

## Child Physical Abuse in Northern Greece: A Retrospective Study Based on Forensic Protocols

Elisavet Antoniadou<sup>1\*</sup>, Theodoros Dardavesis<sup>1</sup>, Evangelos Pavlou<sup>2</sup> and Eleni Zaggelidou<sup>3</sup>

<sup>1</sup>Laboratory of Hygiene, Medical School, Aristotle University, Thessaloniki, Greece

<sup>2</sup>2nd Pediatric Clinic, AHEPA University Hospital, Medical School, Aristotle University, Thessaloniki, Greece

<sup>3</sup>Forensic Public Service, Thessaloniki, Greece

\*Corresponding author: Elisavet Antoniadou, Laboratory of Hygiene, Medical School, Aristotle University, Egnatia 5 Street, GR-post code 59100, Veria, Greece, Tel: (+30)6974611231; E-mail: [elsaantoniadou@yahoo.com](mailto:elsaantoniadou@yahoo.com)

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### Abstract

The aim of this study was to emerge the problem of child physical abuse in northern Greece and to highlight the characteristics of the children that are in danger, as few relevant studies have been conducted in that area so far.

**Methods:** A retrospective study was designed based on data that derived from the Forensic Service of Thessaloniki, through the period 2005-2015. The archive was in paper form and included allegations of physical abuse related to children.

**Results:** 90 consecutive incidents were totally recorded during this period. The age of the child related to offender's sex ( $p=0.001$ ) and male offenders abused frequently older children, in contrast to women whose victims were usually young children. A significant relationship found between the gender of the offender and the existence of domestic violence ( $p=0.037$ ) and in most cases, the male offender abused not only the child but also the other members of the family. Fatal incidents of severe physical abuse were associated to the age of the victim ( $p=0.002$ ), the psychiatric profile and the use of prohibited substances by the offender ( $p=0.023$ ). Young children, whose parents suffered from a psychiatric disease or they were drug users, had greater chance to die from an injury.

**Conclusion:** The small number of the allegations attributed to the fact that most cases of physical abuse are unreported and usually end up in hospitals and less to the police and the Forensic Services. Although the majority of the variables that were studied agree to the literature, further research in large study population is recommended, in order to define the characteristics of the children that are in danger in Greece. Actions are required at all levels of prevention, emphasizing to the early detection of the problem and the effective management.

**Keywords:** Child; Physical abuse; Forensic service

### Introduction

Child abuse is a complex problem of major importance for public health. In the middle of the last century, the severity and the extent of the problem mobilized policy makers and scientists to approach and emerge the importance of protecting children's rights. Child maltreatment can take many forms and commonly is divided into four categories: sexual, physical, psychological abuse and neglect [1,2]. It is not rare some children to experience more than one of the above forms of violence. According to World Health Organization, physical abuse is defined as the intentional or non-accidental harm on a child by a parent or other caregiver [3].

In Greece, corporal punishment is rooted in outdated pedagogical concepts that prevailed during time by the rampant discipline tactics of teachers. These pedagogical concepts contributed to the prevalence of a general social perception on children's education for all subsequent decades of the 19th century [4]. By signing Greece and other member states of the World Health Organization (WHO) the United Nations (UN) Convention on the Rights of the Child (1989), begun a series of policies, laws and social actions that aimed to defend children's rights,

as a citizen [5]. More specifically, the UN Convention was adopted and ratified by the Greek Parliament in 1992 and since then is a state law. However, only in 2006 was passed by the Greek parliament law, which prohibits corporal punishment and punish the perpetrators [6].

Furthermore, the absence of a stable and reliable recording system in Greece, makes the epidemiological investigation of the phenomenon difficult or impossible. Therefore, the number of children who are abused has long been underestimated, whereas few relevant studies have been conducted [7-9].

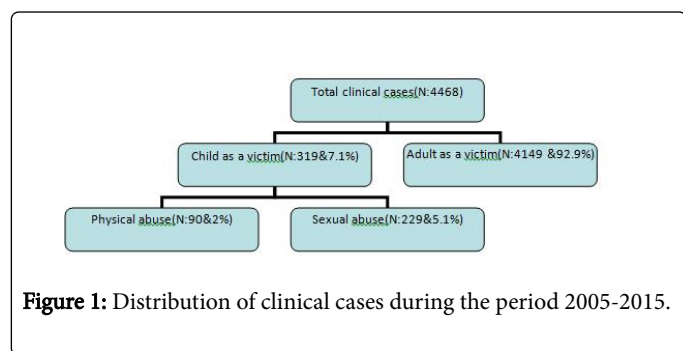
The aim of this paper is to emerge the problem in northern Greece and its extent, by gathering and analyzing epidemiological data from the Forensic Service of Thessaloniki that are related to child maltreatment. Furthermore, attempts to highlight the particular characteristics of the children that are in danger and their families.

### Materials and Methods

A retrospective study was designed based on data that derived from Forensic Service of Thessaloniki. The service founded in late 2004 under the auspices of Ministry of Justice and approximately, covers a population of 1,200,000 inhabitants.

The archive is in paper form and includes accusations from all prefectures of Central Macedonia-Greece except of the prefecture of Chalkidiki and the area of eastern Thessaloniki. These prefectures are covered by the Department of Forensic Medicine and Toxicology of the Medical School of Aristotle University of Thessaloniki and the full access to their archive was not feasible.

The study includes cases of children that were examined in Forensic Service, from January 2005 to December 2015. During this period 4468 clinical cases were investigated by the Service, from which 319 cases were related to children. The majority of the complainants associated to child sexual abuse and only 90 cases related to physical child abuse (Figure 1). Specific variables and characteristics were studied and processed with SPSS program. Due to the small number of physical abuse incidents, it was difficult to establish strict entry and exclusion criteria to the investigation. More specifically, the study included allegations whose the age of the victim was less than 18 years old and the offender was the caregiver of the child. Cases in which the perpetrator was underage or not familiar to the child were not included.



**Figure 1:** Distribution of clinical cases during the period 2005-2015.

The research methodologically has the shortcomings and the disadvantages of the retrospective studies. Consequently, many of the data were not always recorded, and several variables were absent. However, because of the well organized and reliable recording system that exists in the Service, many important outcomes were extracted.

## Results

90 consecutive incidents were totally recorded during the period 2005-2015, of which 49 (54.4%) were males and 41 (45.6%) females. The average ages for both sexes was 9 years (Mean: 9.06, SD: 4.67 for boys and SD: 5.37 for girls), while the median was 10 years (Median: 10, Range: 0.1-18). The ages between males and females did not differ significantly ( $p=0.942$  Mann-Whitney Test), as well as between children Greek and foreigners or Roma ( $p=0.934$  Mann-Whitney Test). The average age was 9 years (SD:  $\pm 4.9$ ) for both Greek children (N:61 and 67.8%) and foreigners or Roma (N:22 and 24.4%).

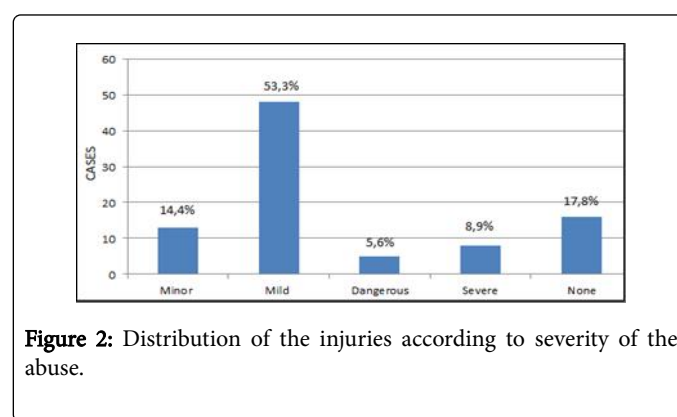
In 85.9% (N:67) of the cases, the victims had permanent residence in the prefecture of Thessaloniki and 14.1%(N:11) elsewhere in the geographic region of Central Macedonia-Greece.

In most cases, the complainant was the victim's mother (N:41 and 51.3%), in 17.5% (N:14) the father and in 15% (N:12) the hospital personnel. In addition, there was a small number of cases in which the complaint was made by people outside the family framework (N:8 and 10%) and in five cases by both parents.

In the majority of cases (N:62 and 82.7%) the incident was reported within five days from the day of the event. Normally after this period,

the mild and indicative signs of physical abuse are healed and it is extremely difficult to identify them.

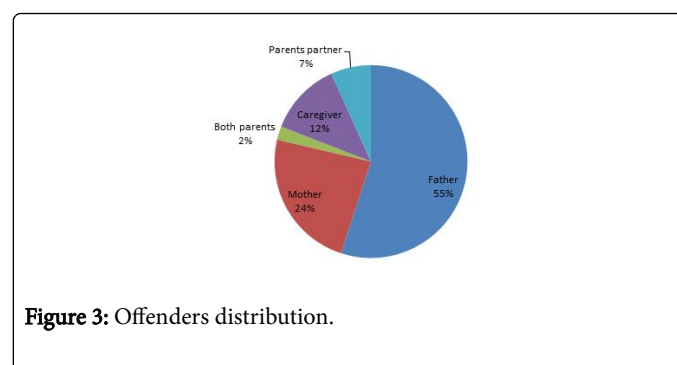
The forensic examination revealed in 82.2% (N:74) of children physical injuries that could be attributed to abuse, while in 17.8% (N: 16), the examination did not reveal any obvious injury. The majority of cases related to simple and mild injuries (N:48 and 53.3%), while the 14.4% (N:13) of cases to minor injuries. 5.6% (N:5) and 8.9% (N:8) of the incidences were related to dangerous and severe injuries, respectively. As "severe" were identified injuries that threaten children's life, or a weapon with potential to cause serious injury, such as a knife, gun or bat had been used [10-12]. It is important to mention, that the majority of severe injuries resulted in the death of the victim (62.5% and N:5), and the children who survived manifest heavy residual damage (Figure 2).



**Figure 2:** Distribution of the injuries according to severity of the abuse.

The injuries, mainly, were caused by a fistcuff or a slap (N:47 and 52.2%) and by using an object (N:28 and 31.1%). Furthermore, in four cases the victim was kicked and in two cases, neglect was the main way of harming the child. In cases in which an object was used by the offender, that was usually blunt (N:23 and 46.8%), such as wood, cable, or solid surface, like the floor and the wall. In five (13.2%) cases were used sharp objects by the offenders, such as knives and glasses.

Regarding offenders characteristics, the majority of the complaints are referred to males adults (N:60 and 68.2%), although there was one case in which the offender was a girl who had the role of caregiver.



**Figure 3:** Offenders distribution.

In most cases, the offender related to one of the parents (77.7%), with the father (N:49 and 54.4%) to be involved more often, in contrast to mother (N:21 and 23.3%). In two (2.2%) complaints the abuse related to both parents, in 11(12.2%) cases the caregiver (teacher, nanny), while in six (56.7%) cases the offender was parent's partner (Figure 3).

Studying the available data (N:60 and 66.7%), the 55.0% (N:33) of the children were lived with one parent and 40% (N:24) of them with both parents. Three (5.0%) children lived in an institution. In single parent families, most children were lived with their mother (N:27 and 87.1%) and in 12. 9% (N:4) with their father. The most common cause of single-parent families (N:28 and 81.3%) was the divorce. In five (15.6%) cases, the children were lived in a single parent family, because they were not recognized by their biological father and in one (3.1%) case due to parent's death.

According to study, five (5.6%) cases of severe abuse had as a consequence children's death. Specifically, three children died because of severe head injury, one due to suffocation and another one due to severe dehydration and neglect. In one case, the victim suffered along from both physical and sexual abuse. The majority of the offenders were male adults (N:3 and 60.0%) while were recorded two cases (40.0%) in which the offender was child's mother. It is important to mention, that in three deaths, the caregiver of the victim had visited earlier a health institution, claiming symptoms that could be attributed to victims physical abuse. Correlations of the victim's age with other variables (Table 1).

Variable	Age in years, mean(SD)	P-value†
Hospitalization (Y/N)	6.4 (1.2)/9.3 (0.7)	P=0.033
Child's death (Y/N)	1.9 (1.3)/9.5 (0.5)	P=0.002
Offender sex (M/F)	10.4 (0.6)/6.7 (0.8)	P=0.001
Acceptance (Y/N)	10.7 (0.5)/5.7 (1.8)	P=0.005
Childs sex (M/F)	9 (0.7)/9 (0.8)	P=0.392
React (Q/L)	9.7 (0.6)/9.2 (1.3)	P=0.162

**Table 1:** Baseline characteristics of physical abused children.

Child's age is not related to the disclosure of findings during the forensic examination (p=0.392 Mann-Whitney Test), nor to time of asking for medical help (p=0.162 Mann-Whitney Test). In contrast, the hospitalization of the victim is associated with the age (p=0.033 Mann-Whitney Test). Therefore, younger children were more likely to be hospitalized when they were examined.

As it was expected, child homicide is associated with the age of the victim (p=0.002 Mann-Whitney Test). Thus, younger children were more likely to die from an injury. Furthermore, the age of the victim is not connected with the number of the offenders (p=0.161 Mann-Whitney Test).

The age of the child seems to be related to the offender's sex (p=0.001 Mann-Whitney Test). Male offenders abuse frequently older children, in contrast to women whose victims usually are young children. This outcome was also found in single parent families, in which the age of the victim is related to the sex of the parent who has custody (p=0.039 Mann-Whitney Test). Therefore, younger children are abused physically more often when they live with their mother, instead of older children.

The age of the victim was found to be related to the acceptance of the abuse by the child (p=0.005 Mann-Whitney Test). On the other hand, older children accept more often the event, instead to younger children.

## Correlations between qualitative variables

The psychiatric profile and the use of prohibited substances from the offender seems to associate with the fatal outcome of the abuse (p=0.023 Fishers Exact Test, Chi-Square). In two cases, in which the information was available and the abuse lead to child's death, the psychiatric profile of the offender was pathologic.

Based on our results, seek for medical help is significantly related to the number of offenders (p=0.023 Fishers Exact Test, Chi-Square). Thus, when there was one offender, the victim more often visited a healthcare institution (84.8%), in contrast to cases where the offenders were more. In addition, seek for medical help, shows a significant relationship to the residence of the child (p=0.021 Pearson Chi-Square). Children who lived within the prefecture of Thessaloniki were examined more often (72.7%) from a health worker.

Additionally, seems to be a significant relationship between the gender of the offender and the existence of domestic violence (p=0.037 Fishers Exact Test, Chi-Square). Male offenders abuse more frequently (77.5%) the other members of the family (brother/mother). The abuse of the other members in the family is related to the acceptance of the incident from the victim (p=0.033 Fishers Exact Test, Chi-Square), whereas to the repetition of the abuse in the past (p=0.0001 Fishers Exact Test, Chi-Square). Thus, 87.9% of children who confirmed the abuse, report stimulatingly abuse of another member in the family. At the same time, the existence of domestic violence is confirmed in 93.3% of cases, in which repetition of the episode in the past was denounced.

## Discussion

The current research revealed only 90 incidents of children that were physical abused. This small number could be attributed to the fact that most cases of physical abuse in Greece are unreported and usually end up in hospitals and other welfare institutions and less to the police and the Forensic Services. The prevalence of child abuse varies widely. Estimations depend on the country, the method of the research that is used, the quality of surveys that request self-reports from victims or caregivers and the quality of official statistics. International studies reveal that a quarter of all adults (23%) report having been physically abused as children [3]. Applying these results to the population of children in Europe, WHO suggests that 44 million of children suffer from physical abuse.

According to the age of the victims in our research, the average age is 9 years old (the mean for both sexes), in contrast to Children's Bureau of the United States (U.S.) Department of Health and Human Services (2013) , that estimates that most of victims are at the age of 1 to 2 years [9]. These differences could be attributed to the small sample and the lack of adequate structures for early detection of the victims.

Current literature confirms the correlation between child abuse and domestic violence. Longitudinal and prospective research has shown a substantial overlap between domestic violence and the most severe forms of child maltreatment [10]. A report from the National Society for the Prevention of Cruelty to Children (NSPCC) in the United Kingdom on child maltreatment, found that 12% of children under 11years old and 17.5% of children between 11-17years had been exposed to domestic violence between adults in their homes during childhood [11]. Furthermore, domestic violence is a factor that is strongly associated with the group of young people who begin offending at an early age and who continue offending as adults [12]. It

is therefore essential to take into consideration domestic violence when exploring child maltreatment.

Regarding child deaths that occurred as a consequence of severe physical abuse, the results of this study are comparable to the current literature. Specifically, WHO reports that worldwide died 31000 children less than 15 years old in the year 2002, as a result of severe child maltreatment, and this number is probably underestimated [3]. It is estimated that for each death, there are between 150 and 2400 substantiated cases of physical abuse [13]. Furthermore, data show inequalities in the European Union (EU) with higher death rates in the east, though the trends seem to decline overall.

## Conclusion

The phenomenon of child abuse is undoubtedly a global problem that appears in all societies, steadily within time, with life-long consequences to the child [14]. Maltreatment causes stress that is associated with disruption in early brain development [15,16]. Extreme stress can impair the development of the nervous and immune systems [17]. Consequently, as adults, maltreated children are at increased risk for behavioral, physical and mental health problems [18].

As the investigation of child abuse in Greece and the interest of the scientific world turned on it only the recent decades, it is apparent that many are needed to be done to combat domestic violence and to address the phenomenon of child abuse [19,20]. Actions are required at all levels of prevention, emphasizing to the early detection of the problem and the effective management [21,22]. For this direction, further research in large study population is recommended, including interventions to address the problem of child abuse in Greece [23]. It is a great need for a holistic management based on the prevention of child abuse and the protection of children and their rights.

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