Fears in Adolescence

Radka Michalčáková, Lenka Lacinová,
Institute for Research on Children, Youth and Family,
Faculty of Social Studies, Masaryk University

Martin Jelínek
Institute of Psychology, Academy of Sciences of the Czech Republic

Abstract

Fear is a natural and useful companion of human beings throughout their whole lifespan. The study tries to map the fears of 15-year old adolescents. It is based on data collected as part of the ELSPAC project (European Longitudinal Study of Pregnancy and Childhood). On the basis of the "Cake of Fear" method, subjective responses about the contents of fears were collected. These contents were categorized into 19 general categories, which cover a wide range of the topic. With the number of fears ranging from 0 to 22, respondents reported 5.3 on average. The category Fear of losing someone, fear for somebody/something occupies first position, with fears related to death and concerns about friends and family being most prominent. Generalised fears are ranked second, noticeably represented with fears of failure and the future. The third largest category is the category of school-related fears. Differences in the incidence of fears are discussed regarding gender and developmental stage.

Keywords: fear, adolescence, gender, ELSPAC

INTRODUCTION

Development of the emotion of fear throughout a whole lifespan is very complex. Tracking the developmental trajectory of this basic emotion has been a challenge to researchers for years. The importance of research projects focussed on normative fears in childhood and adolescence lies, among others, in the possibility of providing information on developmental relations, frequency, intensity and
The experience of fear is influenced by many concurrent factors. Heredity is confronted with surrounding environmental influences as early as the prenatal period. After birth, the immediate influences of family and, subsequently, of a broader social environment start to increase. In general, it is the interaction of innate dispositions and environment in the perspective of development that determines how we experience fear, the ways we process it, and why we support specific sources of fear, while suppressing some other ones, irrelevant for development of fear in an individual context.

Throughout a lifespan, fear assumes different forms, with specific forms of fear associated with specific periods of development. Here we talk about development-related fears characterised by a sequence of specific fear forms and contents related to an individual’s confrontation with developmental tasks typical for a given developmental stage (Vavrda, 2000). In spite of the aforementioned universality regarding the prevalence and forms of those fears, it is still important to keep in mind that there is individual variability in the way they are expressed and dealt with, which results from the unique living conditions of each individual.

Emotional development in adolescence, in the course of which those above-mentioned development-related fears emerge, is known to be marked with one fundamental characteristic; in most areas of his/her life the adolescent goes through important life changes and events with an unusual degree of independence on his/her immediate environment that has never been experienced so far and that are experienced for the first time (Rosenblum & Lewis, 2003). Accumulation of developmental changes (evident in the somatic sphere, as well as in the development of cognitive abilities and in the field of close interpersonal relations, albeit within a broader social context) experienced by the adolescent is reflected in emotional experiences and conduct of adolescents. Historically, the period of adolescence has primarily been associated with phenomena relating to the emotional life of adolescents – namely increased intensity of emotions, their high lability, rapid changes of mood and predominantly negative valence of these emotions. The increase in incidence of conflicts between adolescents and their parents and the negative emotions related to those conflicts has recently been challenged (Macek & Štefánková, 2006) as typical concomitants of adolescence. However studies focused on everyday emotional experiences of adolescents prove that this period differs from the previous as well as from the following developmental stage, in dimensions of intensity, frequency and persistence of emotions (Larson, Csikzentmihalyi & Graef, 1980; Larson & Lampman-Petraitis, 1989) in terms of increased incidence and intensity of experienced emotions with negative valences. Due to many biological, psychological and social changes, the period of adolescence is marked by a lot of specific insecurities and ambivalences that support development of age-specific contents of fear. The greater part of this
research was conducted with the use of fear survey schedules (Gullone, 2000; Lane & Gullone, 1999). Fear Survey Schedule for Children-Revised has become the most commonly-used method of assessing developmental changes of fears (Ollendick, 1983). Westenberg, Drewes, Goedhart, Siebelink and Treffers (2004) suggest that the significant age-related decrease of fearfulness is connected with two developmental patterns in adolescence. While fears of physical danger and punishment decreased with age, social fears (fears of evaluation) increased with age. These results were consistent with conclusions of a study focussed on changes in social fears across childhood and adolescence. Social fears become more differentiated with age (Bokhorst, Westenberg, Oosterlaan & Heyne, 2008). Older boys and girls also reported more fears of aversive social events (Mellon, Koliadis, & Paraskevopoulos, 2004).

However, so far only a few studies have systematically explored fear development via free-response methods. Differences exist between self-generated fears and results yielded through fear survey schedules. The free-response way of obtaining data is adequate for a subjective reflection of fears and for content analysis (Lane & Gullone, 1999; Muris, Merckelbach, Meesters, & Van Lier, 1997).

**Aim**

The aim of this study is to determine the prevalence and describe contents of subjectively experienced fears of fifteen-year old adolescents.

**METHOD**

With respect to the aim of this study we decided to use a free-response method which in contrast to questionnaires, gives sufficient scope for subjectively experienced fears whose reporting corresponds with experienced frequency bound incidence of stimuli in everyday life (King et al., 1989; McCathie & Spence, 1991). Our choice of the method was inspired by a research project of M. Šimčáková (1999) who used a method based on naming contents of fears in a sample of early adolescents aged 11-14. The name of the method used was "Cake of Fear" (see also Michalčáková, Jelínek, & Lacinová, 2008). The children’s task was to record their responses into individual pieces of a circle.

The respondents participating in our research project were instructed to draw a circle on a blank sheet of paper (European A4 format) that would represent "the whole" of their fear. Then they plotted sectors dividing the "Cake of Fear" into a number of subjectively experienced fears and named each sector with the name of their particular fear. The total incidence of fears of each respondent was determined by adding up the sectors reflecting the individual contents of fears.
An example of Cake of Fears method

Figure 1. An example of Cake of Fear method (*From the largest sector clockwise; Darkness, Devil, Cock, Fire, Spiders, Snakes, Drugs, Bad People, Loneliness*)

Research sample

The sample consisted of 536 adolescents (49% of girls) enrolled in the ELSPAC study1 (European Longitudinal Study of Pregnancy and Childhood). Respondents were administered the method "Cake of Fear" at the age of 15 between April 2006 and June 2007.

The psychological research was carried out by the Institute for Research on Children, Youth and Family of the Faculty of Social Studies at Masaryk University in Brno (for details on the project, see Sejrková, 1999; Smékal, Lacinová, & Kukla, 2004; Smékal & Macek, 2002). Individual psychological assessments are conducted repeatedly once every 2-3 years and are focussed on important psychosocial characteristics. The employed method is part of a larger battery of tests comprising a questionnaire section (pen and paper, PC administration), and semi-structured interview with adolescent.

---

1 The ELSPAC project is an international, longitudinal epidemiological study whose aim is to identify contemporary risks to healthy and optimal development of the child, and to suggest how to prevent such risks. In the Czech Republic the project has been carried out by the Research Institute of Preventive and Social Paediatrics of the Faculty of Medicine at Masaryk University in Brno. That is the place where pediatric monitoring of the children and the questionnaire part of the survey took place, and where the whole organisation of the project is being managed.
Data processing and analysis

The number of fears reported within the "Cake of Fear" by girls and boys was compared using non-parametric methods (Mann-Whitney U test) as the data distribution was positively skewed.

Regarding the content of the data, we employed the following procedure: the obtained data on fears were categorized in a way comparable to procedures used in other research studies focussed on children’s fears (e.g., Kirmanen & Lahikainen, 1997). At first, the responses (2874 in total) were categorized according to their contents. The aim of the categorization was to eliminate formal differences in expressions of the same fear contents.

Next, the categories comprising fears with very tangible content (e.g., fear of tarantula, fear of zombie, fear of maths) were grouped into higher order categories comprising groups of similarly motivated fears – for instance, fear of spiders on this level already comprises fear of spiders in general, but also fear of tarantula, garden spider, trapdoor spider, etc. The total number of categories obtained in this way was 192. By merging those categories, we arrived at with 19 general categories of the highest level (3% of responses would not fit into any of the categories). When creating the categorization, we followed general rules on creating categories (Ferjenčík, 2000; Kerlinger, 1972). For each respondent, the occurrence of 19 categories was converted to a dichotomic scale that reflected whether a given category had or had not occurred among responses of a particular individual. Those 19 categories were later compared across gender using contingency tables and Pearson Chi-square. Due to multiple repeating of calculations the level of significance was corrected using Bonferroni correction. Therefore, in comparing categories across gender, the level of significance used was p < .0026 (.05/19).

RESULTS

The distribution of the number of fears clearly shows positive skewing. The number of fears ranges from 0 to 22. Respondents reported on average 5.30 fears (SD = 2.53; median = 5.00). The number of fears reported by girls ranged from 0 to 22. The mean number of reported fears was 5.70 (SD = 2.80; median = 5.00). The number of fears reported by boys of that age ranged from 0 to 12 fears with the mean being 4.80 (SD = 2.20; median = 5.00). There was a statistically significant difference between the number of fears reported by girls and boys (z = 3.67; p < .01), with boys reporting fewer fears than girls.
Description of general categories

1. School-related fears – the category comprises child fears relating to school (e.g., marks, tests, essays, teachers, subjects).

2. Fear of animals – the category comprises fears of animals in general, listing of individual species, possible fears of being attacked by an animal.

3. Fears of general danger – the category comprises fears of dangerous situations, which by their nature not only threaten the child as such, but also have a global impact; in our results we distinguish between data regarding danger caused by human factor (e.g., terrorism, war), and disasters and phenomena of natural origin (e.g., floods, earthquakes).

4. Fears of losing someone, fear for somebody/something – the category comprises fears of losing somebody/something that children have a positive relation to; it includes fears for persons from the immediate social environment (family, friends) – fears of losing them, separating from them, and/or fears for their safety; the category also includes fears related to losing one’s own existence and existence of significant others.

5. Fears of being endangered by others – the category comprises fears of various persons and their actions; further in the text we also present separated results for persons familiar to the child (e.g., parents, relatives) and person who are unfamiliar to him/her (e.g., burglars, violent people, murderers).

6. Fears relating to specific places, ways of living – group of fears relating to specific places (e.g., cemetery, loft) and their characteristics (e.g., height, depth) that children evaluate as unpleasant and threatening (e.g., to be in the dark, alone).

7. Fears for health and body, fears of unpleasant bodily sensations – the category comprises fears for one’s own health, and so-called "medical fears" – these are fears associated with unpleasant bodily sensations relating to illness, injuries and their medical treatment (e.g., doctors, injections); the category also includes fears of various diseases or handicaps.

8. Generalised fears – the category comprises fears reported in most general terms; it also includes fears of development and the future (e.g., responsibility, nihility, occupation, adulthood).

9. Imaginary fears – the category comprises fears of non-existent, supernatural beings, and phenomena that are subjectively threatening (e.g., spectres, ghosts, curses).

10. Fears mediated by media – a category of fears resulting from pictures of reality or fiction performed by media (e.g., horror, films, books).

11. Fears of one’s own inadequacy – category of fears resulting from feelings of one’s own incompetence, lack of self-confidence and insecurity in coping with situations, and fear of results that might be brought about by his/her behaviour.
(e.g., fear that "I may not cope with something", "may be awkward", "may bring about something wrong", "may not be good enough").

12. Traffic-related fears – fears related to means of transport, traffic and transportation technologies (e.g., fear of cars, crashes).

13. Fears of punishment – the category comprises fears related to punishments and bans imposed on the child (spanking, PC games ban).

14. Fears of objects, substances or their attributes - the category comprises fears of subjectively dangerous objects (e.g., sharp objects), substances (e.g., drugs) or their attributes (e.g., toxic substances).

15. Sleep fears - fears related to sleep and dreams (e.g., nightmares).

16. Fears of new situations – fears relating to new situation, activities and environments that the child has not encountered before (e.g., new things, situation that I don’t know).

17. Fears of sports – group of fears related to sports and sporting activities (e.g., skiing).

18. Fears of losing one’s way, of getting lost – the category comprises fear of potentially endangering situations of getting lost and straying into both a familiar and unfamiliar environment.

19. Fear of unfulfilled wishes – fears related to concerns that desirable projections and wishes would not be fulfilled (e.g., "I will not get a present").

The content of fears which did not fit into any of these categories were vague and unclear (e.g., fear that snails would return to the aquarium, common town elements).

Within the period under consideration the category Fears of losing someone, fear for somebody/something occupies the first position, with fears related to death and concerns about friends and family being conspicuous (Table 1). Generalised fears rank in second position, noticeably represented by fears of failure and the future. The third largest category is the category of school-related fears, represented, in the first place, by fears of transition to a higher level of education and entrance exams, and also by fears of marks and school reports. Next position is occupied by fears related to specific places, ways of living, by fear of the dark strikingly common. Fears of animals are the fifth most commonly reported group of fears. Fears of spiders and snakes can be found among typical fears of that category. The sixth largest category comprises fears of being endangered by others, with most respondents reporting fear of criminals and violent people. The last general category to have exceeded 30% comprises fears for health and body, fears of unpleasant bodily sensations. Fears of illness, injury and physical harm were among the most frequently reported. Other categories listed in the table represent less frequent, yet important groups of fears of fifteen-year old respondents, providing information on diversity and scope of the issue.
Prevalence of general categories in fifteen-year old respondents

*Table 1. Prevalence of general categories*

<table>
<thead>
<tr>
<th>Order</th>
<th>Category Name</th>
<th>Children %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fears of losing someone, fear for somebody/something</td>
<td>63.21</td>
</tr>
<tr>
<td>2.</td>
<td>Generalised fears</td>
<td>53.77</td>
</tr>
<tr>
<td>3.</td>
<td>School-related fears</td>
<td>52.83</td>
</tr>
<tr>
<td>4.</td>
<td>Fears relating to specific places, ways of living</td>
<td>36.42</td>
</tr>
<tr>
<td>5.</td>
<td>Fear of animals</td>
<td>35.66</td>
</tr>
<tr>
<td>6.</td>
<td>Fears of being endangered by others</td>
<td>33.40</td>
</tr>
<tr>
<td>7.</td>
<td>Fears for health and body, fears of unpleasant bodily sensations</td>
<td>30.38</td>
</tr>
<tr>
<td>8.</td>
<td>Fears of one’s own inadequacy</td>
<td>23.21</td>
</tr>
<tr>
<td>9.</td>
<td>Fears of general danger</td>
<td>12.83</td>
</tr>
<tr>
<td>10.</td>
<td>Fears of new situations</td>
<td>9.81</td>
</tr>
<tr>
<td>11.</td>
<td>Traffic-related fears</td>
<td>5.47</td>
</tr>
<tr>
<td>12.</td>
<td>Fears of punishment</td>
<td>4.72</td>
</tr>
<tr>
<td>13.</td>
<td>Fears mediated by media</td>
<td>4.53</td>
</tr>
<tr>
<td>14.</td>
<td>Fears of objects, substances or their attributes</td>
<td>3.96</td>
</tr>
<tr>
<td>15.</td>
<td>Imagination fears</td>
<td>2.83</td>
</tr>
<tr>
<td>16.</td>
<td>Fear of unfulfilled wishes</td>
<td>2.64</td>
</tr>
<tr>
<td>17.</td>
<td>Sleep fears</td>
<td>1.51</td>
</tr>
<tr>
<td>18.</td>
<td>Fears of sports</td>
<td>0.94</td>
</tr>
<tr>
<td>19.</td>
<td>Fears of losing one’s way, of getting lost</td>
<td>0.57</td>
</tr>
</tbody>
</table>

Prevalence of general categories in fifteen-year old respondents by sex

*Table 2. Prevalence of general categories in fifteen-year old respondents by sex*

<table>
<thead>
<tr>
<th>Category Name</th>
<th>Girls %</th>
<th>Boys %</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fears of losing someone, fear for somebody/something</td>
<td>66.92</td>
<td>59.63</td>
<td>3.03</td>
</tr>
<tr>
<td>Generalised fears</td>
<td>60.77</td>
<td>47.04</td>
<td>10.05**</td>
</tr>
<tr>
<td>School-related fears</td>
<td>51.92</td>
<td>53.70</td>
<td>0.17</td>
</tr>
<tr>
<td>Fear of animals</td>
<td>47.31</td>
<td>24.44</td>
<td>30.18**</td>
</tr>
<tr>
<td>Fears relating to specific places, ways of living</td>
<td>41.92</td>
<td>31.11</td>
<td>6.69*</td>
</tr>
<tr>
<td>Fears of being endangered by others</td>
<td>38.46</td>
<td>28.52</td>
<td>5.89*</td>
</tr>
<tr>
<td>Fears for health and body, fears of unpleasant bodily sensations</td>
<td>30.77</td>
<td>30.00</td>
<td>0.04</td>
</tr>
<tr>
<td>Fears of one’s own inadequacy</td>
<td>27.31</td>
<td>19.26</td>
<td>4.81*</td>
</tr>
<tr>
<td>Fears of new situations</td>
<td>11.92</td>
<td>7.78</td>
<td>2.57</td>
</tr>
<tr>
<td>Fears of general danger</td>
<td>7.31</td>
<td>18.15</td>
<td>13.92**</td>
</tr>
<tr>
<td>Fears mediated by media</td>
<td>6.15</td>
<td>2.96</td>
<td>3.12</td>
</tr>
<tr>
<td>Traffic-related fears</td>
<td>5.38</td>
<td>5.56</td>
<td>0.01</td>
</tr>
<tr>
<td>Fears of objects, substances or their attributes</td>
<td>4.23</td>
<td>3.70</td>
<td>0.10</td>
</tr>
<tr>
<td>Fears of punishment</td>
<td>3.85</td>
<td>5.56</td>
<td>0.86</td>
</tr>
<tr>
<td>Fear of unfulfilled wishes</td>
<td>3.08</td>
<td>2.22</td>
<td>0.38</td>
</tr>
<tr>
<td>Imagination fears</td>
<td>2.69</td>
<td>2.96</td>
<td>0.04</td>
</tr>
<tr>
<td>Sleep fears</td>
<td>1.15</td>
<td>1.85</td>
<td>0.43</td>
</tr>
<tr>
<td>Fears of sports</td>
<td>0.77</td>
<td>1.11</td>
<td>0.17</td>
</tr>
<tr>
<td>Fears of losing one’s way, of getting lost</td>
<td>0.00</td>
<td>1.11</td>
<td>2.90</td>
</tr>
</tbody>
</table>

*p < .05    **p < .01
The biggest difference between boys and girls was found in the category fear of animals (Table 2). Girls reported this fear more frequently than boys. Other differences between girls and boys can be found in the category of generalised fears, with these fears being reported again more frequently by girls and in the category fear of general danger, this time with fears being reported more frequently by boys.

In the category fears of one’s own inadequacy, girls reported this type of fear more frequently than boys; however, the difference has not reached the significance level corrected for multiple comparison tests (p < .0026, see Method) and thus the results must be interpreted as mere indications of tendencies.

DISCUSSION

As shown from our findings, emotion of fear represents an important component of adolescents’ inner experiential world. As regards the number of reported fears, we have found that girls reported a higher number of fears compared to boys. The vast majority of research studies confirm the influence of gender on frequency and intensity of subjectively experienced fears. It has usually been found that girls reported a higher number and intensity of fears compared to boys (Burnham & Gullone, 1997; King et al., 1989; Muris & Ollendick, 2002; Slee & Cross, 1989; Vulić-Prorić, 2002). However, there are also research studies disputing those conclusions (e.g., Derevensky, 1974; Kirmanen & Lahikainen, 1997). Nonetheless, repeatedly confirmed findings on a higher number and intensity of fear in girls do not sufficiently prove that girls are endowed with greater fear reactivity (Gullone & King, 1997). As for the analysis results regarding the number of fears, it must be noted that the variable under consideration, i.e. the number of fears reported in the open-response method, in our case the "Cake of Fear", quite necessarily does not solely reflect the prevalence of fears in a respondent’s life, but is also contaminated with other factors. Those factors may include, for example, the level of verbal fluency, achievement motivation, the readiness to comply with examiner’s requirements, or the level of cognitive abilities (King et al., 1988; Michalčáková, 2007). For this reason, if an open-response method is employed, the information on the contents of experienced emotions are supposed to be more valuable than the data on the number of fears.

The analysis of the reported fears shows that the contents of this emotion can vary widely in the period of adolescence. The most commonly reported fear of fifteen-year old respondents was related to loss of someone, fear for somebody/something. Due to her/his maturing mental functions, the adolescent is able to understand a threatening situation better than before, and he/she can also anticipate it. The ability to make hypotheses about potential threats to oneself and to significant others can bring about deeper reflections and contemplations of
vulnerability or mortality. Among the factors that may add to the higher prevalence of this category, is the fact that the fifteen-year old adolescent is already able to think within the context of a completed concept of death and that the separation-individuation process is just about to be complete. Death, as a symbol of definitive separation, represents an important topic which is the focus of the adolescent. On the level of behaviour, we can observe coping strategies serving adolescents to control the increase of fears with the content of death – distance, devaluation with humour, cynicism, provocation, hazardous games, etc. Idealization and mythicism of death can be another strategy that is reflected in increased frequency of highly spiritualized philosophical discussions on the meaning of life and death (Orbach et al., 1993). An important representative of that category is the fear of death, fear of losing a significant other and fears for family. Similarly, the research study of Lane and Gullone (1999) presented frequent prevalence of fear of death or death of a family member found in adolescents, both girls and boys. An important circumstance which may also contribute to prevalence of this kind of fear is the increasing probability that an adolescent might experience death in her/his immediate environment (e.g., death of a grandparent). Within this category, we have observed specifically marked prevalence of fears related to friends and friendships of adolescents. The content of fears expressed concerns the possible loss of friends. The importance of friends for adolescents in the shadow of those fears entirely corresponds with developmental characteristics of the period under consideration. The importance of peer group grows stronger while the process of gradual separation from family continues. For the adolescent of this age, the peers represent an important identification group. An increase in time spent together with friends provides fulfilment of important needs; adolescents also acquire necessary social competences and experiences (Larson & Richards, 1991). "Having no friends" is also an important criterion in social evaluation of the adolescent and his/her acceptance by others.

The second most commonly identified category is the group of so-called generalised fears. Frequent occurrence of fears belonging in this category corresponds with development of cognitive processes in the period under observation and with overall psychosocial development. Thinking is not bound to concrete reality any longer as it was in the previous periods. From now on, the adolescent can make hypotheses and think about possible alternatives, he/she is able to think systematically and to generalise (for example, categories like fear of nihility, ignorance, or responsibility can emerge now). This group of fears clearly shows the basic developmental tendency of children’s fears, i.e. a gradual shift to general and abstract contents that may not represent reactions on immediate stimuli coming from the environment. The cognition of the adolescent in this period of development reaches a stage where he/she can reflect on multiple meanings and subjectivity of opinions, attitudes, and facts.
On the level of emotional experience, it means the onset of so-called cartesian anxiety characterised by feelings of loneliness, isolation, loss of definite rules and unambiguity of the surrounding world. Adolescents must create strategies for coping with relativity and subjectivity of cognition and learn to regulate anxiety and other negative emotions related to this entirely new knowledge (Bernstein, as cited in Rosenblum & Lewis, 2003). Another sign of an adolescent way of thinking is the extension of time perspective. The adolescent is able to realistically consider his/her future options – prospectively oriented general ideas and concerns, e.g., fear relating to the future, adulthood, future occupation and work or family make up important components of this category. The increase of future oriented fears in older children has been confirmed, among others, by research studies of King et al. (1989) or Bauer (1976). Šimčáková (1999) arrived at a similar conclusion in our environment when she found an increase of those fears in Slovak children aged between 11 and 14.

We have found that in the period under observation there is a higher prevalence of generalised fears in girls compared to boys. Considering the character of this kind of fears we can presume that the higher prevalence in girls may be partially attributed to biological factors, which lead to many empirically proved differences in specific cognitive functions, and also socialization factors (Halpern, 2000), with traditional upbringing of girls being oriented mostly on care for others, relationships, and so on. These influences can contribute to the evolution of holistic thinking, traditionally assigned to women, which is reflected in a higher prevalence of the general character fears.

School-related fears were identified as the third most common in our survey. Generally speaking, a high prevalence of these fears in children of school age has been presented in other studies, too (e.g., Silverman et al., 1995) and is considered to be typical in older school-age children.

We have found that the group of fears related to school performance and its assessment dominated this area of fears. Hejlová (2005) arrived at similar conclusions in the Czech environment when she found that among the most common school-related fears were fears of getting a bad mark, fears of failure, mistakes, ignorance, and also fears of punishments, exams, and dictations. Studies monitoring the prevalence of school-related fears from the developmental perspective have found an increase of these fears during childhood and adolescence (Gullone & King, 1993; King et al., 1989). In our country, M. Vágnerová (1997-98) arrived at the same conclusions in her screening study. She found a significant increase of fears related to school, failure and bad marks in groups of children aged 7 - 10 and 11 – 15. The prevalence of school-related fears in this period may be due to many varied factors. For adolescents, the status of school changes in this period – the school starts to play an important role in the process of self-realization as the need to compare oneself with others is growing; school achievement becomes a significant component of self-esteem. Due to further development of cognitive
functions, the adolescent is able to associate his/her school performances with personal prospects, which in the context of the oncoming topic of occupational choice, also enhances the importance of the school in a young person’s life.

Increasing difficulty and rigour of the curriculum may also play an important role. We must also consider the general characteristic of our sample as another possible factor. The sample was made on children of parents who have been participating on longitudinal research for 15 years. The majority of these parents achieved a university degree, so we can assume that they put emphasis on their children’s school achievement and on the value of education in general.

Another specific category where boys were found to differ from girls is the fears of animals category. Boys reported these fears less frequently than girls (difference of 23%). This tendency has been reported in other research studies, too, and not only as a tendency occurring in childhood and adolescence (e.g., Bamber, 1974; Gullone & King, 1993), but also in adulthood (Liddell et al., 1991). Now, the question is whether those findings actually prove greater timidity of girls. On the basis of findings presented in studies dealing with the issue of gender role influence on assessment and evaluation of one’s fears (e.g., Pierce & Kirkpatrick, 1992) we can presume that social acceptability of different behavioural patterns traditionally regarded as either masculine or feminine may significantly bias what people say about their own fears, especially in the case of fears belonging to categories that are clearly gender-role stereotypized. Thus, the more frequent prevalence of animal fears in girls is not a sufficient indicator of greater fear reactivity of girls (Gullone & King, 1997).

Many research studies agree on the first two positions in the animal fears category which is occupied by spiders and snakes (Lane & Gullone, 1999; Muris et al., 1997; Muris et al., 2000). These two contents of fears have been amply represented in our results, too. We can suppose that in the background there is a phylogenetically rooted and biologically "wired" setting of emotion of fear relating to certain characteristics perceived as potentially dangerous for man (e.g., speed, unpredictability, abruptness of movements, dissimilarity and oddity in comparison with a form known to man (Bennett-Levy & Marteau, 1984) that endow some stimuli with a higher potential to elicit fear. Research studies on the subject confirm there is a biological predisposition to perceive some characteristics as significantly threatening, and, especially in the case of spiders and snakes fear the studies demonstrate how easy it is to learn it, compared to other, neutral stimuli (e.g., mushroom, flowers Frederikson & Öhman, 1979, in Öhman & Mineka, 2003; Sundet et al., 2003).

Girls also reported fears of being endangered by others more frequently than boys. We assume this is influenced by differences in the socialization process with special regard to gender related conventional child-rearing practices. Parents often tend to warn their adolescent daughters against the potential threat of unknown or bad people. Girls were more likely to be supervised then boys. Gender differences
were marked for perceived parental control (more systematic among girls than boys) (Chouquet, Hassler, Morin, Fallisard & Chau, 2008).

Another category that showed a significant difference between boys and girls comprises fears related to situations of potential threats not solely affecting the respondent alone and her/his immediate environment, but one with broader, possibly global implications.

This fear was more frequently reported by boys. The most frequently reported fear of all concrete fears within General danger fears group is the fear of war. War-related fears in adolescent boys and girls have been reported also by other research studies (e.g., Lane & Gullone, 1999). We suppose that the more frequent prevalence of fear of this kind may be due to boys’ affinity to issues of war, fights, terrorism represented in films, documents, computer games, and so on. This preference is in accordance with the stereotypized male role, and more frequent contact with these issues presumably contributes to higher availability of those fearful stimuli found in boys’ subjective reports.

CONCLUSION

Our findings allow us to confirm validity of the tool we employed; the tool makes it possible to show the whole range of subjectively experienced fears in the given period of development. The frequency and prevalence of the individual fear categories illustrate the period of middle adolescence compatible with general characteristics of cognitive, emotional and social development. It also provides evidence of a broader environmental influence and depicts the historical and social context of the era in which the adolescents are becoming adults.

REFERENCES


Šimčáková, M. (1999). *Strach u detí (Prieskum o strachu detí v staršom školskom veku) [Children's fears; the research on older school age children's fears]*. Contribution presented on Conference Social climate influence on child personality, Bratislava.


