get cut or I can touch electricity and something may happen. We should not play with matches since the match can fire and fall down on the floor and then all the flat or even house can be set on fire. When somebody burns a tree in a forest then it could affect people who pick something there. When hot water boils, e.g. for tea, some child may touch it and this could be very risky. *And what can happen to the child?* The child gets burned. This happened to me when I showered I got burned, too. *How did you get burned, just by running hot water?* Well, I wanted to close the hot water but I opened more instead, and got burned. *And what is on the next picture?* When some people get hit by

a storm and rain, we should not hide under a tree since the storm hits it and then the tree begins to burn. *What is on the last picture?* When strong wind blows, then the tree might fall on people.

**Psychological assessment of the picture**

A seven-year-old, very creative girl with imagination who thought of the task and created some situations. Her “interpretation” of what she drew is accurate and descriptive. An intelligent creator.

R3 perceives a danger coming out of sharp objects when she can cut herself, then a danger from an electric socket when she might get hurt by electric current. R3 considers dangerous playing with matches when an uncontrolled fire might occur. As other dangerous situations she drew – strong wind when an individual can be in a forest and can be hit by a falling down tree, and a storm which might be dangerous if an individual hides under a tree and the tree might get stricken by lightning. R3 also considers boiling water dangerous based on her personal experience when she burned herself with hot water whilst taking a shower.

In this case it was found out that R3 has a great awareness of the risks that precede an injury. Also from the following interview the above-average perception of risks was apparent, considering the low age of the girl. I believe that the way how her parents teach her on potential risks is of great importance.



Picture 3

### Respondent 4: a 15-year-old girl

(Veronika)

#### Casuistic

*Do you know anybody who has some persistent effects caused by an injury, or who even lost their life?* I personally do not have any friend who is disabled or has some persistent effects. I would feel very sorry for them.

Just one of my girlfriend experienced an injury... (silence)... it was on holidays and there were many versions of how this happened... She was crossing the track and had her earphones on, and she had a sister, they were twins, she was fifteen years old. Suddenly she tripped up and laid there, when a train appeared and ran her over, she died instantly. *Was her sister there with her?* There was a number of versions, some people said she was and some people she was not, so I do not know. *Do you think that she could have done anything to avoid this?* If she was not distracted or did not have her earphones on, or if she bypassed the track, all would have been better than this. I used to go that way myself but man realizes only when something serious happens. *If you know what happened to your friend would you cross the track there?* I am more scared about it. I would probably not go there now that I know what happened to her, her sister and parents went to pieces and one suddenly realizes how fragile life is...



Picture 4

#### Psychological assessment of the picture

The drawing is creative, rich; the girl expressed her idea and personal experience with danger.

She perceives danger and jeopardy as real for children (boys and girls) especially in the age of 13–15 years when their concern for game suppresses the actual danger.

R4 drew a picture of a playground which is in the proximity of a road for motor vehicles. R4 there explained the major problem of children's playgrounds should not be situated near roads. She believes that the major risk is if the balls gets on the road and children run to get it, and are too focused on the game to realize the risk of potential collision with a car. R4 said that the sports yards in the town she lives are situated in the proximity of a busy road and she further warned of an insufficient security of the playground with a low fence.

The picture was drawn based on assessing the risks in the environment she knew.

### Respondent 5: a 12-year-old girl

(Vendula)

#### Casuistic

*Can you tell me something about the picture you drew?* I drew drugs since once an individual starts he can never give up. And keeps spending money and ends up having nothing. There I drew blades when people cut their wrists. And then alcohol comes. People might get addicted to alcohol and die, that's how dangerous it is. And then cigarettes since people also get addicted to smoking. It is dangerous since one's life may be in danger. And then weapons, knife, so that they do not jeopardize their friends or hurt themselves.



Picture 5

**Psychological assessment of the picture**

A rich and accurate drawing of danger of an adolescent nature. Danger is highlighted with a skull which does not represent a symbol of labelling but in verbal context also an experienced danger.

R5 drew some situations which might be dangerous. She drew syringes and drugs, alcohol and cigarettes, then a pistol and a knife which might jeopardize one's life, and then she drew razor blades one can use to cut themselves. A symbol of skull with crossed bones dominates the entire drawing which symbolizes danger, since one can lose his life. The dominant of the drawing is mainly drugs, alcohol and cigarettes, these things she also mentioned most in her speech. Most likely it is due to the fact that R5 is currently in the age when they attend preventive projects about drugs and other addictive substances at school which was also confirmed during the interview. This, however, primarily affects and "suppresses" perception of risks in the issue of injuries.

**Respondent 6: a 8-year-old boy (Šimon)**

**Casuistic**

*Can you tell me something about the pictures you drew?* The first picture is dangerous because there is a railway track and pavements across, and then there are roads without traffic lights. There is not enough space for waiting. The train goes fast, the man can be run over by the train (he points at a character he drew), and also by the car. When the car goes and the pavement has no pedestrian crossing you have run it over fast and when you do not make it somebody is actually run over. The train is even worse since it goes much faster. As the train goes fast, and someone stands there, has no time to look round and the train runs him over. The second drawing is about getting lost in a forest. If one gets lost it is bad and he must do something to find a way out. Spend a night in dry moss and set off the next day. There are animals in the forest that may kill you. For example, there can be a boar, a bear or something like this. We do not feel the animals whilst we sleep, and they may hurt us. When the blood runs out of us, it can run out completely in a while and the faster we run the

more we get tired and when we get completely tired we fall down and stop breathing, there is no more blood. Then it is dangerous (describes the last picture) if we stand at the margin of a rock and the rock falls, there is a river under it, we may fall down to the river, the river takes us somewhere and we get drowned.

*Do you know what is injury?* Yes I do. Injury is when we get hurt somehow, we may trip up and hurt our leg. It happened to me last week, I cut myself with a hatchet (he pulls his trousers up and shows a scar on his left knee). Fortunately, it was quite blunt. *How did it happen to you?* I visited my friend and I was helping him with a garden, cutting out some branches and suddenly I chopped... the branch bent aside and I left my knee there and hit it directly. I have some scar there. I fall quite often (and he shows how he got scratched when running on grass). And once I slipped at the pool, there was spilled shampoo and water.



**Picture 6a**



**Picture 6b**

### Psychological assessment of the picture

The drawing is experienced, active, there is a real danger in it. Feelings of exposure are perceived through own accidents. A thoughtful kid.

R6 drew three situations he considered dangerous. The first drawing represents danger for pedestrians in form of a road and a railway. The next picture shows danger of getting lost in a forest in the night. On the last drawing he expressed a danger on a high rick when one can slip and fall down. Another risk was the river running under the rock to which one can fall and get drowned. He perceived this kind of risk based on his personal experience with falls.

Respondent 6 participated actively in the interview, it was apparent that he was very interested in this topic since he went through many injuries himself. During the interview he imitated some situations, he even showed his current and also former injuries (abraded knees, scratches, scars).

#### Respondent 7: a 12-year-old boy (Petr)

##### Casuistic

*Would you tell me something about the picture you drew?* I drew for example how I fall off a waterfall, and this is quite a danger. *Why is it dangerous?* Because if it is too high I can die. *What can happen to you if you fall?* I will die, break my leg, hand, brain concussion. (I point at the drawing and ask) *What is the red thing?* It is blood.

*Have you ever experienced any serious accident?* I think just once. I fell off a wall on a stone. *What happened to you?* My back hurt and I cried. The pain lasted about a day and then it was ok. *Has anything else happened to you?* I bit my lip. They had to stitch it. *How did this happen to you?* I fell of the stairs and bit my lip. *What could you do to avoid this?* Watch the floor.

### Psychological assessment of the picture

The drawing corresponds with the boy's own experience, he fell off the height and broke his lip. In the overall concept of the drawing one can sense anxiety (sketching, head first, projection of a fall, ...).



Picture 7

R7 drew a big rock and a waterfall, off which an individual is falling, and then he explained what the consequences of this could be. During the interview, R7 was calm and thoughtful. The drawing expresses relation to personal experience with falls he was telling us about.

#### Respondent 8: a 10-year-old boy (Dan)

##### Casuistic

*Can you tell me something about the picture you drew?* The man walks on the road and he thinks he can cross it even if the car is near. The car may hit him.

*Have you ever experienced any serious accident?* I can only remember one. We went shopping and I was putting my shoes on and putting my fingers into the doors, and my mum was in a hurry and she jammed my finger in the door (the boy showed me his right hand with an amputated part of the ring finger). This happened five years ago.



Picture 8

**Psychological assessment of the picture**

Danger is put additionally into the drawing (the boy drew a standard car and, to fulfil the instruction, added a character). The quality of the drawing does not correspond with the age, he was not concerned too much.

R8 drew a situation when a car is going fast and somebody is trying to cross the road. During the interview, R8 acted as an introvert a little, and his opinions were not well arranged. The drawing did not relate to the personal experience with perceiving a risk of an injury.



**Picture 9b**

**Respondent 9: a 8-year-old girl (Magda)**

**Casuistic**

*Would you tell me something about the picture you drew?* There is a monster on the first picture. On the second picture there is a girl who fell off her bike in a forest and it is getting dark. She is alone there, she broke her knee, got scratched and lost her shoes.

*Have you ever experienced an injury?*

Well... I fell off my bike many times and got scratched, nothing more.

*When you drive your bike, do you wear a helmet?* I do but sometimes I do not wear it. *Why don't you wear it?* Either I forget, or we cannot find it.



**Picture 9a**

**Psychological assessment of the picture**

The first drawing does not correspond with the task but is anxious almost horrifying (claws, teeth, hair, ...). It is most experienced of all

the drawings assessed. The second drawing is adequate to the age, the danger is real danger and experienced. The character shows pain.

On the first picture, R9 drew a “monster” which might jeopardize her. This picture did not seem too appropriate to me considering the situation we discussed, and so we asked R9 to draw one more picture whilst we specified what the drawing should relate to (a risk that might result in an injury or intoxication). On the second picture there was a little girl who fell off her bike and, on top of that, lost her shoes, and all this happened late in the night. The second picture she drew related to an actual experience of the respondent.

**Respondent 10: a 8-year-old boy (Martin)**

**Casuistic**

*Would you tell me something about the picture you drew?* There is a man who wants to cross the road when there is red on the lights and a car is coming. *What is dangerous*



about that? That he is not supposed to cross on red, when those cars have green. The cars may run him over.

*Have you ever participated in any project related to injuries and intoxication? No... (then he suddenly remembered) Oh yes, we actually had a lady from the police there. She said that in summer we should try water first, or that we should not play with ball near the road. And she also showed us handcuffs. Did you enjoy that and would you like to repeat it? Yes I did and she will visit us again at the end of the year.*



**Picture 10**

### **Psychological assessment of the picture**

He did not understand the task and connection. A standard picture of a boy drawing a car. The interpretation of the drawing is poor.

R10 drew a man trying to cross the road on red. R10 perceived a risk that one should not cross the road on red and, first of all, he may get hit by a car. R10 acted shy during the interview, he talked slowly but was capable of adequate communication. The picture he drew did not relate to his personal experience.

## **CONCLUSION**

The authors of the statement conducted a qualitative research of 10 children who experienced or witnessed an accident. The children talked about their experience and they also drew a picture.

Some drawings were tightly connected with the personal experience of the respondents with their own injuries. The respondents have sufficient level of knowledge in the area of injury and intoxication prevention principles, they are capable of perceiving the risks of these but, despite that, in certain situations they do not respect these principles and behave risky.

As is apparent from the study, experiencing an event of injury is individual and stays long time in one's memory. This work allows to look into the issue of injuries and intoxication through the children's eyes.

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