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Behavioural problems in adoptees from Eastern Europe

Turbe comportamentali nei bambini adottati dall'est europa

F. CATALDO, V. PORCARI[1], F. CANZIANI[1]
Section of Paediatrics, Department Materno-Infantile, University of Palermo; [1] Section of Paediatric Neuropsychiatry, Department Materno-Infantile, University of Palermo

Summary

Objectives. The aim of the present study was to evaluate the prevalence, clinical features and environmental risk factors of behavioural problems among adoptees coming to Italy from Eastern Europe.
Methods. Forty-six internationally adopted children from Eastern Europe were evaluated at their placement in a family and during the following 12 months. Predefined and semi-structured interviews regarding the adoptive parents' socio-demographic status, children's pre-adoptive living conditions and their behaviour following adoption were performed. Parents also compiled the Child Behaviour Checklist, while the behaviour of the adoptees during play were observed by mental health professionals.
Results. Adoptive parents were mainly middle-aged, financially stable and with a middle to high level of education. Thirty out of 46 (65.2%) adoptees exhibited internalized and externalized behavioural problems at arrival. Girls were more problematic than boys, with a prevalence of externalized behaviours. Behavioural problems were mainly related to emotionally and environmentally deprived conditions of pre-adoptive life, a longer time spent in an orphanage, age at removal from the biological families and age at adoption. During the follow-up period many behavioural problems decreased, but others became manifest.
Conclusions. Paediatricians must be aware of behavioural problems among internationally adopted children and of the related environmental risk factors. Pre-adoptive preventive-educational and post-adoptive managing-educational services for appropriate emotional counselling to international adoptees and their parents are needed.

Riassunto

Obiettivi. *L'obiettivo di questa indagine è valutare la prevalenza, gli aspetti clinici ed i fattori di rischio ambientali dei disturbi comportamentali nei bambini giunti in Italia per adozione internazionale dall'Est Europa, sia all'arrivo che nei successivi 12 mesi.*
Metodi. *Lo studio ha riguardato 46 bambini adottati dall'Est Europa al loro arrivo in Italia e nei successivi 12 mesi. Ai genitori adottivi è stato somministrato un questionario predefinito e semi-strutturato nel quale sono state chieste notizie riguardanti le loro condizioni socio-demografiche, le condizioni di vita dei bambini nel Paese di origine, ed i comportamenti di questi ultimi dopo l'adozione. I genitori adottivi compilavano anche il Child Behaviour Checklist, mentre le attività ludiche e comportamentali dei bambini venivano valutate in incontri individuali.*
Risultati. *I genitori adottivi erano prevalentemente di media età, avevano una condizione finanziaria stabile ed un livello di istruzione medio-alto. 30/46 bambini all'arrivo in Italia presentavano disturbi "internalizzati" e "esternalizzati", con una prevalenza di questi nelle bambine che peraltro apparivano più problematiche dei bambini. Tali disturbi sono apparsi correlati alla deprivazione affettiva della vita pre-adottiva, al più lungo tempo trascorso in orfanotrofio ed all'età di allontanamento dalla famiglia di origine. Durante il follow-up molti di questi disturbi scomparivano, mentre ne comparivano altri.*
Conclusioni. *I Pediatri debbono tener presente che i bambini adottati all'estero costituiscono una popolazione con turbe comportamentali legate a specifici fattori di rischio ambientale. Essi debbono quindi essere pronti ad interventi di sostegno psicologico, sia preventivi prima della adozione che terapeutici dopo l'adozione, da effettuare in centri appositamente dedicati a questi bambini ed ai loro genitori.*

Key words

International adoptions • Behavioural problems

Parole chiave

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Correspondence:
Prof. Francesco Cataldo
Dipartimento di Pediatria
Ospedale "Aiuto Materno"
via Lancia di Brolo 10/B
90135 Palermo, Italy
Tel./Fax +39 091 6834121
E-mail: cescocat@freemail. it

In recent years, international adoptions have been on the increase worldwide, involving more than 40,000 children a year [1]. This phenomenon has also been observed in Italy [2]: the number of international adoptions was less than 350 in 1982, whereas between 1 Jan. 2001 and 30 June 2006 14,432 children were adopted from abroad (1,797 in 2001, 2,225 in 2002, 2,772 in 2003, 3,403 in 2004, 2,840 in 2005 and 1,449 in the first six months of 2006). In addition, there has been a marked change in the distribution of the native countries of the children adopted by Italian families in the last few years: up to 1990 international adoptions involved mainly Brazil, Chile and India, whereas recently the main native countries have been Eastern European ones [2 3].

Upon arrival, inter-country adoptees may have many health problems. They usually had lived in orphanages before adoption-often overcrowded, with poor standards of hygiene and inadequate nutrition; upon arrival they often present reduced immunization status or infectious diseases endemic in their native countries [3 4]. In addition to these specific medical conditions, recent European and non European studies [2 5 9 13 14 16 17 19 21 22 25 28 29 31 33] have shown that internationally adopted children on their arrival and in the initial post-adoption phase may have developmental and behavioural problems (cognitive and language delays, social-emotional problems, learning disabilities, attention-deficit disorders, etc.). This is especially true whether they come from institutional settings with a long stay in an orphanage – where affective deprivation and possible maltreatment are not uncommon [6 8 9 10 13 14 19 34].

International adoptees may also be at higher risk of psychological problems during adolescence, such as depressive disorders, suicidal attempts or deaths due to suicide, alcohol and drug abuse, conduct disorders [20-22].

In Italy, to the best of our knowledge, there have been no studies on the developmental and behavioural problems of internationally adopted children on their arrival and during the following 12 months. The purposes of this study were to investigate the prevalence and clinical features of behavioural problems in adopted children from Eastern Europe on arrival and during their first year of placement in adoptive families, and to investigate some of their environmental risk factors. A greater knowledge of behavioural problems of inter-country adoptees and their environmental risk factors will greatly contribute to help these children, their adoptive parents and paediatricians working with them.

Materials and Methods

Forty-six internationally adopted children (25 boys and 21 girls, mean age 7 years and 9 months, range 10 months-12 years and 6 months) were consecutively recruited from 1 Jan. 2005 to 31 Dec. 2005 in the International Adoption Centre of our Department. All of them came from Eastern Europe Ukraine (25), Former Soviet Union (10), Poland (4), Hungary (3), Bulgaria (2) and Romania (2).

These children were referred to our Department by their adoption agencies and by the Juvenile Law Court of Palermo for health check-up. Each child underwent a complete physical examination comprising anthropometric measurements (length, weight, head circumference), specialist consultations (otolaryngologists, ophthalmologists, orthopedist, dermatologist, etc.) if needed, and laboratory testing according to Gruppo di Lavoro Nazionale per il Bambino Immigrato (GLNBI) affiliated to the Italian Society of Paediatrics [35]. They were seen at our Centre on their arrival in Italy (within 4-6 weeks); our investigation also included a behavioural evaluation. None of the inter-country adoptees had been referred to our Department for known psychological, developmental or psychiatric disorders.

Thirty-four adoptive families were recruited for our study; 31 of them had only adopted children (22 families one child, 7 families two biological siblings, 1 family three biological siblings, 1 family two non-siblings). The remaining 3 adoptive families had both biological and adopted children (1 family had three adopted children and one biological child, 2 families had one adopted child and two biological children).

Each family was evaluated in three sessions. During the first session the examiner, through the same semi-structured and predefined questionnaire, asked each couple of parents for information regarding their socio-demographic status (age, level of education, employment, socio-economic status), their adoptive experience and the children's pre-adoption history, focussing on the pre-adoptive conditions they had observed in the children's native countries or those reported in the pre-adoptive records, and on how complete was the pre adoption history (parents' medical history; gestational age; weight, height and head circumference at birth; Apgar score; children's medical history before adoption; age and reasons for the children's removal from their biological families; age at adoptive placement; time spent in an orphanage before adoption and details about the orphanage i.e. number of peers cohabitating, organization of daily activities, number of adult educators, sharing of toys and clothes, hygienic conditions and dietary habits). During the same session, signs of maltreatment or sexual abuse were also investigated.

During the second session, each couple of parents answered the examiner's open-ended questions. The questions focussed on the actual functioning (play, sleep, eating, hygiene), expressed emotions and behaviour of the child within the adoptive society and family since the time of adoption. The children's relationships and attachments to each member of the adoptive family, as well as their behaviour and relationships with schoolmates or peers, were investigated. At the end of the second session the Achenbach "Child Behaviour Checklist" (CBCL) questionnaire [23] was given to parents, who were asked to complete it and return it at the next session. The aim of the CBCL was to obtain standardized reports from the parents regarding the children's competences and behavioural/emotional problems. The reports were compared with the information

and impressions previously gained directly from interviewing the parents.
The third session was usually an individual meeting with the adopted child. During this session the child was allowed to freely interact with the examiner, and to play and draw. In this session, the examiner had the opportunity to evaluate the behaviour and reactions of the child during his separation from and reunion with his adoptive parents; the mimic, verbal and non-verbal communication; type and contents of his play and drawings; organization of thoughts; time and space orientation; judgment and critical thinking; fine and gross motor skills.
Adopted children were seen at 6 and 12 months after the third session, and none of them was lost at follow-up.
The rates of behavioural problems, both on arrival and at follow-up, were related to the children's age at placement and time spent in orphanage. The chi squared test with Yates' correction or the Fisher exact test were used for statistical analysis. p values were calculated using the two-tailed test, and significance was measured at $p < 0.05$ level.
The study was approved by the Ethics Board of our Department, and informed consent was obtained from all parents.

Results

Socio-demographic status of adopting families and children's pre-adoptive histories.

Mean age of the adoptive parents at adoption was 42 years (mothers) and 46 years (fathers). The family structure was always a two-parent household and all the parents were in their first marriage. The majority of the families studied (29/34, 85.3%) had a college education and came from middle (14/34, 41.1%) or medium-high (15/34, 42.8%) socio-economic levels. Thirty-three out of 34 adoptive families had tried both national and international adoption (usually international adoption as second choice when national adoption proved unsuccessful). Only one family had chosen international adoption directly.
The children of our study came from a total of 39 biological families. Twenty-nine out of 46 (63%) had been taken away from their biological families before 3 years of age, with boys more often at an earlier age (1-3 years; 18/25, 72% boys and 11/21, 52.3% girls), and in pre-school age (3-6 years; 6/25, 24% boys and 3/21, 14.2% girls). Consistent with this data, the percentage of girls taken away from their families at an older age (school age) was higher than the percentage of boys (girls 7/21, 33.3% and 2/25, 8% boys).
Medical records from birth countries were available for all the children studied. However, they were not complete in many cases: the background concerning heredity and parental medical problems were always missing; gestational age, birth weight and height were reported respectively in 14/46, 15/46 and 16/46 cases (6 adoptees were born at the 8th month, 2 at 7th month and 3 were small for gestational age), birth head circumference was never referred, and Apgar score at birth was reported only in eighteen cases (thirteen had scores ≥ 8, five < 7). Information on the children's medical history after birth and before adoption was reported for 12/46 children only.
Growth delay (zeta score ≤ 2) for weight, height and head circumference was observed respectively in 9/46 (19.6%), 10/46 (21.7%) and 4/46 (8.7%) adoptees. Some of them had nutritional problems (iron deficiency anaemia 15/46, 32.6% and rickets 5/46, 19.9%), two had been sexually abused and one had been physically maltreated. None of them had neurological diseases or physical features suggestive of foetal alcohol syndrome.
Figure 1 shows the children's ages at adoptive placement. Boys were adopted at an early age more frequently than girls: 6/8 (75%) boys had been adopted at ages 1-3 years and 23/28 (60.7%) at ages 4-8 years, while 8/10 (80%) girls had been adopted at 9-12 years of age. Consistent with this data, there were three peaks (2, 5 and 7 years) where boys were mainly represented, and only one peak (10 years) in which girls were mainly represented.

Fig. 1. Children's age at adoption.

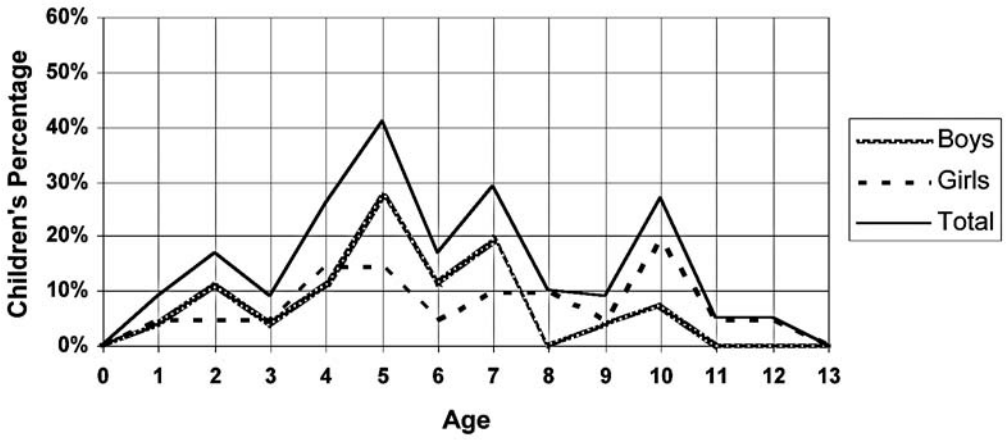


Fig. 2. Reasons of children's removal from their biological families.

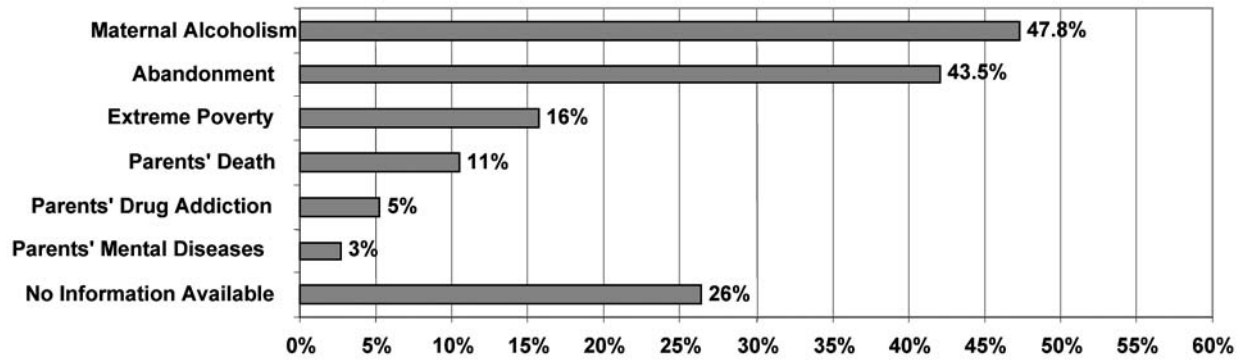


Figure 2 shows the reasons for the children's removal from their biological families, according to pre-adoptive records. Often there was more than one reason for the child's removal, the most frequent being maternal alcoholism (22/46, 47.8%) and abandonment during the first year of life (20/46, 43.5%).

The majority of the adopted children (44/46) had been in an orphanage before adoption: 6/46 in 2 or 3 different orphanages, 35/46 in one orphanage, 3/46 had been in foster families before being placed in an orphanage. Only 2/46 adoptees came from foster families.

According to the children's pre-adoptive records 29/44 (65.9%) of the adopted children during their life in an orphanage had cohabited with at least 100 other children, and 10/44 (22.7%) with more than 200 children. In the orphanages, children were grouped in dormitories according to age, and each dormitory usually included from 15 to 30 children. The ratio of adult educators to children was one to 10/15, and daily activities were organized in fixed routines, without considering individual and age-linked needs. Toys and clothes and even underwear were shared among children and consequently concepts like property and privacy were foreign to them. Hygienic conditions and dietary habits were poor in the orphanages: some children (8/44, 18.2%) on arrival presented with infectious dermatitis which may have been a consequence of inadequate hygiene, and dietary habits were mainly based on vegetable and beetroot soup, lacking meat, fish and fruit. In the orphanages there was a hierarchic order, so that older children commonly took care of the younger children. This happened with the agreement of the adult educators (too few to look after all the children, and often absent). In some cases (3/25 boys and 4/21 girls) physical maltreatment and sexual abuse were also referred. Except for the main holidays, when they were invited by voluntary foster families, children ate, slept, played and studied in the same place, spending most of the time within the institute's walls.

Fig. 3. Children's problems at their arrival in the adoptive families.

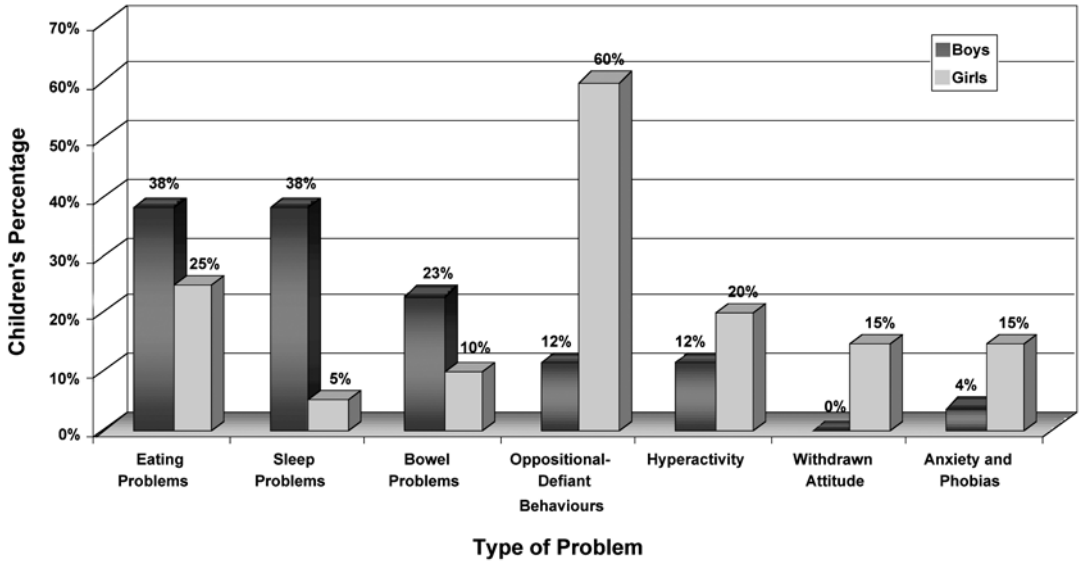
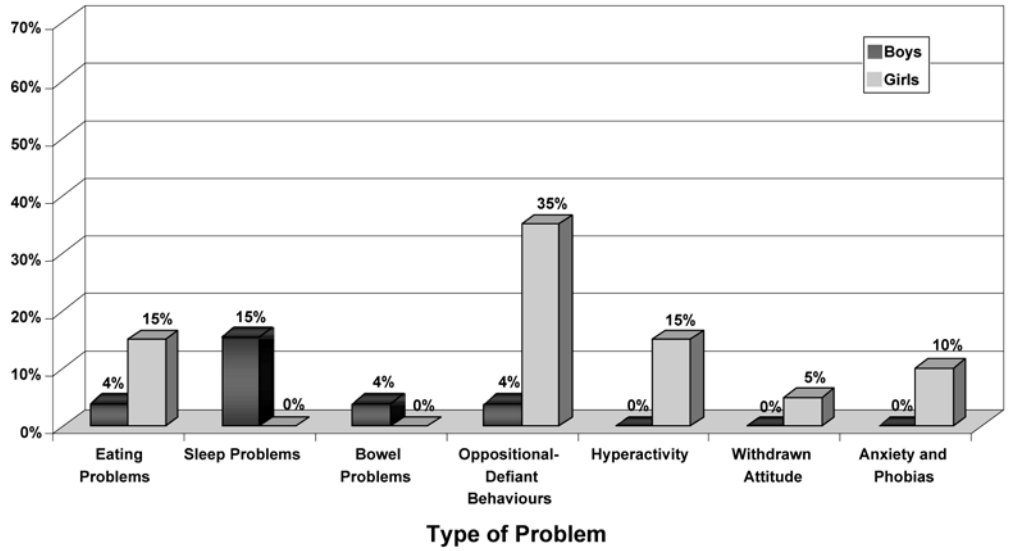


Fig. 4. Evolution of children's problems 6 months after their arrival.



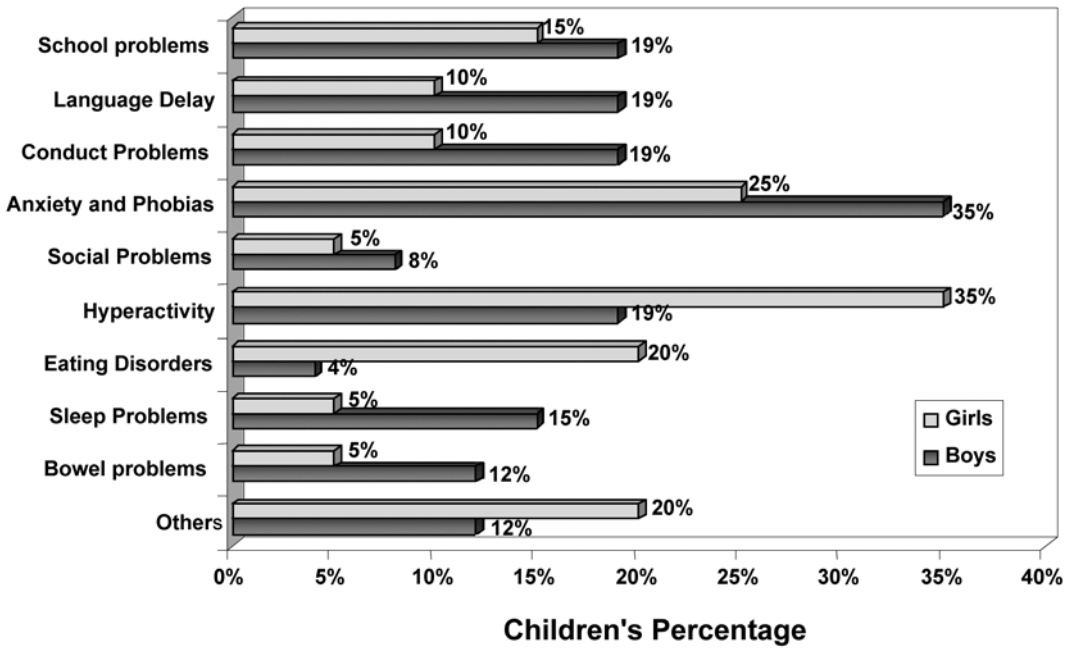
Only five children had been in foster families. Three of them had had an overall positive experience, while the other two had been sexually and physically abused by the foster parents.

Children's post-adoptive functioning and CBCL results

On arrival in our Department 30/46 (65.2%) children exhibited at least one of the behavioural problems listed in Figure 3, differently distributed among boys and girls. The former group had more internalized behavioural problems (eating, sleeping, and bowel controls problems), the latter mainly externalized behaviours (oppositional-defiant behaviours, hyperactivity, withdrawal, anxiety and phobias).

The prevalence of behavioural problems on arrival increased with the length of time spent in an orphanage: the rates of the adopted children with behavioural problems after 1, 2, 3 and more than 4 years of institutionalization respectively were 10% (3/30), 16.6% (5/30),

Fig. 5. Behavioral problems at follow-up.
Others = Post Traumatic Stress Disorders and sexual behaviours not appropriate for age.



33.3% (10/30) and 40% (12/30) (chi squared for trend 9.102; $p < 0.0026$). Also the prevalence of behavioural problems increased with age at adoptive placement: early infancy (< 2 years), preschool age (2-6 years) and school age (6-12, 5 years) rates were respectively 6.6% (2/30), 36.6% (11/30) and 56.6% (17/30) (chi squared for trend: 11.077; $p < 0.0009$).

Six months after adoption, in the children with behavioural problems on arrival there was an evident decrease in the problems (Fig. 4). In contrast, 12 months after their arrival 23/46 (50%) adopted children exhibited one or more new behavioural problems, such as hyperactivity, eating disorders (swallowing, chewing, regurgitation, rumination, bulimia, sleeping problems, constipation), phobias and anxiety (pavor nocturnus, separation-anxiety, panic attacks), Post Traumatic Stress Disorders (PTSD), hyper arousal, numbing, flashbacks, sexual behaviours inappropriate for age, school problems with learning disabilities and language delay (Fig. 5). These new behavioural problems were not related with the time children had spent in orphanage or age at adoptive placement (data not shown).

The analysis of CBCL/6-18 years showed that there was a high concordance of judgement between the parents as regards the same child. However, on the whole, girls were judged by both parents to be more problematic than boys in the majority of categories considered by the questionnaire, and both fathers and mothers prevalently referred attention problems as the most frequent concern, mainly among girls (Figs. 6, 7).

Fig. 6. Mothers' CBCL/6-18 results.

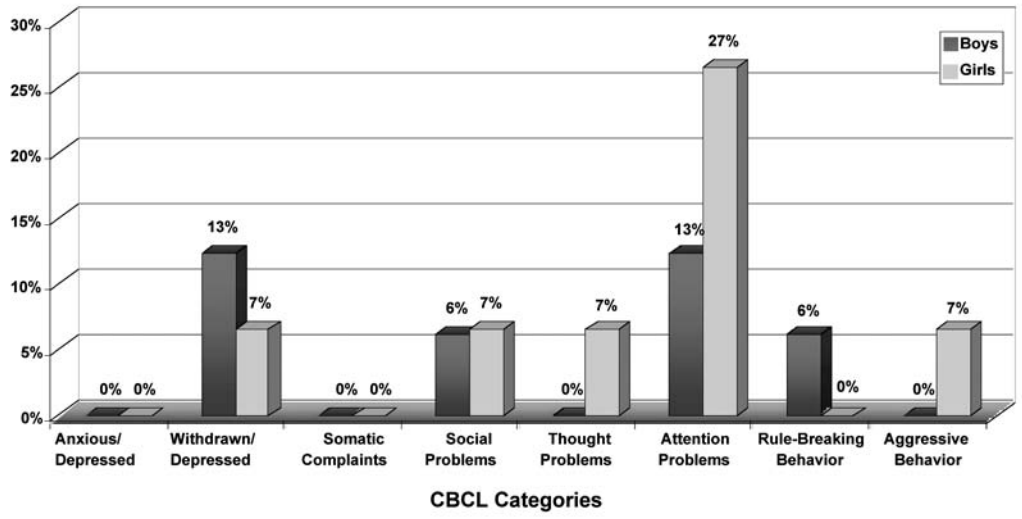
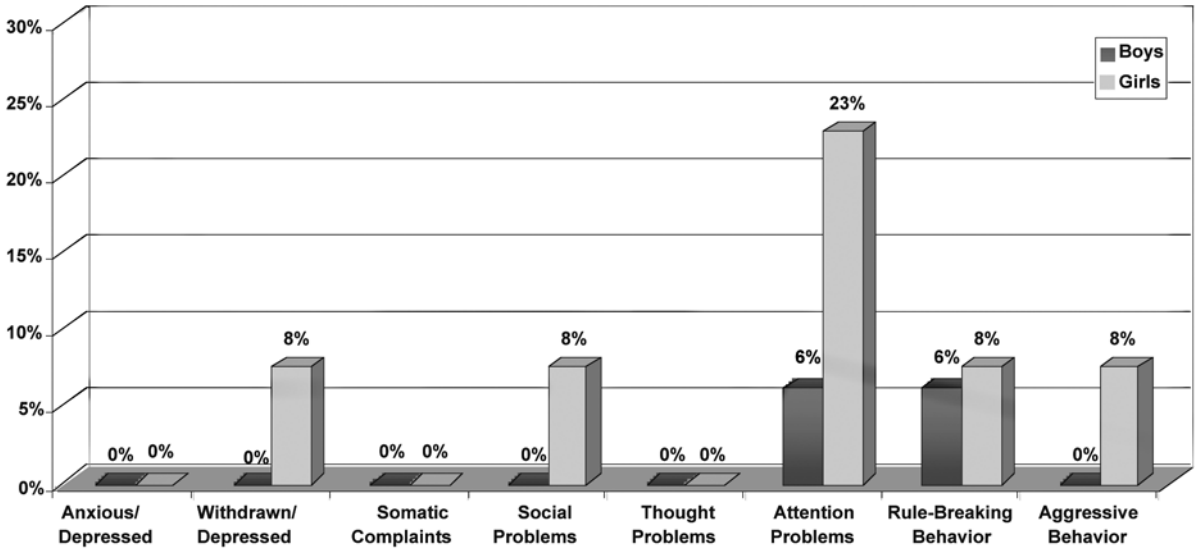


Fig. 7. Fathers' CBCL/6-18 results.



The data regarding the CBLC/1.5-5 years (boys and girls on the whole) showed that 13/24 children exceed the normal limits, exhibiting one or more behavioural problems. Even in this age group externalized behaviours were more commonly referred, especially attention problems (13/24) and aggressive behaviours (8/24). Less frequently withdrawal (6/24), somatic complaints (5/24) and emotionally reactive behaviours (2/24) were referred.

Discussion

During the last decade inter-country adoptions increased in Italy, pressing paediatricians to deal with new and troublesome problems [3 4 26]. In particular, the psycho-developmental behaviour of internationally adopted children needs appropriate care, both on their arrival and as follow-up [5-11 14]. In this respect, we evaluated the socio-demographic status of 34 Italian families dealing with international adoptees and the psycho-developmental features of their 46 children, all coming from Eastern Europe, both on their arrival and during their first year of placement in an Italian family.

The present study has some methodological limitations, i.e., its cross-sectional design, its moderately small sample size, its relatively short follow-up period (only 12 months) and the lack of comparison with domestic adoptees or non-adopted peers. Therefore, our results might not be conclusive, and need to be confirmed by non cross-sectional larger studies of longer duration, and compared with other peer studies. Despite these limitations, our investigation is the first of its kind on the behavioural problems of international adoptees in Italy, so it may represent a significant step towards helping and supporting this vulnerable group of children and their parents also in Italy.

All of the families in our study were regular two-parent households and the majority of them were middle-aged, financially stable and with middle or high education levels. These findings confirm previous studies in other western countries where inter-country adoption is mainly a choice of older and regularly married parents, belonging to economically higher and better educated social classes [1 21 24 25].

The majority of adoptive parents of our study had adopted only one child and only a few of them had biological children. This suggests that the most frequent reason inducing parents to adopt is not humanitarian, but the need to fulfil their personal desire for parenthood. In addition, international adoption in the families studied was mainly (33/34) a second choice, especially when national adoption resulted too long or too difficult to achieve. This finding is likely related with the dramatic birth rate decrease happening in Italy over recent decades.

The internationally adopted children of our study were consecutively recruited and all of them came from Eastern Europe; there were no inter-country adoptees coming from Brazil, Chile, Bolivia or India, from where they traditionally came from [2 3]. This finding is not surprising because the recent geopolitical upheavals of East Europe (i.e. the fall of communism) has facilitated adoption from countries closer to Italy and because adoptive parents tend to express their preference for white and intra-racial adoptable children which present somatic features similar to Italian ones, rather than to black and trans-racial adopted children, considering their easier integration with our Caucasian population (the so called "*invisible international adoption*").

Among the inter-country adoptees studied, both age at removal from biological families and age at adoption were higher among girls than boys. This finding may be due to the cultural and social backgrounds of the children's native countries. In fact, in Eastern Europe families have a prevailingly matriarchal structure, where women look after the family finances and have jobs usually considered masculine in western countries, while men take turns at home, are often absent, or victims of alcoholism. In this contest, girls from a very early age are involved in housekeeping as well as in taking care of younger sibling, and therefore may be removed from their biological families later, with a consequent older age at adoption.

The observed conditions which determined the removal of children from their biological families (Fig. 1) show the considerable social disadvantages of our inter-country adoptees, which they may have played an important role in determining the behavioural problems we observed. In this respect alcohol abuse is widespread in Eastern Europe [27] and maternal alcoholism can cause foetal alcohol syndrome with long-term behavioural impairments [28]. Maternal alcoholism was reported in many mothers of our adoptees (22/46, 47.8%) and, although we did not observe physical features suggestive of foetal alcohol syndrome, this adverse factor might be an important risk factor for the behavioural problems observed in our studied adoptees, both at arrival and during the follow-up.

Some of our inter-country adoptees were born prematurely, were small for gestational age, had low Apgar scores, were malnourished (growth delay for weight, height and head circumference, iron deficiency anaemia, rickets and had been sexually or physically abused). According to previous studies [19 35] these findings might likely have an important role in explaining the behavioural problems we observed among inter-country adoptees at their arrival.

The majority of children studied (29/46, 63%) had been taken away from their biological families at an early age (before 3 years), in a period of their life that is important for the development of prominent attachments and relationships with primary caregivers [7 8 11 29]. In addition, the rates of behavioural problems on arrival were related with the time spent in an orphanage, with living conditions inadequate for correct emotional growth (cohabitation with several peers; organization of daily activities in fixed routines; sharing of toys and clothes; poor dietary habits and hygienic conditions; scantiness of adult educators; hierarchic life-order; physical maltreatment and sexual abuse etc.). These adverse environmental pre-adoptive conditions may account for the frequent behavioural problems we observed in many internationally adopted children on their arrival [1 7 8 13 14 18 29 30 34]. Therefore, paediatricians should be aware of these af-

fective deprivations in the pre-adoptive life of inter-country adoptees, and should be always ready to support these children with emotional help.

Our data, in accordance with previous studies [8 13 14 18 31], show that another environmental risk factor for behavioural problems among internationally adopted children on arrival is the older age at adoptive placement. In this respect, the predominance of externalised behaviours we observed among girls and the greater difficulty in their management may be explained by the older age on arrival rather than by a gender difference. Indeed, the older the children are at adoption and the more experiences of deprivations and lack of consistent attachments they go through, the more difficult it is for them to adapt to the new family and give up their past autonomy.

The decrease in behavioural problems 6 months after adoption is considerable, since the adopted children are able to profit from positive changes in the environment offered by more stimulating adoptive families, thus documenting the positive impact of the adoptive experience [8 9 11]. Nevertheless, it is noteworthy that 23/46 (50%) adoptees presented new behavioural problems after 12 months of follow-up. Many factors may play a role in determining emotional and behavioural problems among inter-country adoptees after their placement in the new family. Some of them are hard to prevent because they are interconnected with the pre-adoptive life (prenatal, genetic and neonatal diseases; unfavourable living conditions in biological families; age at removal from them and age at adoptive placement; neglected and stressed living conditions, and length of time spent in orphanages, etc.). However, other factors regarding the characteristics of the adopting parents (especially when highly motivated), the kind of family environment the adopted children find, which direction the child's life takes on day after day, and the strength of parent-child relationship, are all strong resources that can prevent and overcome the adverse effects of pre-adoptive life [1 11 24 32]. In this respect, adopting parents should be psychologically well prepared before adoption, and afterwards emotionally well supported by specialized adoption services, in order to be able to recognize, prevent and manage the behavioural problems of their children.

Although international adoption offers improved psychological opportunities for adopted children, the question is whether they have more behavioural problems than domestic adoptees and not-adopted peers. Recent impressive meta-analyses, based on hundreds of studies on thousands of adoptive children [1 33] have compared inter-country adoptees with domestic adoptees and non-adopted peers. They found that international adoptees had more overall behavioural problems than controls, although the size effects were very small. Moreover, the majority of the inter-country adoptees were well-adjusted and presented fewer behavioural problems than domestic adoptees and their peers still in the orphanages awaiting adoption Therefore, international adoption appears as a successful and effective intervention in the developmental domains of behavioural problems.

In conclusion, the increase in number of adoptees from abroad recently observed in Italy has led to questions about behavioural problems in these children. Our study highlights how many internationally adoptees have behavioural problems at their placement in the new family, in relation to the emotional and environmental deprivation of their pre-adoptive life, length of time spent in an orphanage, age at adoption and age at removal from their biological families. Paediatricians in adoptive countries must be aware of the behavioural problems among internationally adopted children and must promote both pre-adoptive preventive-educational and post-adoptive managing-educational services, where appropriate emotional counselling can be offered to adopting parents and their children.

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