A European survey of the number and characteristics of children less than three years old in residential care at risk of harm

Research evidence increasingly suggests that young children in residential care without parents are at risk of harm in terms of attachment disorder, developmental delay and normal brain development. This damage caused by early privation of parenting has been shown to have long-term consequences. **Kevin Browne** and **colleagues*** report on a survey of 33 European countries that was conducted to identify the number and characteristics of children aged less than three years placed in residential care without their parents for more than three months during the year ending 31 December 2003. Ministries of Health in Europe were asked for official data.

For the 31 countries who responded it was estimated that 23,099 children (11.2 per 10,000) aged less than three years were living in institutions. There was great variation between countries for the proportion of young children in institutions and family foster care. Although residential care was shown to cost on average three times as much as foster care, 33 per cent of countries had more young children in institutions than fostered. Those countries with lower GDP and health expenditure had larger proportions of young children in institutions associated mainly with abandonment, disability and medical problems. Only four per cent of children were biological orphans with deceased parents.

It is recommended that no child less than three years should be placed in residential care without a parent. Even when high-quality institutions are used as an emergency measure, research has suggested that a child should be moved into family foster care as soon as possible.

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Introduction

Europe has a minority of children who live without their parents. This may be because their biological parents have died or have abandoned them for a variety of reasons. Other children are removed from their families because their parents do not have the capacity or the means to care for them appropriately. Thus, countries need to provide or assist with temporary or permanent substitute care. The type of substitute care offered varies from country to country, ranging from residential care in institutions to some form of family-based care, such as guardianship by relatives or friends, fostering or adoption. This has changed over time, influenced by research and social policy (Colton and Hellinckx, 1994).

In the UK, attachment theory (Bowlby, 1969) emphasised the negative consequences of institutional care compared to family-based care and demonstrated the importance of a parent figure to meet the psychosocial needs of children. This led to a decline in the use of residential care in large institutions or children's homes in some parts of Europe during the last quarter of the 20th century. In other parts of Europe, childcare policy has been less influenced by attachment theory and more focused on the physical needs of children and controlling their environment. This led to a reliance on residential care institutions rather than family-based care.

Furthermore, community services to uphold the child's right to grow up in a family environment (United Nations, 1989) have sometimes developed at a different rate to national child protection

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policies and legal procedures. Thus, in some countries there are not enough alternative/surrogate family placements for abused children. Consequently, children may be placed in an institution as a place of safety, often for long periods, especially when the removal of the parents' rights are being contested in court.

Research has confirmed that institutional care is detrimental to the development of a young child (Johnson *et al*, 2006), although different long-term sequelae have been found for different developmental domains as a consequence of early privation or deprivation. Some studies have demonstrated that children with severely deprived backgrounds can make a rapid recovery and 'catch up' on their physical and cognitive development when they are placed in a caring family environment at an early age (Marcovitch *et al*, 1997; Rutter and the ERA Study Team, 1998). Other studies, have shown how, even after early placement with a family, children who have spent their infancy in institutions are more likely to manifest social problems in adolescence compared to children who have been adopted but who were not institutionalised (Hodges and Tizard, 1989a, b).

Recent advances in the field of neurobiology have expanded this knowledge and added greatly to our understanding of *why* institutional care, particularly in very young children, has a negative effect on child development. They show that the human infant is born with some 100 billion neurons and each neuron forms about 15,000 synapses during the first two years of life (Balbernie, 2001). The overabundance of synapses and neurons in the infant's brain allows the adaptation of the brain in response to the environment (neuroplasticity). Synapses that are frequently used are reinforced, whereas redundant synapses are 'pruned'. Thus, early experience determines which neural pathways will become permanent and which will be eliminated (Balbernie, 2001). The human infant is genetically predisposed to interact with others but for this process to result in optimal brain development, the infant needs to interact with a caregiver who will handle, talk and respond to them in a sensitive and consistent way, repeatedly introducing new stimuli appropriate to their stage of development (Schaffer, 1990; Perry and Pollard, 1998; Trevarthen and Aitken, 2001). Hence, a strong case has been proposed for the maturation of the infant brain being embedded in the relationship between the infant and the primary caregiver (Perry and Pollard, 1998; Schore, 2001a), usually the mother.

While a socially rich family environment promotes infant brain growth, an impoverished environment has the opposite effect and will suppress brain development (Glaser, 2000). Without a supportive and predictable parent providing a one-to-one relationship to 'scaffold' infant learning, it is likely that the synaptic connections and the development of neural pathways will be impaired, leading to deficits, especially for social behaviour and language (Schore, 2001b).

The child's lack of opportunity to form a specific attachment to a parent figure is a typical feature of residential care. The culture of institutional practice is primarily concerned with the physical care of children and the establishment of routines with less emphasis on play, social interaction and individual care (Giese and Dawes, 1999). Thus, in the light of the previous discussion the residential care of young children less than three years old may have the potential to negatively affect brain functioning at the most critical and unparalleled period for brain development (Balbernie, 2001; Schore, 2001a, b).

This study aimed to survey the number and characteristics of children less than three years old placed in European institutions for more than three months without a parent as this information on early deprivation was previously unknown. The purpose was to assess the rate and cost of residential care, compared to family foster care, as a response to children in adversity. The provision of services to prevent child abuse, neglect and abandonment was also assessed.

Methods

Ministries of Health in 33 countries within Europe were asked for official data on the number, characteristics and reasons for children aged less than three residing

in institutions for more than three months without a primary caregiver (ie biological relative or step-parent) during the year ending 31 December 2003. A survey form was distributed from the World Health Organisation (WHO) Regional Office for Europe in Copenhagen, Denmark. When Ministries of Health did not hold the relevant information, they were asked to collaborate with other Ministries to obtain details. This method was successfully piloted in two countries: Denmark and Romania.

Following the pilot, the survey was sent to the remaining 31 countries which were a) members of the European Union, b) accession countries and c) countries within the European Economic Area in 2003. In those countries with no central data source (eg Austria, Belgium, UK) questionnaires were sent to different areas within the country and were later collated for the country as a whole by the investigators. In the case of Switzerland, the government reported that there was no central information held on these topics and that the researchers would need to write to each of the 42 Swiss cantons. As this was effectively doubling the size of the survey, Switzerland was excluded. The complete list of the participating 32 countries is given in Table 1.

The standardised survey questionnaire consisted of five sections: general population statistics; statistics for children living in residential care/institutions and foster care; reasons for children being placed in residential care or foster care; costs of residential care and foster care; and provision of prevention services. The respondents were instructed to provide annual statistics for 2003. Where information for children less than the age of three years was unavailable they were asked to provide an alternative statistic as close to the target age of nought to 36 months as possible, and to specify the age group reported. It was made clear that an institution was defined as 'a residential health or social care facility of 11 or more children regardless of age'. However, young children were excluded if they were institutionalised with at least one parent (eg prisons or refugee facilities) or for less than three months (eg in hospital).

After the preliminary results had been compiled, the data for each country were returned to the relevant Ministry to confirm the information and to add any identified missing information. The following countries returned data with amended and/or additional figures: Belgium, Czech Republic, Estonia, Finland, France, Iceland, Italy, Luxembourg, Malta, Norway, Slovenia, Sweden and Romania. In addition, 16 countries maintain official statistical websites. These were reviewed but no further relevant information was found.

Pearson product moment correlation coefficients were calculated between the data collected and several health and socio-economic indicators for 2002 or 2003 that the authors hypothesised might be related to the institutionalisation of young children. These were: maternal mortality rate (pregnancy-related deaths per 100,000 live births) (UNICEF, 2004a); infant mortality rate (per 1000 live births) (UNICEF, 2004a); abortion rate (per 1000 live births) (UNICEF, 2004b); adolescent birth rate (1000s) (UNICEF, 2004b); GDP per capita ($) (WHO, 2000); and total expenditure on health (as a percentage of GDP) (WHO, 2003).

Results

Number and characteristics of young children less than three in institutional care

Data on the number of children less than the age of three years in institutional care in 2003 were provided by 31 countries (no statistic was given by Luxembourg). For each of these countries the rate of institutionalisation (per 10,000) among this population of young children is shown in Table 1 (some of these figures are estimates and details are given as footnotes). Overall there were 23,099 children under the age of three in institutions. The rate of institutionalisation across 31 countries (including estimates) was 11.2 per 10,000.

Looking at the data in Table 1, France and Romania have the highest number of children under the age of three years in institutional care. However, when the

Table 1

Population, number and proportion (rate per 10,000) of children less than three years old in institutional care and foster care for the year ending 31 December 2003, in order of rate per 10,000 in institutional care

Country	*Population*	*Number in institutions*	*Rate per 10,000* in institutional care*	*Number in foster care*	*Rate per 10,000* in foster care*
Czech Republic	270,293	1,630	60	169[9]	(6)
Belgium[1]	383,639	2,164[7]	56	3,257	85
Latvia	71,250[4]	395	55	4	0.6
Bulgaria	245,704[4]	1,238	50	–	–
Lithuania	100,268	458	46	217	22
Hungary	174,893[5]	773	44	1,193	68
Romania	877,772	2,915	33	3,675	42
Slovak Republic	160,186	502	31	2,345	146
Finland	168,370	466[8]	(28)	288	17
Malta	16,485	44	27	–	–
Estonia	37,953	100	26	45	12
Spain	1,064,764	2,471[9]	(23)	3,596	34
Netherlands	818,713	1284	16	–	–
Portugal	434,616	714	16	138	3
France	2,294,439	2,980[10]	(13)	4,685[14]	20
Poland	1,490,440	1,344[4]	9	2,569	17
Croatia	178,142[4]	144	8	1,531	86
Albania	166,800[6]	133[11]	8	–	–
Sweden	278,400[4]	213[8]	(8)	470	17
Denmark	197,758	133	7	391	20
Germany	2,232,569	1,495	7	4,570	20
Ireland	166,208	95[9]	(6)	–	–
Cyprus	33,339	15[9]	(4)	–	–
Austria[2]	107,709[5]	37[12]	3	426	39
Greece	377,930[4]	114	3	20	.5
Turkey	4,388,000	850	2	580	1
Italy	1,614,667	310[13]	(2)	394[15]	2
Norway	172,877	17[8]	(<1)	263	15
United Kingdom[3]	2,037,463	65[8]	(<1)	7,745[16]	38
Iceland	12,412	0	0	7	6
Slovenia	53,736	0	0	1,252	233
Luxembourg	16,992[4]	–	–	–	–
TOTAL	20,644,787	23,099	11.2		

*Figures in brackets should be treated with caution – see notes below.

Table 1: Notes

[1]Combined figures for Flemish community and French community; [2]Combined figures for three Austrian states: Niederösterreich, Vorarlberg and Vienna; [3]Combined figures for England, Scotland, Northern Ireland and Wales; [4]Estimated from statistic for children less than four years old; [5]Estimated from statistic for children less than five years old; [6]Estimated from population for children less than five years old (UNICEF, 2004b); [7]Estimated for the French community from statistic for children less than seven years old; [8]Statistic includes some children who may be resident in an institution for less than three months, children who may be resident with a parent/caregiver and those who may be in an institution with a capacity of less than 11; [9]Estimated from statistic for children less than 18 years old; [10]Estimated from places in social service nurseries and places in medical nurseries; [11]Estimated from 'children in infant homes' statistic (UNICEF, 2004a); [12]Estimated for Niederösterreich from statistic for children less than five years; [13]Statistic includes some children who may be in an institution with a capacity of less than 11; [14]Estimated from statistic for children less than six years in care (17,010) of which 55.1 per cent were in foster care; [15]Statistic includes 201 children placed with a relative other than the biological parents; [16]Estimated from statistics for children less than four years old in public care (16,307), of which 63.3 per cent were in foster care rather than being placed with their parents or relatives.

population of children less than three is taken into account, France has 13 and Romania has 33 children per 10,000, which is a lower rate than Hungary, Lithuania, Latvia, Bulgaria, Belgium and the Czech Republic. All these countries have at least three times the average rate (11.2 per 10,000), with the highest rate found in the Czech Republic where there are 60 per 10,000.

Excluding the estimated data, a higher rate of children aged less than three in institutional care was observed in countries with a lower GDP ($r = –.576$, $p = .01$) and with a lower percentage of their GDP being spent on health care ($r = –.498$, $p < .03$). A higher rate of children less than three in institutional care was also associated with a higher rate of abortions ($r = .609$, $p < .01$). However, rates for maternal mortality and infant mortality did not correlate with the proportion of young children in institutional care.

Information on the number of children aged under three in foster care was provided by 25 countries (see Table 1). This again was transformed into a rate per 10,000 of the less than three population. Comparing these rates with the rate of institutionalisation, there is much greater variation between countries for foster care; in Greece less than one child per 10,000 is in foster care compared with 233 per 10,000 in Slovenia where there is no institutional care of young children. Eight countries had more young children in institutions than fostered (Czech Republic, Estonia, Finland, Greece, Latvia, Lithuania, Portugal and Turkey). The rate of foster care did not correlate significantly with any of the social or economic indicators investigated or the proportion of young children in institutional care.

The overall gender ratio was 1.33 male to one female child in institutional care, which is higher than the ratio for the populations studied (1.05 male to one female). Only 17 countries were able to provide information on the ethnicity of young children in institutional care and only the Netherlands and the Slovak Republic reported that there was a larger than expected proportion of minority ethnic children. Few countries could give accurate figures or estimates of the number of young children in institutional care who were disabled but information provided by 15 countries on reasons for institutionalisation indicated that, on average, at least eight per cent of young children in residential care were disabled or had a medical problem.

Reasons for institutionalisation

Only 17 countries could provide data about the reasons for the institutionalisation of children less than the age of three (see Table 2). Of these, six countries provided estimates as they were unable to provide detailed information (ie Croatia, Cyprus, Denmark, Greece, Sweden and Turkey). Overall, child abuse and/or neglect was the most frequent reason for residential care (38 per cent of cases). Nearly one in four children (24 per cent) had been placed residentially because they had been abandoned by their parents and a minority was institutionalised because of disability or medical problems (8 per cent). Only four per cent were in residential care because their parents were deceased (biological orphans). The 26 per cent of other children were there for a variety of reasons related to the parents' incapacity to care for the child, for example parents being in prison or in hospital.

The reasons for institutionalisation were compared with health and socio-economic indicators (see Table 3). Placements as a result of abandonment or deceased parents were positively correlated with rates for infant and maternal mortality. Abandonment was also associated with a high abortion rate and a high adolescent birth rate. Not surprisingly, low GDP and health expenditure were also significantly associated with infant abandonment.

Placements because of disability and medical problems were not significantly associated with any of the indicators but did correlate with higher rates of young children in institutional care ($r = .578$, $p < .03$). By contrast, placement as a consequence of abuse and/or neglect was associated with lower rates of young children in institutional care ($r = –.614$, $p < .02$).

Table 2

Reasons for institutionalisation of children less than three years old (percentage)

Country	*Biological orphans*	*'Abandoned'*	*Disability/medical*	*Abuse/neglect*	*Other*
Belgium[1]	1.9	1.5	1.4	48.8	46.4
Croatia[2]	0.0	13.0	0.0	28.0	59.0
Cyprus	–	–	–	100.0	–
Czech Republic	–	–	21.7	4.3	74.0
Denmark[#]	0.0	0.0	11.0	78.0	11.0
Estonia	1.0	30.0	12.0	44.0	13.0
France	0.4	0.4	0.0	99.2	0.0
Greece[#]	0.0	17.2	16.4	32.8	33.6
Hungary	–	77.1	22.9	–	–
Latvia	5.3	76.8	17.8	0.0	0.1
Lithuania	9.2	20.3	9.0	56.3	5.2
Malta	0.0	6.8	0.0	22.7	70.5
Portugal	0.6	11.5	0.0	41.8	46.1
Romania	–	93.4	6.4	–	0.2
Slovak Republic	4.2	7.6	14.6	4.3	69.3
Sweden	0.0	–	10.0	80.0	10.0
Turkey[#3]	45.6	54.4	–	–	–

Table 2: Notes

[#] Estimates from research partner data (not official government response)

[1] Combined figures for Flemish community and French community

[2] Percentages are for children less than 18

[3] Percentages are for children less than six

Table 3

Pearson co-efficient correlations between health and socio-economic indicators and reasons for children under three years being placed in residential care institutions

Indicators	*Biological orphans*	*'Abandoned'*	*Disability/medical*	*Abuse/neglect*
Infant mortality rate	.880**	.754**	.014[ns]	–.624*
Maternal mortality rate	.618*	.740**	-.007[ns]	–.196 [ns]
GDP	–.274[ns]	–.618*	–.413[ns]	.880**
Health expenditure	–.529*	-.574*	-.347[ns]	.494[ns]
Abortion rate	-.154[ns]	.735**	.128[ns]	–.531[ns]
Adolescent birth rate	.129[ns]	.591*	–.052[ns]	–.421[ns]

[ns] not significant, * $p < .05$, ** $p < .01$

Cost of care and provision of services for prevention

Two-thirds of the countries surveyed were able to provide some information about the costs of institutional and/or foster care for children with and without disabilities (see Table 4). Four countries provided estimates as they were unable to provide detailed data, ie France, Germany, Hungary and Turkey, and these were excluded from subsequent analysis.

The average annual costs in 2003 for a child aged less than three without disabilities were 41,051 Euros for residential

Table 4
Average annual cost of institutional placement and foster care per child (Euros)

Country	*Institutional placement*	*Foster care*	*Institutional placement (child with disabilities)*	*Foster care (child with disabilities)*
Austria[1]	27,300	5,400	43,050	22,673
Croatia	6,000	1,800	7,800	2,400
Cyprus	1,134	–	–	–
Denmark	109,023	50,474	109,023	50,474
Estonia	3,679	691	4,316	–
Finland	62,050	13,870	–	–
France[2]	66,000	16,000	–	–
Germany[2]	35,000	9,500	–	–
Greece	29,633	2,112	25,000	6,696
Hungary[#]	9,282	3,713	9,282	4,456
Ireland	–	15,106	–	–
Italy	36,500	4,200	–	–
Latvia	33,099	20,704	40,138	–
Malta	1,444	1,444	–	–
Norway	125,573	35,355	–	–
Portugal	4,703	3,399	–	5,220
Romania	1,925	1,154	1,925	1,154
Slovak Republic	5,446	979	5,485	–
Sweden	126,245	28,510	122,185	122,185
Turkey[#]	2,639	683	2,430	1,365
United Kingdom[3]	83,063	24,778	71,248	37,180
Average[4]	41,051	13,124	43,017	30,998

Table 4: Notes
[#] Estimates from research partner data (not official government response)
[1] Figures from one Austrian state: Niederösterreich
[2] Cost for placement of child less than 18 years old
[3] Combined figures for England, Scotland, Northern Ireland and Wales
[4] Excluding estimates

care and 13,124 Euros for foster care. For a disabled child of the same age, the average annual costs were 43,017 Euros for residential care and 30,998 Euros for foster care. However, as these are average costs and may exclude the costs of education, they need to be interpreted with caution.

Overall, the mean cost of residential care was significantly higher than the mean cost of foster care ($t = 3.62$, $df = 14$, $p = .003$). However, no significant difference was found between the cost of residential care for a child with or without disabilities ($t = -.21$, $df = 9$, $p = .841$). Similarly, no significant difference was found between the cost of foster care for a child with or without disabilities ($t = –1.43$, $df = 6$, $p = .202$). Therefore, there was no extra expenditure for children with disabilities in countries that provided data (see Table 4). As can be seen from Table 4, there was substantial variation across the countries surveyed. The costs of residential care in Norway and Sweden were the highest at over 120,000 Euros

per year, whereas for nine of the countries the average annual cost was less than 10,000 Euros.

GDP correlated significantly and positively with the cost of an institutional placement ($r = .878$, $p < .001$), the cost of foster care ($r = .727$, $p = .002$) and the cost of an institutional placement for a child with disabilities ($r = .883$, $p < .001$). However, there was no significant correlation between GDP and the cost of foster care for a child with disabilities ($r = .694$, $p = .08$). There were also no significant correlations between health expenditure and the cost of residential care or foster care.

Countries were asked to identify from a list services that are available in their country to help prevent child abuse, neglect and abandonment. They were also asked to indicate whether the provision of these services was 'public' or 'private'. For the 30 countries that responded, the public provision of counselling services was correlated with a lower rate of institutionalisation per 10,000 ($r = –.445$, $p < .05$) and a lower adolescent birth rate ($r = –.429$, $p < .03$). In turn, these counselling services were correlated with higher GDP ($r = .443$, $p < .03$) and higher health expenditure ($r = .387$, $p < .04$). The provision of public community services was also correlated with a lower adolescent birth rate ($r = –.443$, $p < .03$) but not with a lower rate of institutionalisation of young children.

Discussion

This survey showed that in 31 European countries during 2003 there were 23,099 children (11 per 10,000) aged less than three years living in residential care for more than three months without a parent. There was great variation between countries for quality of care and the proportion (from 0 to 60 per 10,000) of young children in institutions. Four countries had less than one per 10,000, 12 countries had between one and ten per 10,000, seven countries had between 11 and 30 per 10,000 and, alarmingly, eight countries had between 31 and 60 children per 10,000 in institutions. With the exception of Belgium, the top eight comprised Central and Eastern European countries.

For 24 countries that provided information on foster care, there was also huge variation in the availability of foster care services, from few (eg Greece) to the majority of young children in out-of-home-care (eg Slovenia). Eight countries (33 per cent) had more young children in institutions than fostered, although residential care was shown to cost on average three times as much as foster care. Surprisingly, the number of children in residential care was not associated with the number of children fostered. This suggests that the reasons for institutional placement are complex.

Although the survey discovered that there were many institutionalised young children in most parts of Europe, the reasons for institutional care generally differed between Western Europe compared to Central and Eastern Europe (see Table 2). Children were more often institutionalised in economically developed countries for abuse and neglect whereas, in countries in transition, children were placed in institutional care mainly because of abandonment and disability.

There was a significant positive association between GDP and abuse and/or neglect being the cited reason for residential care. This is not surprising given that child protection procedures are associated with economically developed countries. Overall, those countries with lower GDP and health expenditure had larger proportions of young children in institutions associated mainly with abandonment, disability and medical problems. Abandonment was also associated with other indicators of poor health and socio-economic status, such as a high abortion rate and a high adolescent birth rate.

Countries that spend less on public health and social services are more likely to have higher numbers of institutionalised children, possibly as a consequence of not providing mother-and-child residential care facilities and counselling services to prevent abandonment and rehabilitate parents who are at risk of abusing/neglecting their children. Furthermore, in the absence of adequate health and social services for parents (eg mental health and alcohol/drug addiction services), children are likely to remain in

institutional care for longer periods of time. This observation is particularly pertinent to children less than three years of age where an institutional placement may represent a significant proportion of their early life experience. Indeed, children who experience institutional care before the age of six months may suffer from long-lasting detrimental effects (Marcovitch *et al*, 1997; Rutter and the ERA Study Team, 1998). A recent EU Daphne report by our team (Browne *et al*, 2005) on seven European countries (Denmark, France, Greece, Hungary, Poland, Romania and Slovakia) showed that the average age of children entering an institution (of 25 children or more) was ten months old. They spent on average 16 months in this harmful environment before being placed elsewhere. Approximately one in five children returned to their parents or relatives, 63 per cent entered a new family (foster care or adoption) but 25 per cent were moved to another institution (of 11 children or more). Surprisingly, there was little difference between the countries studied for the average length of stay of children aged less than five years with a range of ten months (Poland) to 20 months (Greece). Furthermore there were no significant differences in the staff to child ratios in small (11 to 24 children) or large (25 or more children) institutions.

The survey showed (see Table 4) that Central and Eastern European countries in transition spent less per child for institutional care compared with economically developed countries in Western Europe (with the exception of Portugal). Nevertheless, from observation, this expenditure is mainly associated with the physical care of the child and the physical conditions of the institutions rather than the social environment.

At least eight countries require the urgent development of foster care and rehabilitation services as they have a high proportion of young children in institutional care environments. However, some countries use foster care purely as a caretaker provision (eg Bulgaria, Latvia, Lithuania, Romania) until the child can be adopted, with little attempt at rehabilitating parents in difficulty. Other countries use foster care more therapeutically to provide treatment for the child and/or a role model for parents in difficulty as a part of family rehabilitation (eg Iceland, Norway, Slovenia, UK). When the purpose of foster care is unclear to parents in difficulty, there is often resistance to their child being placed in foster care, through fear of loss and detachment. Ironically, where services for family rehabilitation are limited, parents prefer the anonymity of institutional care, not recognising the damage that can be done to their developing child.

Adoption agencies and the parents they represent often assume that many children in residential care are orphans (Bainham, 2003) and this myth is propagated by the term 'orphanages' which is sometimes inappropriately applied to social care facilities. In fact, this international survey estimates that only four per cent of young children in residential care are biological orphans because their parents were deceased. This is consistent with a previous national estimate for Romania of three per cent reported by the WHO Regional Office for Europe (1999). Countries in transition have been observed to use international adoption as an economically attractive solution to prevent long-term institutional care of children. However, the use of intercountry adoption as a solution to long-term institutional care is not always in the best interests of the child (Bainham, 2003), and should only be considered as a last resort according to Article 21 of the UNCRC (United Nations, 1989).

Countries in transition which seek simple solutions and provide a market for children to be adopted internationally would better serve the interests of their children by developing community support services of health and social professionals working with children and their families. Thus, services should be offered to parents and surrogate parents before adoption is considered. Yet, this rarely happens in cases of international adoption (Bainham, 2003).

Some economically developed countries encourage prospective parents to adopt internationally, mainly from other parts of Europe. Indeed, the competition

for young children is so great that the price associated with internationally adopting a young child is on average 20,000 Euros (Chou *et al*, 2005). This places parents who wish to adopt nationally within transition countries at a massive disadvantage as they cannot compete economically with the international adoption market. Ironically, some economically developed countries that 'import' children from countries in transition have high numbers of children in their own residential care institutions (eg France and Spain). This indicates that parental rights are better respected and defended in some countries compared to others, as a result of varying legal procedures. This is at the expense of children's rights. The role of ethnicity in the selection of children for international adoption is yet to be determined. What has been observed is the over-representation of ethnic minorities and children with disabilities who remain in residential care.

Limitations of the project

The major limitation to the project was the difficulty in obtaining official data at country level that provided reliable information on all aspects of the survey. Given that the first years of life are a critical and sensitive period for human health and development, it is surprising that only half (51 per cent) of the countries could provide basic information on the reasons for placement in residential care of children less than three years of age. A further complication to data collection is that there is no standardisation of terms and expressions used to define and describe children in difficulty and no assessment of the quality of services provided. Therefore this survey had to provide specific definitions of residential care.

Nevertheless, this constitutes the first international attempt across Europe to measure and compare the reasons, number and characteristics of children subject to early institutionalisation and deprivation of parenting, mainly as a result of disability, family poverty, child abuse, neglect and abandonment.

Conclusion

Regardless of the quality of institutional care, normal child development requires the opportunity for frequent one-to-one interactions with a parent or a foster parent. Research has demonstrated that young children who are institutionalised during the first six months suffer long-term developmental delay (Marcovitch *et al*, 1997; Rutter and the ERA Study Team, 1998). The same research has found that young children who have experienced residential care after the age of six months, as an emergency measure, are more likely to recover from their deprived background and catch up on their physical and cognitive development once they have been placed in a caring family environment (Marcovitch *et al*, 1997; Rutter and the ERA Study Team, 1998). However, it is likely that brain mechanisms for social behaviour and attachments may be permanently affected (Glaser, 2000; Schore, 2001b), leading to a greater probability of antisocial behaviour (Andersson, 2005).

Therefore, it is recommended that an overriding principle for child care and protection that NO child less than three years should be placed in a residential care institution without a parent/primary caregiver. All children under five currently living in institutional care should be moved to family-based care and sufficient numbers of foster families have to be carefully assessed and recruited before deinstitutionalisation. In life-threatening circumstances, when high-quality institutions are used as an emergency measure, it is recommended that the child be moved into foster family care as soon as possible.

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