The dentist’s role in recognizing childhood abuses: study on the dental health of children victims of abuse and witnesses to violence

ABSTRACT

Aim Up to today, little attention and training has been paid, in the Italian dental field, to a dramatically widespread problem, childhood abuse and neglect (CAN). Our research fits into a current of thought on alerting physicians, not only paediatricians, to the problem of abused children. Violence is often part of neglect and carelessness toward children, and it often also concerns their personal hygiene and health care. Aim of our study was to verify the hypothesis that “dental neglect”, intended as a specific form of neglect, is often associated to other types of neglect, and therefore it could represent an important sign in indentifying childhood abuse and neglect situations. These were investigated through the comparison between a group of children with psychological disorder and a control group, as far as their dental health is concerned. Our results indicate that the abused children show: a significantly higher dental plaque index (p=0.02); a higher number of untreated cavities (p=0.004); more evidences of neglect (p = .0002). Additionally, the abused subjects were less cooperative during dental visits (p=0.005). Our data support the hypothesis that the abused children in our group are, both under the hygiene point of view and access to treatment, more neglected by their caregivers.

Key words: Child abuse and neglect; Dentistry.

Materials and methods

The Ethical committee approved the study and the informed consent submitted, which was accepted by all the parents of the participant children. We have enrolled 237 children, of which:

• 52 referring to the Neuropsychiatric Unit of the Paediatric Hospital Bambino Gesù in Rome, affected by psychological discomfort for being witness of violence or being themselves directly involved (Abuse Group);

• 65 subjects referring to the same Hospital for Eating Disorders (ED Group);

• 120 subjects without any apparent psychological discomfort and contacted at school (Control Group).

Our sample was composed of 83 males and 154 females, median age 10.5, and SD of 3.6. It was decided to include, in addition to the groups of abused children and without any evident psychological discomfort, another group of children with psychological discomfort with the aim of highlighting that the hypothesized neglect is not due to the child psychological discomfort, but that it can be inserted in an abuse context, often presenting some kind of neglect and carelessness that are beyond violence itself.

Instruments

For each subject a Dental Status Evaluation Form was filled; such form was especially prepared for this research. The status indicators were as follows:

• Plaque index, with values between 0 and 3; of which 0 corresponds to absence of plaque, 1 to separate spots at the cervical margin of the tooth, 2 to plaque covering between 1/3 and 2/3 of the dental crown.
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- Bleeding of the gums (as symptom of gingivitis), evaluated by the dentist during the dental checkup and assessed as absent, spontaneous and provoked.
- Number of decays
- The dentist had the chance, if needed, to add notes on the forms.

Procedure

The abused subjects and/or the witnesses to violence and with ED were contacted by the Paediatric Hospital Bambino Gesù personnel at the time of a checkup visit, and an informed consent was requested from parents to let their children participate in a dental prevention campaign addressed to children. Therefore, the patients underwent a free dental checkup. The group of children without any evident psychological discomfort was enrolled from a primary school in Rome, after having obtained the informed consent from the parents to participate in said prevention campaign. The dental checkups were carried out by a dentist. For each patient was filled the Dental Status Evaluation Form, and the parents were informed if the patient needed additional treatments and controls. The three groups were compared according to gender and age, despite the lack of homogeneity since the ED group was larger than the other two, and composed mainly by females (Tables 1, 2). This is due to the fact that the onset of eating disorders is usually at the first stage of adolescence and that is more frequently found in female subjects. The three groups were compared according to the dental variables, through Chi2 statistical analyses for the category variables and through the analysis of the factorial variance (ANOVA) for the continuous variables.

Results

- With regard to the presence of the plaque (evaluated on a scale from 0 to 3) the Control Group showed a higher number of subjects without significant evidence of plaque. Additionally, the Abuse Group showed a higher number of subjects with plaque on more than 2/3 of the dental crown (level 3). The differences in the frequency distribution within the categories is statistically significant (p = .02) (Table 3).
- With regard to the recording of the gingival bleeding, it was absent in 100% of the subject of the Control Group, while the Abuse Group showed higher values of both provoked bleeding and spontaneous bleeding (Table 4). Such differences are statistically significant (p = .0002).
- With regard to the number of decays, it was recorded with a probe, including also new decays on fillings, and the results showed a significant difference between the groups (p = .0004). Particularly, from the post-hoc analysis, higher values pertain to the Abuse Group, both compared with the ED Group (F = 0.6; p = .05) and the Control Group (F = 0.5; p = .05) (Table 5).

Discussion

The proposed research falls within a current of thought that is spreading at international level. However, it seems that in Italy dentists are not aware of the serious problem of childhood abuse. The violence often falls in a larger context of neglect and carelessness toward children, who often encompasses personal hygiene and health care. The
The results of the research generally indicate that the Abuse Group seems to be characterised by worse dental conditions, thus confirming the proposed hypothesis that parents neglect their children. Indeed, in such group almost 10% of the observed children show a rather high level of plaque (level 3) that covers more than 2/3 of the dental crown, compared to 5% of the ED Group and to less than 1% of the Control Group. Being the score 3 evidence of serious lack of hygiene, it supports the hypothesis that the abused children are neglected under both the hygienic and the oral education points of view.

Additionally, the Abuse Group is characterised by the presence of higher gingival bleeding, both spontaneous or provoked, compared to the ED Group and, mainly, to the Control Group where no bleeding has been noticed for any of the children. Spontaneous and provoked bleeding is considered an index of gingival inflammation. Lacking precise systemic pathologies or the use of specific drugs, we can conclude that the most plausible cause of such inflammation could be the plaque that, as previously said, is significantly present in the Abuse Group.

Finally, each subject of the Abuse Group shows a higher number of decays (an average of 1.4 vs 0.3 of the Control Group, and vs 0.8 of the ED Groups). The presence of decays, especially if multiple, could indicate lack of concern by the caregiver in handling a disease in progress. The data appear very interesting especially in consideration of the fact that abused children have more decays and higher levels of plaque compared to the others; however, despite the obvious need for care, children’s caregivers do not seem to realise the emergency of treatments.

Therefore, such result confirms the hypothesis that carelessness toward abused children is not limited to the oral hygiene, but it is in fact an obstacle to the actual treatments. Besides, a higher percentage of children in the Abuse Group, compared with the other groups, is less cooperative with the dentist; the definition of carelessness given by the dentists confirms the objective parameters of neglect toward the abused children. The lack of cooperation underscores another aspect of the abused patients that is connected to their environment; and can be attributed, as literature suggests, to the conditions of discomfort and suffering experienced.

Researches have evaluated the relationship between abuse and dental care in children victims of violence.

Berger [2004] highlights that income and family structure are in relation with the risk of childhood maltreatment and that, in particular, income seems to impact routine medical and dental care offered to children.

Olivan [2003] evaluated the dental health of 236 Spanish abused children victims of neglect, aged between 6 and 12 years, reporting that more than 50% showed untreated dental problems (decay). According to the author, such percentage is higher when compared to general population and it is due to several individual factors, both within the family and environmental, such as: low socioeconomic status, social deprivation, poor attention to nutrition, scarce concern of dental education, lack of attention toward own oral hygiene.

Greene and Chisik [1995] point out that having experienced an abuse is not to be related in particular with the status of oral hygiene, but with a general lack of parental sensitivity and transmission of preventive behaviours related to dental care, as suggested by the presence of decays in abused children, aged between 3 and 11 years.

We can therefore state that neglect and exposure of the child to violence, often associated with abuse, contributes not only to a scarce oral hygiene but, mainly, hampers access to treatments. Therefore the abused children, according to the literature, suffer more from dental problems and, even at adulthood, they will still have a difficult approach with dental treatments.

Conclusion

The present research confirms the hypothesis that abused children are neglected in their oral hygiene and dental care.

Our aim is to carry on the study in order to evaluate if the relationship between the condition of abuse and neglect is a direct one, or if several individual factors, beside the family and the socioeconomic status, interact with it. Additionally, we deem advisable to underline the significance of our results not only for a better understanding of the phenomenon “abuse on minors”, but also and above all in the perspective of alerting professionals regarding a matter that has such a strong clinical and social impact. The role of the dentists in recognising and reporting child violence, still not well defined in Italy, can only be outlined by providing the professionals with more knowledgeable information on the subject.

References


