

Research Article

15-year Follow-up of Abused Children Admitted in a Child Welfare Center, Western France

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ABSTRACT

Objective: The aim of our study was to describe the pathways and the long-term outcome of abused children placed in a Child Welfare Center and to identify factors influencing their outcome.

Method: One hundred and twenty-eight children admitted in a Child Welfare Center of Maine-et-Loire, Western France, were included in a catamnestic survey conducted from September 2011 to June 2013. The study focused on the different children pathways in and out the Center. Various medical data were recorded: mental health, socio-administrative and educational data.

Results: The admission of the children was due to psychological violence in 65 cases (50.8%), physical violence in 32 cases (25%), severe negligence in 14 cases (11%) and sexual abuse in 2 cases (1.6%). Forty-six percent of the children had at admission a delayed growth rate which was caught up

in half of the cases at the end of the study. Children's Global Assessment Scale (CGAS) designed to measure disturbance severity in children, showed non-significant improvement between admission and end of follow up. Their ways a delay between detection and admission of children. Most of them suffered from physical disabilities and mental disorders.

Conclusion: Our survey provides the first description of child abuse in the French department of Maine-et-Loire. Child abuse is a serious public health problem often underestimated in France. It can be improved through better detection of children at risk, access to broader educational measures and recourse to trusted adults.

MeSh Headings/ Keywords: Child abuse; Toxic parents; Mental disorders; Early detection; Aggregate social integration scale; Broad Educational measures; France.

Learning Points

'What is already known on this topic'

- Delays in detection and placement of abused children is known to affect their emotional, psychological and educational becoming.
- Children usually came from "toxic" families with psychological and physical violence and there was a delay in the admission at the Child Welfare Center.

'What this paper adds'

- Our survey provides the first description of child abuse in the French department of Maine et Loire and pleads for an improvement of the French Child protection Policy.
- Trusted adults can counteract the influence of toxic families as they provide mentorship, stability and direction to young adults. They should be more largely used.
- Child welfare services can be improved by a better detection of children at risk of abuse and by a shorter delay between detection and admission.

Introduction

Recent studies in high income level countries have shown that from 4% to 16% of children were at risk of child abuse, psychological violence and educational deficiencies [1,2]. In the United States, \$20 billion are spent annually to face this public health problem [3].

In France 297,250 children under 21 years old benefited from a child welfare measure in 2012 [4]. They were placed in different children's institutions or followed by social workers. Delays in detection and placement of abused children may affect their emotional, psychological and educational becoming [1,5]. As early as 1945, Spitz et al. have described the potential effects of early placement on the emotional deprivation of children [6], although this still remains a debated question [7]. Despite of the high social burden and cost of child abuse, there is little data concerning this issue in France.

The aim of our study was: (1) to describe the pathways and long-term outcome of children placed in a child welfare center; (2) to identify factors influencing their outcome.

Methods

Sample and procedure

Our study was commissioned by the Maine-et-Loire local government, Western France. The research was funded by the National Monitoring Centre for At-risk Children (ONED), the French Psychiatric and Mental health foundation and the 'Fondation de France'.

One hundred and twenty-eight abused children admitted in the Child Welfare Center of Maine-et-Loire, Western France were included in a catamnestic survey conducted from September 2011 to June 2013.

The follow up of the children concerned their different pathways: their stay in the Welfare Center as well as their placement in foster care families.

A survey protocol was set up to record medical, social, administrative and educational data.

The survey was administered by a professional staff of Angers University Hospital including a child psychiatrist, a psychologist and public health physicians. One of these professionals worked in the vicinity of the children for more than twenty years. Additional data was collected from social workers or foster families.

Informed consent

The recruitment and consent procedures were approved by the French Human Subjects Committee (CCTIRS n°910183) in agreement with the National Commission for Data Protection and Liberties (CNIL-Decision DR-2010-325). In each case, ethics approval was obtained from the family or an entitled person.

Inclusion criteria

The subjects were recruited among children under 4 years

old, placed from 1994 to 2001 in the Child Welfare Center of Angers.

Non-inclusion criteria

- Children who stayed less than three months in the Child Welfare Center (lack of longitudinal data)
- Children born anonymous (childbirth "sous X") waiting for adoption, as their follow-up would be difficult
- Children who had already left the Maine-et-Loire when the survey was conducted in reason of incomplete data

Evaluation criteria

- Evaluation of the socio-economic background at admission (T1) and exit (T2) from the Child Welfare Center
- Evaluation of the medical evolution of the children between T1 and T2, special attention being paid to mental disorders

Diagnostic assessment

A survey protocol was elaborated at the University of Angers. Evaluation was done at T1 (admission in the Maine-et-Loire Child Welfare center) and T2 (exit from the Child Welfare Center or, for most of them, from foster families).

This evaluation was particularly based on the CGAS scale (Children's Global Assessment Scale) adapted in French by Boyer et al. [8-12]. This scale was developed to measure the severity of mental disorders among children aged 4 to 16 years old. The CGAS scale assigns a score ranging from 1 to 100 to rate the general functioning of children in various areas (at home, at school and with peers).

It takes in account psychological, social and academic achievement. A score above 70 is considered in the normal range while a score of 50 or less calls for an intervention [13]. Under 4 years old, the PIR-GAS scale - Parent Infant Relationship Global Assessment - was used to evaluate relationship between parent and child [14].

Mental disorders were divided in four main groups: mood, behaviour, anxiety and other trouble [15]. Parental acceptance of the child placement was evaluated.

An aggregate social integration scale was built to evaluate the social integration of the children. Four favorable prognosis factors were identified: (1) absence of mental disorder; (2) CGAS score higher than 70; (3) good academic achievement; (4) a pathway including less than four foster care placements.

The concept of "toxic parents" referred parents who did not respect the ability of their child to flourish and find their own way. They refused to "recognize" them as they are [16].

Pregnancy denial was defined as "a woman's lack of awareness of being pregnant" [17]. "Affective denial" indicated a woman awarded of her pregnancy but behaving at certain times as if she was not pregnant [18].

Statistical analysis

Quantitative variables were expressed as mean \pm standard deviation (median and interquartile range if the normality assumption could not be verified). Qualitative variables were described by numbers and corresponding percentages. Data were analyzed using the SPSS software (version 21 IBM Corporation® 1989-2012). In case of missing data, no imputation was performed. Statistical analyses were performed on pre-established analysis design.

Results

Children characteristics at admission

From 1994 to 2001, 154 children under four years old were admitted in a Child welfare center situated in Angers, France. Twenty-six children were excluded from the study: thirteen were born anonymous (childbirth “sous X” according to the French Law) and were waiting for adoption. Eleven had a stay of less than 3 months in the Child Welfare center and two had left the Maine-et-Loire department.

One hundred and twenty-eight children were included in our study: 59 girls and 69 boys (Figure 1). Upon admission in the Child Welfare Center, forty-four of them (34.4%) had less than one year, twenty-six (20%) had between one and two years, twenty-six (20%) had between two and three years and thirty-two (25%) were over three years old.

These 128 children were issued from 100 families. Seventy-seven families had one child placed [19], families had 2 children placed, 3 families had 3 children placed and one family had 4 children placed.

Twenty-one children (16%) were premature. The mean birth weight of the children was 3100 g. Thirteen children (10.2 %) had a birth-weight of less than 2500g.

Reason of admission

The admission of the children was due to psychological violence in 65 cases (50.8 %), physical violence in 32 cases (25%), severe negligence in 14 cases (11%) and sexual abuse in 2 cases (1.6%). In 18 cases (4 girls and 14 boys) there was an association of physical and psychological violence.

Legal context

Out-of-home admission fell under the French Child Protection Act of March the 5th, 2007. It comprised educational neglect (96 cases, 75%), safety condition (79 cases, 61.7%), healthy condition (63 cases, 49.2%), physical, emotional, social or intellectual development (57 cases, 44.5%) and educational neglect (16 cases, 12.5%). Education flaws without maltreatment were involved in 14 cases (10.9%).

Family background

A mean of 3.9 ± 1.8 children was present per family (with a range of 2 to 11 children). Before admission in the Child Welfare

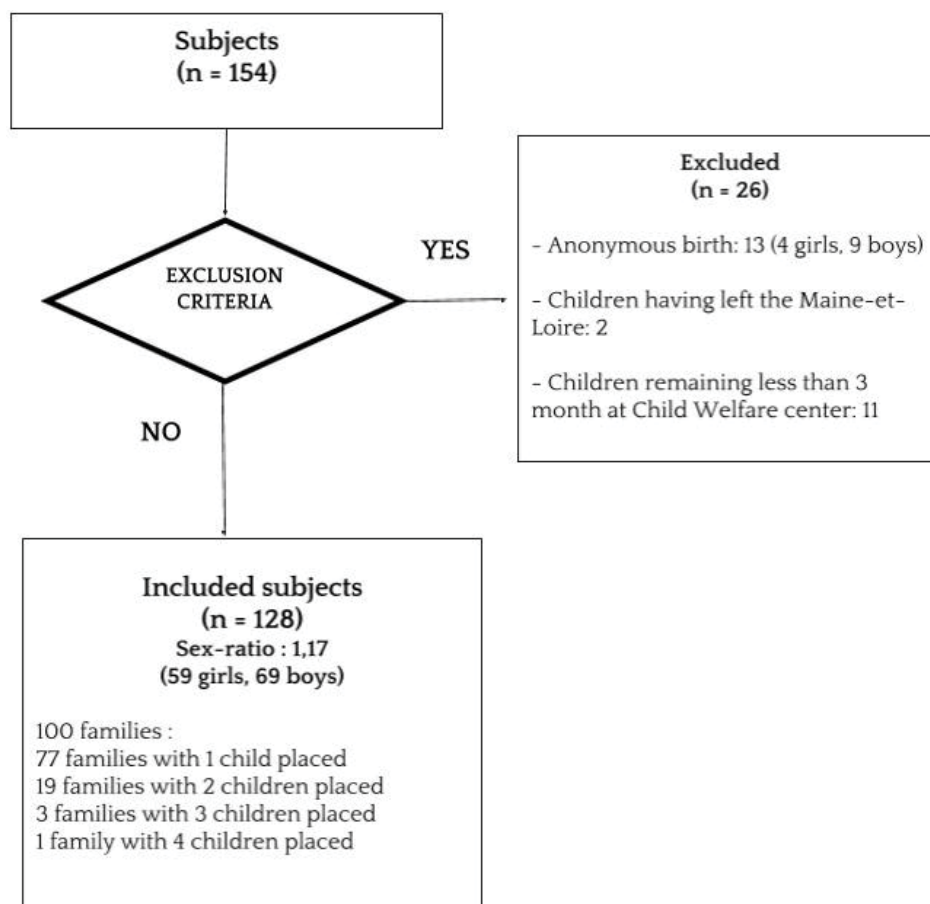


Figure 1: Flow Chart of the study. Children under four years admitted from 1994 to 2001 at the Maine-et-Loire Child Welfare Center.

Center, 70 children (55%) lived with their parents. Thirty-eight (29.7%) came from a host structure (foster care, mother-and-child center, trusted person). Ten (7.8%) were newborn and nine (7%) were hospitalized in a Pediatric Ward prior to admission.

Fifty-nine children were brought up by a single parent: mother alone for 55 children living in 45 families, father alone for 4 children living in 2 families. Fifty-two children issued from 38 families had both parents. Seventeen children had a stepfamily (13 children from 12 families) and 4 lived in host families. Thirty-two children (25%) were of unknown paternity, five (4%) were motherless children and four (3%) were parentless children.

Affective parental deficiency was noted in 41 cases (32%), mental or physical violence between couples in 70 cases (55%).

Living conditions

Precarious living conditions were reported in 41 cases (32%) with housing problem in 20 cases (15.6 %). In 15 cases (11.7%) one of the parents was imprisoned.

Pregnancy denial

Eight pregnancy denials (6.3%) were found but were not

significantly associated to the mental disorders of the mother (52% vs. 54%). An "affective denial" was found in nine cases (7%)

Parents' adhesion to the admittance decision

Parents' adhesion to admittance decisions was poor. 47 fathers out of 74 (63.5% of them) were opposed and only 4 fathers (5.4 %) fully accepted the admittance decision. Mothers were slightly less reluctant to admittance: 30 mothers (33%) accepted the admittance decision without restriction whereas 51 mothers (56%) were openly opposed.

Children trajectory within the child protective service

Siblings: Seventy-two out of the one hundred families had a sibling. Sixty-six had already been identified as "at-risk of abuse" families by social services. Admittance measures were taken only in 43 cases.

Delay: An average delay of 13.1 ± 13.4 months was noted between the identification of child abuse and child admittance (Table 1).

At the end of the survey (T2), 69 children (54%) were placed in foster families. 39 children (30.5%) went back to their

Table 1: Social and family characteristics of the 128 children at entrance and exit of Child Welfare center.

At Child Welfare Entrance	N (%) or means (\pm standard deviation)
Age (years)	1.4 \pm 1.25
Sex	
Girls	59(46.1%)
Boys	69(53.9%)
Families	100
-Single ton infants	28
-Child with sibling	72
Proportion of children placed in the family	250/286
Single parent family	47 (47%)
Single-father families	2
Single-mother families	45
Premature babies	22(17.2%)
Pregnancy denial (partial denial)	8 (62.5 per 1,000births)
Affective denial	9
Healthy appearance	94 (73.4%)
Mental disorders	114 (89.1%)
Evaluation at the end of the survey*	N (%) or means (\pm standard deviation)
Age (years)	15.2 \pm 4.8
Follow up (years)	13.2 \pm 4.6
End of follow up before ten years old	17
-if so, age(years)	4.8 \pm 3.6
Only child (singleton)	10(7.8%)
Ongoing child protection measures	52(40.6%)
End of placement in the welfare center:	
-Expiry of the legal measures	42
-Judicial release of safeguard measures ("mainlevée")	33
* Measure impossible to apply	4
* Legal majority reached	2
*Inadequate measure	22
*Others	5

*children being in the child welfare center or in foster families

original families and 18 (14%) were entrusted to an institution or a specialized foster care. Two children (1.6%) were assigned to a trusted person.

An average of 4 ± 3.4 placements per child was found with a range from 1 to 20 placements.

Among the 128 children under four years old admitted in the Child Welfare Center, 17 (13%) left the child welfare service before reaching ten years old. Eighty-three children (64.8%) had successive placements in different structures and forty-five children (35.2%) benefited from a single placement. Eighty-four (65.6%) were assigned to a trusted adult.

Among 49 subjects (38% of the cohort) who attained the age of legal majority (18 years old), 24 (49%) required a psychiatric expertise. Eight of them benefited from an adult protection measure (guardianship or trusteeship) and nine received a Disabled Adults' Allowance.

Outcome

Child psychiatric diagnosis and evolution between T1 and T2: There was no significant correlation between PIR-GAS or adapted CGAS scores at admission (T1) and social integration at the end of the follow-up (T2) ($p > 0.05$).

At T1, one hundred and sixteen children suffered from mental disorders. Ninety-eight still showed mental disorders at T2, 14 ± 4.5 years later. Seven children out of 8 without mental disorder at T1 acquired mental disorders at T2. Predominant mental disorders at admission were behavioral and mood disorders (respectively 44 (37.5%) and 30 (25.8%) out of 116 cases). At T2 behavioral and mood disorders concerned respectively 57 and 23 out of 98 cases. Fifty-two percent of children with a $CGAS < 50$ at T1 benefited from a scale improvement at T2, though this improvement was not significant. For 11 children (7%), the CGAS scale evolved unfavorably between T1 and T2;

School achievement: Out of the hundred and twenty-eight children, ninety-one attended high school, with a complete curriculum in 40 cases (44%) and a partial curriculum in 35 cases (38%). Thirty-eight children (42%) left school without any diploma.

Out of the remaining 37 children (28.9%) without regular school attendance, 17 presented behavioral disorders, 7 experienced school absenteeism, 6 suffered from physical disability and 7 from mental health problems.

Factors influencing the outcome: Children who suffered physical or sexual abuse prior to their placement did not present more mental disorders than the others ($p = 0.37$). Physical or sexual abuse was not associated significantly with a change in the CGAS score between T1 and T2 ($p = 0.21$).

The initial CGAS score was significantly lower among children placed in foster care or followed by a trusted adult (CGAS score of 39.5 ± 15 and 39 ± 8 respectively) compared to those placed in institutions or who returned in their original families (CGAS score of 47 ± 8 and 42 ± 13 respectively, $p < 0.01$).

Children ($n = 25$) having a low CGAS score (32 ± 13) at T1 developed more mental disorders at T2 ($p < 10^{-3}$).

Overall evaluation

Ninety-six (77%) young adults had persistent mental disorders after leaving the Child Welfare Center with a CGAS score under 70. Fifty-one (40%) had a chaotic social course with iterative admittance in different social institutions.

An Aggregate Social Integration Scale was built on the basis of four favorable prognosis criteria: (1) absence of mental disorder; (2) CGAS score higher than 70; (3) good academic achievement; (4) satisfactory pathway with less than four foster care placements.

After leaving institutional care, three or four positive criteria enabled a favorable prognosis whereas one or two criteria indicated poor social and professional integration.

Sixty-nine children (54%) in our cohort had a good prognosis whereas fifty-nine (46%) had not. That was particularly true for 17 of them (13%) who had only a single positive criterion.

Nine out of ten children with one or two criteria were unable to achieve social integration ($p < 0.006$).

Delay of admission

Absence of delay between risk identification and admission in the Child Welfare Center of the children was an essential condition of success. A delay inferior to 10.3 ± 11.9 months enabled a favourable issue ($p = 0.03$) whereas a delay greater than 15.4 ± 14 months proved to be a cause of bad integration.

Discussion

This survey provides the first description of child abuse in the French department of Maine-et-Loire.

Brief overview of the French Child Protection policy

On November 20th, 1959, France signed the United Nations' Declaration of Children's Rights.

The French Child Protection system is ruled by three essential Acts:

- Act No. 1989-487 of July 10, 1989 dealing with prevention of child maltreatment
- Act No. 2004-1 of January 2, 2004 concerning care and protection of children
- Act No. 2007-293 of March 5, 2007 amended the 1989 Act on the role of child protection in France.

The French Child Protection system is managed by the Child Welfare Authorities under the control of a children's judge. Most of children are placed after court orders in foster families.

In 2006, the French institutions included [19]:

- 199 Departmental Childhood Centers hosting 9,879 minors.
- 1,126 Social Houses hosting 41,800 minors.

- 17 Child Welfare Centers hosting 900 minors. 30.1% stayed more than 5 years, 23.3% two years and 19.3% less than a year.

Child Welfare Centers host children requiring long-term placement. They are managed by social educators who allow the children to benefit from a family-life style environment. The children are placed under court order by the children's judge (February 2, 1945 Act) [20].

Family structure

In France in 2005, Chardon et al. [21] found 17.5% of single mother families and 15% of single fathers. In our cohort, there was 45% of single mothers and 2% of single fathers.

Pregnancy denial

Our survey revealed a pregnancy denial rate of 62.5 per 1,000 births. In comparison, Pierronne et al. found in 2001 a pregnancy denial rate of 3.7 ± 0.84 per 1,000 births in the French general population [22].

The correlation between pregnancy denial and mental disorders was present in 50% of the cases in our survey compared to 20% in a study by Chaulet et al. concerning 75 mothers in a French University' Hospital [23].

Premature Births/ Birth weight

There were 17% premature births and 43% of new-born with a birth weight of less than 3,000 g compared to 7% of premature births and 28% of new-born's in the French general population [24].

In our study, no statistically significant relationship was observed in children having a low birth weight and mental disorders either at T1 or at T2. This contrasts with a longitudinal study by Nomura et al. [25] conducted in the general population which found a significant increase of disorders such as depression (RR = 10) or social inadequacy (RR = 9) in children having a low birth weight and suffering from maltreatment in childhood.

Mental disorders

A significant proportion of children had mental disorders at T1 and T2 (90% and 72% respectively). Comparatively, the prevalence of mental disorders among children in the French general population was estimated to 12.4% in a study conducted in 1994 [26]. International studies on mental disorders in foster children showed a percentage of mental disorders ranking from 45 to 60% [27-29]. Most of children admitted at the Child Welfare Center were babies (mean age of admission of 1.4 ± 1.25) with proven risk of abuse or maltreatment. Parental opposition to admission decision explains in part our data. Children who suffered from physical or sexual abuse prior of their admission did not present more psychiatric disorders than the others.

The prevalence of mental disorders at T2 was higher than that reported by other authors [30,31]. In a French study, Bronsard found 28% of anxiety disorders against less than 5% in our study [32]. The dramatic condition of the children at admission in our study explains this discrepancy. It is also due to our

method of investigation, close to casuistry. This is consistent with the high proportion of social adjustment disorders found among children attaining 18 years old: 17 out of 49 were placed under guardianship or were hospitalized for mental disorders.

Pathway length and family connection

The pathway and length-time spent by the children in the Child Welfare Center – or in another institution (foster families, trusted persons) – is difficult to evaluate in France [33]. In our cohort, half of the adolescents did not reach eighteen years old at the end of the study. The mean age of adolescents at discharge was 16.77 ± 2.2 years. The number of children who benefited from a safeguard release before 18 years old was thus underestimated. Two thirds of children in our study were placed under the responsibility of a trusted adult.

School failure

Sixty-four percent of children under the age of 15 repeated school years. This is higher than the average percentage of school years repetition in France which amounts to 39.5% and is one of the highest in the OECD countries [34].

According to Coohy et al., poor performance in literacy and numeracy tests are correlated with severity and chronicity of child abuse [35].

Conflict of Interest

The authors declare no conflicts of interest regarding this study.

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