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Parental Perceptions of the Use of Coercive Measures on Children with Developmental  
Disabilities

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## **Abstract**

### **Background**

Children with developmental disabilities who exhibit challenging behaviour are potentially subject to the use of coercive interventions. The aim of the study was to investigate the prevalence of the use of coercive measures by authorities, according to parents' reports.

### **Materials and Methods**

A postal survey was distributed, as a total population study, to 946 Finnish parents of children with developmental disabilities, between the ages of 5 and 15, and who were entitled to the highest disability allowance.

### **Results**

Of the respondents, 54 (22%) answered "yes" when asked whether their child had been subjected to coercive procedures by authorities. The parents had seldom approved the use of coercive means and often believed that such means had negative effects on their child.

### **Conclusions**

In order to protect the children's rights, the use of coercive measures should be regulated more strictly, and positive intervention strategies should be taught to teachers and nurses.

**Keywords:** children with disabilities, restrictive interventions, parents, Finland

## Parental Perceptions of the Use of Coercive Measures on Children with Developmental Disabilities

Violence against children was prohibited by law in Finland only in the year 1983 (Act on Child Custody and Right of Access, 1983). The delayed date can be explained by the long tradition of the use of corporal punishment as an accepted tool in education. The frequency of parental violence towards children is decreasing rapidly in Finland, probably because of fundamental changes occurring in parental attitudes. A study from the year 2013 with a representative sample of 15-year-old children ( $n = 5,021$ ) found that 11% of them reported having been exposed to mild violence, and 3% to severe violence on the part of their parents (Fagerlund et al. 2014, p. 145). These numbers were as high as 72% and 8%, respectively, in a similar study done only 15 years earlier, in 1998 (Fagerlund et al. 2014, p. 145).

Physical punishment and other coercive measures are typically used as responses to a child's behavioural problems. A recent review indicated that 10-15% of individuals with intellectual disability exhibit challenging behaviours (Lloyd & Kennedy 2014). This is three to five times higher than the number of their nondisabled peers (Emerson & Einfeld 2011, pp. 16 -17). The high frequency of behavioural problems among children with intellectual disabilities means that they are at a higher risk of becoming targets of violence. Typical forms of coercive measures applied in education have included a) aversive procedures, or causing pain or injury to the child, b) restraint, or limiting freedom of movement, and c) seclusion, or placement of the child in a place he or she cannot get out of.

Meta-analysis performed on corporal punishment of children has indicated that its use is associated with a slightly increased risk of the child developing emotional ( $d = .20$ ) and behavioral ( $d = .21$ ) problems (Paolucci & Violato 2004). Immediate negative consequences of the use of coercive measures include emotional harm, physical harm and even death

(Nishimura 2011).

Restraint procedures have been classified as containing physical or manual restraint, and mechanical restraint. Sometimes seclusion is categorized as an environmental restraint (Heyvaert et al. 2014). Physical or manual restraint of an individual through force may sometimes be dangerous. According to Nishimura (2011), restraints in which a young child is held facedown can be especially deadly because of possible suffocation. In this position, if pressure or weight is placed on the chest and lungs of an agitated child he or she may suffer a phrenospasm that hinders breathing. However, the supine position may be equally dangerous because it predisposes a child to respiratory distress (Mohr et al. 2003). Because of their fragility, children are at greater risk of injury during so called “therapeutic holds” (Mohr et al. 2003). A prolonged use of mechanical restraints such as straitjackets may result in the prevention of learning, a decline in motor skills, muscular atrophy and the transformation of physical restraint to positive reinforcement (Favell et al. 1981).

A meta-analysis on studies using restraint as an intervention among persons with intellectual disabilities showed that it was on average highly effective in reducing challenging behaviour (Heyvarth et al. 2014). However, the everyday use of restraint does not typically focus on treatment but on the management of aggressive or self-destructive behaviour for the purposes of safety. The same holds true for the use of seclusion, or environmental restraint, which should not be confused with the use of momentary time-out. The latter is frequently used, but is also easily misused in education (Wolf et al. 2006).

While educational research in the sixties and seventies frequently applied punishment procedures, like electric shock, to treat severely self-injurious behavior, the development of positive behaviour supports has now made those methods largely obsolete (Carr et al. 1994; Koegel et al. 1996). In the eighties, several professional organizations passed resolutions

against the use of aversives and corporal punishment with persons with disabilities (Meyer & Evans 1989, p. 15). Some authors have continued to recommend their limited use (Linscheid & Meinhold 1990), while the mainstream efforts have, since the eighties, been concentrated on the development of positive alternatives for handling challenging behaviour (Koegel et al. 1996; Meyer & Evans 1989). However, despite the increased knowledge regarding positive alternatives, staff in the services for people with developmental disabilities has continued to use less appropriate methods, such as continued restraints or aversive procedures (Emerson et al. 2000; Westling et al. 2010).

Several studies have surveyed the use of coercive measures on adults with intellectual disabilities in housing units. In Sweden, Lundstöm et al. (2011) conducted a one-week study of 556 adults with intellectual disabilities living in group homes, and reported that 17.8% of the residents had been subjected to physical restraints during the previous week. This result is high in the light of Swedish legislation that guarantees absolute protection against coercive measures by authorities. Emerson et al.'s (2000) results from the U.K. indicate that the wide use of coercive measures was not limited to institutional environments, but was common in other forms of housing as well. According to their findings, physical restraint was used with 44% of people with intellectual disabilities who showed challenging behaviour. Sturmey (1999) found that restraints were used with 15% of intellectually disabled inhabitants in an institutional population of 300 people in the United States. In an English population of 3,902 service users, he found that 53% of the 509 service units surveyed used restraints, and 9 % used seclusion with some of their inhabitants (Sturmey 2009).

Some studies have reviewed the use of coercive measures in school environments. In a U.S. sample of 72 principals of schools for students with emotional and behavioural problems, the use of physical restraint in schools varied from zero to several occurrences per day. About

one third of the directors reported that restraints were used in their school between one to three times per week (Fogt et al. 2008). In another U.S. study, Persi and Pasquali (1999) assessed the use of restraint and seclusion in a population of 281 children in various service environments, including schools. According to their results, 19% of the children were subjected to some form of restraint or seclusion over the course of one year (Persi & Pasquali 1999).

A recent online study surveyed the prevalence of the professional use of coercive means by asking the parents of children with disabilities about their experiences (Westling et al. 2010). A web-based questionnaire was delivered to the members of several advocacy organizations. The return rate was estimated to be between 7% and 13%. More than 1,200 U.S. parents (64.7% of the total respondents) reported that their child had been subjected to some coercive measures by school personnel (Westling et al. 2010). The procedures used were restraint (78.0%), seclusion (70.7%) and aversive procedures (32.8%). The member of staff most often responsible for these procedures was a special education teacher (71.2%). The consent of parents was only obtained in 21.8% of the cases, and a previous behaviour improvement plan had been drafted in only 37.9% of the cases. According to the parents, the use of coercive measures had caused the child physical injury (43.2%), obvious signs of physical pain (33.5%) and/or emotional trauma (92.2%) (Westling et al. 2010).

### **Previous Research in Finland**

In Finland, not much information is available on the use of coercive measures in the care of people with intellectual or developmental disabilities. Saloviita (2002) surveyed the use of coercive measures on 261 adults with intellectual disabilities in various forms of residential services. The results showed that coercive measures were applied to 109 people (42%) over a three month-period. Some examples of these coercive measures were

mechanical restraints (38 people, or 15%) and punishments (89 people, or 34%) that included food or drink withdrawal (40 people or 15%) and corporal punishment (3 people).

In contrast to the high incidence of coercive measures reported in the above study, two other Finnish studies reported much lower incidences. A study conducted in an institution for people with intellectual disabilities ( $n = 181$ ) found coercive measures were used on only 19 people over six months (Koskentausta et al. 2003). Another study carried out by an official state monitoring agency, Valvira, found only occasional examples of the use of coercive measures in their study of 69 residential organizations for people with intellectual disabilities (Valvira 2013). In these studies, in contrast to that of Saloviita (2002) only official reports were used, which may explain the low prevalence rates obtained.

The use of restraint, seclusion and aversive procedures is forbidden in Finnish schools by the Basic Education Act (1998). The law entitles teachers to use force only in some special situations, which are described in detail. The Developmental Disabilities Act (1977) allows the use of coercion for safety reasons, or for “implementing special care” which is quite a broad formulation.

In Finland, the use of restraint, seclusion and aversive procedures on children with disabilities has awakened only occasional attention. Newspapers have infrequently reported cases of exceptionally harsh intervention. One example of this was the case where a special education teacher and three classroom assistants were severely penalised in the Court of Appeal after they had used on a regular basis Tabasco sauce as a punishment for a child with autism (Rusi 1996).

There have been no prevalence studies on the use of coercive measures by educational and social service staff on children with intellectual and developmental disabilities in Finland to date. The difficulty in this type of research is the reliability of the obtained data. If parents



are asked, the problem is that they may be unaware of many occasions of coercion. If the staff are asked directly, the problem is that they may under-report the occurrences, because the use of coercive means is mostly against the law.

The present study is a survey directed to the parents of children with disabilities. Its aim was to explore parental knowledge of the level of use of coercive means with their children occurring in professional environments outside the home. Specifically, the frequency and form of coercive measures were of interest, as well as several background variables associated with these variables, including the position of the coercive means in written individual education plans (IEP) for the children, and the consent obtained from the parents.

## **Materials and Methods**

### **Sampling**

A total population study was performed with the families of children with disabilities that fulfilled three sampling criteria. First, the age of the child had to be between 5 and 15 years. The lower age limit of five years was applied because practically all children with significant disabilities in Finland enter day-care services or preschool at the age of five, and thereafter experience care practices outside the family home. The upper age limit of 15 was determined through a change in the type of disability allowance after that age, which would have made the age cohorts incomparable.

According to the second sampling criterion, the child had to be entitled to the highest disability allowance from KELA, or the Finnish Social Insurance Institution. There are three levels of disability allowance for children. The highest allowance, amounting to €417 per month, is intended for children whose treatment, care and rehabilitation requires demanding and around-the-clock commitment from the family. The second highest disability allowance of €215 is intended for families who have to use significant time in the care of their child

(KELA 2013). The sample was limited to the first category, which contained children with significant intellectual and developmental disabilities. Thus, children with milder forms of disability were excluded from this study.

The third selection criterion involved the child's diagnosis. To be selected for the study, the child had to have his or her first three diagnoses in the KELA files based on conditions between F70 and F90, as defined by the World Health Organization (WHO) in the 10th edition of *International Statistical Classification of Diseases and Related Health Problems* (WHO 2010). These diagnoses include the conditions of mental retardation (F70-F79), hyperkinetic disorders (F90) and disorders of psychological development, such as disorders of speech and language, autism or disorders of scholastic skills (F80-F89). In Finland, the use of the diagnosis of intellectual disability has radically diminished as the use of other diagnoses, possibly less stigmatizing, has increased. Therefore, for example, the number of children with a diagnosis of severe intellectual disabilities decreased by 40% between 2002 and 2010 in the school statistics (Statistics Finland 2010). However, the number of children diagnosed as autistic doubled over the same period (Statistics Finland 2010). In order to find children with probable deficits in intellectual functioning, it was thus considered necessary to include not only the diagnoses of mental retardation (F70 - F79) but also disorders of psychological development (F80 – F89) and hyperkinetic disorders (F90). The overall category of developmental disabilities (F80 - F90) is used in this study to signify this selection process.

The sample was gathered from the KELA databases. KELA was also responsible for posting the letters. Only those addresses where the parents lived in the same household as the child were included in the sample. No reminders were sent, and participants were not rewarded in any way. A total of 946 cases were identified as fulfilling the criteria, and the

survey was sent to all of them.

### **Questionnaire**

The questionnaire, which could be answered by a father or a mother, consisted of four background questions asking the disability, age and sex of the child, and his or her ability to speak. The seventeen additional items were based on a questionnaire carried out in the U.S. by The Alliance to Prevent Restraint, Aversive Interventions and Seclusion (APRAIS), an organization working against the inappropriate treatment of individuals with disabilities (APRAIS 2009). The definitions of restraint, seclusion and aversive procedure were provided in the questionnaire. These concepts were defined as follows:

- Restraint: Physical procedures are used in order to limit freedom of movement either through mechanical devices or by holding the child manually for an extended period of time. Normal safety devices, like a seat belt or escorting the child by hand, do not count; neither do occurrences of crisis management or protection from imminent harm.
- Seclusion: The placement of the child in a place he/she cannot get out of for an extended period of time. Short-term seclusion from a group, provided the child is not removed to a closed room, does not count.
- Aversive procedures: Causing pain or injury to the child. Verbal reprimands do not count.

The cover letter underlined that the survey was voluntary and confidential and had no effect on the social benefits the participants received. It was also stressed that no one could be prosecuted on the basis of the results. The study was accepted by the Ethical Committee of KELA, and was in accordance with the ethical guidelines of the University of Jyväskylä (University of Jyväskylä 2012).

## **Participants**

The questionnaire was returned by 245 participants (25.9% of the total population). The description of the children is presented in Table 1. Of the children, 65% were boys and 35% girls; 18% spoke comprehensibly, 18% spoke with difficulties and 64% did not speak at all. The parents could report more than one disability. The most frequently mentioned disabilities were intellectual disability (48%), autism (27%), multiple disabilities (25%), physical disabilities such as CP (8%), and sensory disability (5%). Behavioural problems such as ADHD (2%) or emotional or behavioural difficulties (3%) were infrequent.

Non-respondents were analysed by comparing the respondents with the total population data available from the KELA database. The distribution of sex was similar in both databases: in the total population the proportion of boys was 63.8%, and in the group of respondents it was 65.2%. The respondents reported their child had autism less often (26.6%) than was counted in the total population (35.9%); and they reported their child had intellectual disabilities less often (48.0%) than the total population (77.0%).

The data were analysed using the IBM SPSS Statistics 20. The results are mainly presented in absolute numbers and percentages.

## **Results**

When asked whether they had experienced the use of coercive measures towards their child, 54 (22%) of the participants responded “yes”, 154 (62.9 %) responded “no” and 36 (14.7%) responded “don’t know”. The most common form of coercive measures the parents reported was restraint, mentioned by 39 (15.9%) of the respondents, followed by seclusion, which was reported by 33 (13.4%) respondents, and aversive procedures, reported by 18 (7.3%) respondents (see Table 1).

The most frequent form of coercive treatment mentioned was holding the child for a

long time so that he/she could not move (13.1%), placing the child in a locked room (9.4%), using force to move the child into another area (7.8%), tying the hands, feet or some other part of the child (7.7%) or dressing the child in special clothing (4.5%). If seclusion was used, its length varied, according to the replies, from a few minutes to several hours. Of the parents, 41% felt coercive measures had caused their child physical injuries, pain or emotional trauma. The physical injuries the parents reported typically included bruises, and the emotional problems typically included increased fearfulness, aggressiveness and behavioural problems.

The child's sex was not associated with the reported use of coercive measures  $X^2(1) = .36, p = .23$ ; nor was the child's ability to speak  $F(2) = 2.02, p = .14$ . However, the diagnosis of autism was connected with an increased use of coercive measures,  $X^2(1) = 13.911, p = .000$ . Of the children with autism ( $n = 65$ ), 39% had been exposed to coercive measures as reported by the respondents. This is in contrast to the 16% of children with other diagnoses who had experienced such measures. No differences in the use of coercive measures were observed in any other diagnostic category.

Detailed results for those children who were reported to have been exposed to coercive measures are presented in Table 2. The results show that the use of coercive measures, as reported by parents, was most frequent in the age group from six to nine years, with 43% of all occurrences (see Figure 1); coercive measures took place during a single year in 25.5% of the cases, over two years in 21.3% of the cases, over three years in 21.2% of the cases, and between four and twelve years in 31.9% of the cases.

The person reported to have used coercive measures was most often the nurse in the institution (60%), a special education teacher (40%) or a personal assistant (38%). When used in school, coercive measures were primarily used in special schools (33%) and special education classrooms (24%). When used in the housing units, the most frequent place was the

institution (33%).

Usually the parents were not informed in writing of the use of coercive measures (62%) and 70% of parents had not given written consent for the use of such measures. There was usually no written plan that included a record of the behavioural problem (70%); the use of coercive measures was not written into the child's Individualised Education Plan (IEP) in 71% of all cases, and 6% of parents said they had complained to some authority about the use of coercive measures.

In cases ( $n = 11$ ) where the use of restraint, seclusion or aversive procedures were included in the written IEP of the child, the use of restraint (82%) was the most frequent form followed by seclusion (55%) and aversive procedures (27%). The use of coercion was recorded in the IEP most often in special schools (46%) or institutions (36%). Typical forms of coercion, according to replies, involved holding the child still for an extended period of time (82%), forcefully moving the child (46%) or the use of restrictive clothing (46%).

### **Discussion**

The replies obtained from the parents indicated that unacceptable practices were used to control the challenging behaviour of children with disabilities in schools, day care centres and institutions. One fifth of the participating parents of this study reported that the authorities had used coercive measures on their children with disabilities. Many of these parents estimated that the child had suffered from emotional trauma because of the use of restraint, seclusion or aversive procedures, and several parents reported infliction of physical pain or injury.

The exact proportion of children being exposed to coercive measures is difficult to estimate in a reliable way for several reasons. Because of their communication difficulties, many of these children cannot themselves report at home on the daily happenings. The same

is often true of their classmates as well. About 15% of the responding parents reported that they did not know whether their child had been subjected to coercive measures. Only 63% were sure that such measures had not been used. It is also plausible that the authorities have not reported all instances of coercion to parents, because such measures are mostly illegal in Finland.

In the present study the overall percentage, 22%, was significantly lower compared with 65% obtained by Westling et al. (2010), although the questionnaires were almost identical. This difference cannot be explained solely through the underrepresentation of children with autism in a Finnish sample. One explanation may be the differences in the return rate, which was 25.9% in the present study and between 7% and 13% in the study of Westling et al. (2010). It can be supposed that parents who have something to say would be more predisposed to participate in this kind of study than those who have nothing to report. This means that the percentages reported by Westling et al. (2010) probably overestimated the prevalence of the phenomenon.

The exposure to coercive measures was associated with some background variables. First, the use of restraint, seclusion and aversive procedures was reported to be most frequent among children with autism. This is in accordance with the findings of a Finnish study that challenging behaviour is reported to be more frequent among individuals diagnosed with autism than among other individuals with intellectual disabilities with Cohen's  $d = 0.63$  (Saloviita, 1990, p. 107).

Second, the use of these measures was more frequent in the age group from six to nine years, signifying the elevated use of coercive measures at the beginning of the children's school career. Previous studies have also reported the elevated use of restriction and seclusion during the first school years in comparison with the later phases either as crisis management

tools (Villani et al. 2012) or as coercive measures (Westling et al. 2010). This figure may indicate that children with disabilities present more frequently with challenging behaviour during their early years of schooling, rather than later.

Third, the data indicated that the use of coercive measures was associated with restrictive environments, such as institutions, special education schools and classrooms. Special education teachers, school assistants and nurses were the most frequent practitioners of coercive measures. Similarly, the more restrictive environments were observed by Westling et al. (2010) to be associated with the more frequent use of coercive acts.

According to the parents, the use of coercive measures was rarely reported to the family in written form, and they had only rarely given consent for the use of such measures. The use of restraint, seclusion or aversive procedures was only occasionally included in the child's IEP, and still more seldom was it included in any separate behavioural improvement plan. This suggests that coercive measures were typically used in a spontaneous manner, as a reaction to behavioural problems, without conscious forward planning. In some cases, the parents had complained about the use of coercive measures to various authorities, including the police.

At the school level, the use of coercive measures is strictly regulated in the legislation. However, the legal regulations are much vaguer in the field of special services for developmental disabilities. Despite this difference, illegitimate use of coercive means was observed in both fields. In order to protect children's rights, explicit rules are crucial at all organizational levels. However, improvements in the legislation alone are not sufficient as demonstrated by the Finnish follow-up study in the field of psychiatry (Keski-Valkama *et al.* 2007). The authors recommended that, in addition to legislative changes, the use of restrictive means should be constantly monitored and ethical questions should be under continuous



scrutiny. In the field of education, teachers and nurses need more training in the use of positive behavioural management strategies. There is ample literature on the positive management of challenging behaviour in people with developmental disabilities (see, e.g., Sailor *et al.* 2011). However, these methods are not widely known among practitioners.

The limitations of this study include the low response rate (25.9%), which may distort the results, especially if the sample is skewed. This actually seems to have been the case, because autism and intellectual disabilities were underrepresented in the sample when compared with the files of KELA. Comparative data were obtained only in relation to the sex and diagnosis of the child, while more information, for example on the socioeconomic status of the parents, would have been useful. Another limitation of the study was that the use of coercive measures was inquired after only on an annual basis, while it would have been reasonable to collect more detailed information on its frequency. The nature of the challenging behaviour of the child was not asked for, which prevented the proportioning of the use of coercive measures in relation to the behaviour of the child. It would be reasonable to relate the coercive measures used to the specific behaviour of the child. It also would have been valuable to review in greater detail parental acceptance of the coercive measures. The survey did not define what was meant with the “extended period of time” when restraint or seclusion was used. Therefore, the evaluation of the appropriateness of the length was left totally for the participants. These deficiencies should be covered in future studies.

The results of this study demand the attention of Finnish policy-makers. While not all the coercive measures reported were exactly illegal, most of them could be considered unethical. Examples of illegal means were the aversive procedures, and the use of several restrictive measures in the school. Furthermore, the coercive means were mostly used without informing the parents or asking for their permission. Typically, the use of coercive measures

was not included in the child's IEP, and their use was not preceded by a written behavioural improvement plan.

There is an immediate need to eliminate the use of coercive means and substitute them with more humane and legal alternatives. Several measures should be used jointly in order to protect these exceptionally vulnerable children, who are dependent on adults and are often unable to communicate their problems to others. Some of the possible measures may include changes in legislation, closing down the most restrictive environments, stricter monitoring, continuous discussion on ethical standards and the constant training of personnel.

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Table 1

*Demographic data of the participants and the use of restraints, seclusion and aversive procedures (n = 246)*

Item	Response option	N	% of total responses
Diagnosis of the child (select as many as needed)	ADHD	4	1.6
	Brain impairment	8	3.3
	Autism	65	26.6
	Dysphasia	2	0.8
	Physical impairment	19	7.8
	Intellectual disability	117	48.0
	Multiple disabilities	60	24.6
	Sensory disability	12	4.9
	Learning difficulty	7	2.9
	Socio-emotional problems	6	2.5
Gender	Girl	85	34.8
	Boy	159	65.2
Child's ability to speak	Speaks comprehensibly	44	18.2
	Speech difficult to understand	44	18.2
	No speech	154	63.6
Has your child ever been restrained, secluded or subjected to aversive procedures by authorities?	Yes	54	22.0
	No	154	62.9
	Don't know	36	14.7
Has your child been restrained? ...secluded? ...physically punished?	Yes	39	15.9
	Yes	33	13.5
	Yes	18	7.3
What kinds of restraint or physical punishment have been used?	Forcefully moved into another room or area	19	7.8
	Being held still for a long time	32	13.1
	Placed in a locked room	23	9.4
	Hair pulling	7	2.9
	Slapped or pinched	5	2.0
	Withholding meals or drink	6	2.4
	Force feeding	6	2.4
	Having hands or feet tied	6	2.4
	Tied in some other way	13	5.3
	Dressed in special clothing which prevents free movement	11	4.5

	Dressed in pressure clothes against his/her own will	4	1.6
Some other restraint or physical punishment not listed above	Reported examples: tied with a rope, pressure blanket, fed pepper, jostled, "I believe it was witchcraft"	9	3.7
What is the maximum time your child was secluded for?	Less than 5 minutes	3	1.2
	5-30 minutes	11	4.5
	1-3 hours	5	2.0
	More than 3 hours	7	2.9
	Don't know	12	4.9
If your child has been secluded, where was the child secluded?	In a special seclusion room	7	2.9
	In an office within the facility	5	2.0
	In another area of the facility	22	9.0
	Examples: corridor, stockroom, own room, empty class, bathroom, small cabinet without windows		



Table 2

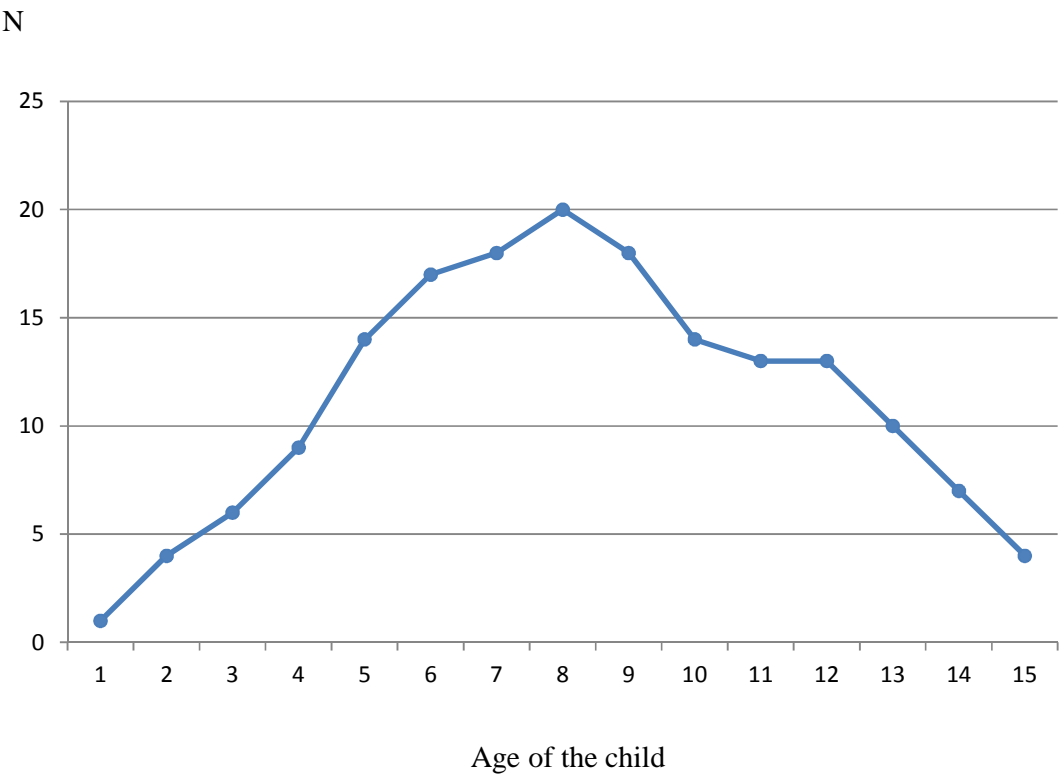
*Use of restraints, seclusion and aversive procedures in the subgroup of respondents reporting the use of some form of coercion (n = 54)*

Item	Response option	N	% of total responses
If coercive measures have been used, when were they used?	2013	18	38
	2012	29	62
	2011	25	53
	2010 or earlier	34	72
When coercive measures were used, how old was the child?	0-3	9	19
	4-6	22	47
	7-9	28	60
	10-12	19	40
	13-15	10	21
If coercive measures have been used in school or day care, where exactly?	General education classroom	1	2
	Special education classroom	12	24
	Both general and special	0	0
	Special school	18	33
	Day care	5	10
If coercive measures have been used in residential services, where exactly?	Housing unit	3	8
	Institution	16	33
	Somewhere else	3	4
If coercive measures have been used in the day care services, where exactly?	Day care centre	10	23
	Sheltered workshop	0	0
If your child has been restrained, secluded or subjected to aversive procedures, which of the following individuals have participated in it?	A special education teacher	19	40
	An administrator	1	2
	A general education teacher	1	2
	A personal assistant	18	38
	A psychologist	0	0
	A therapist	0	0
	Somebody else	29	60
	Reported examples: nurses in institution or boarding house, day care staff, taxi driver		
What have been the consequences of coercive measures?	Physical injury	6	11
	Physical pain	10	19
	Emotional trauma	18	33

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If your child has been restrained, secluded or subjected to aversive procedures, how often have you been informed in writing?	Always	8	15
	Usually (50% to 99% of the time)	4	8
	Rarely (less than 50% of the time)	6	15
	Never	32	62
If your child has been restrained, secluded or subjected to aversive procedures, have you given written consent?	Yes	12	22
	No	38	70
	Don't know	4	7
Has there been a written behaviour improvement plan based on an individual assessment of the occurrences of the problem behaviour?	Yes	9	18
	No	34	70
	Don't know	6	12
Has the coercive measure used been included in the child's IEP?	Yes	11	23
	No	34	71
	Don't know	3	6
Have you complained about the use of coercive measures to the authorities?	Yes	14	28
	Reported examples: director of the unit, police		
	No	37	73

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*Figure 1.* Instances of the use of restraint, seclusion and aversive procedures in different age groups of children with developmental disabilities