

## ASSOCIATION BETWEEN FAMILY ENVIRONMENT AND THE BULLYING PHENOMENON AMONG SCHOOL-AGE CHILDREN: A SYSTEMATIC REVIEW

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### ABSTRACT

There is a lack of evidence about the possible role of the family environment in the occurrence of the bullying phenomenon among school-age children. We carried out a systematic review of the literature to investigate the positive and negative family determinants associated with the bullying phenomenon. Potential classes of determinants - e.g. interparental conflict and/or parenting behaviours - were studied by searching peer-reviewed literature published between the January 2008 and December 2018 on PubMed/MEDLINE, SCOPUS and ISI Web of Science. At the end of the eligibility process, only 3 studies met all the inclusion criteria, and were then included in the narrative synthesis. Mother destructive profile and excessive infant crying resulted significantly associated with child emotional insecurity and conduct/mood problems at the age of 5-6 years, respectively. Moreover, a decrease of medically unexplained symptoms in adolescent was observed after a one-year family functioning therapy. This body of evidences should raise the interest of the researchers in order to invest in depth the family unit impact on the bullying phenomenon in school environment.

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## 1. Introduction

Bullying is a well-known psychosocial problem that involves in particular school-age children [1]. The phenomenon is defined as an aggressive and intentional behavior, repeated over time, in which the victim perceives a power imbalance [2]. Bullying victimization is defined as the experience of repetitive, aggressive behavior towards an individual by her/his peers, such as unprovoked attacks, rejection and social isolation, humiliation and ridicule, malicious rumours, and name-calling, leading to severe distress in the victim, whilst the victim is unable to defend him/herself [2, 3]. Bullying victims experience severe emotional distress associated with the psychological and physical violence they are subjected to, as well as social marginalization and decreased status among peers [4, 5].

In Italy, according to the data of the National Institute of Statistics, bullying involves a significant percentage of school-age children: two in 10 children between the ages of 11 and 17 years report having been bullied two or more times in a month [6]. Recent studies have estimated the occurrence of the bullying phenomenon perceived by both teachers and students in a representative sample of secondary schools within the urban area of the city of Palermo, highlighting a prevalence higher than the ones reported by the national and regional statistics [7-9]. Also, an interventional study aiming to explore such a complex psychosocial phenomenon, including all types of bullying (physical, verbal, and indirect bullying), and to identify the variables associated to the profiles of both the bully and the victim, has documented a significant decrease in the number of bullying episodes after the conduction of a formative cascade training intervention among teachers [9].

To date, there is a lack of evidence about the possible role of family environment in increasing or decreasing the risk of modifying the inner disposition of school-age children to be involved in bullying phenomenon both as a bully and as a victim.

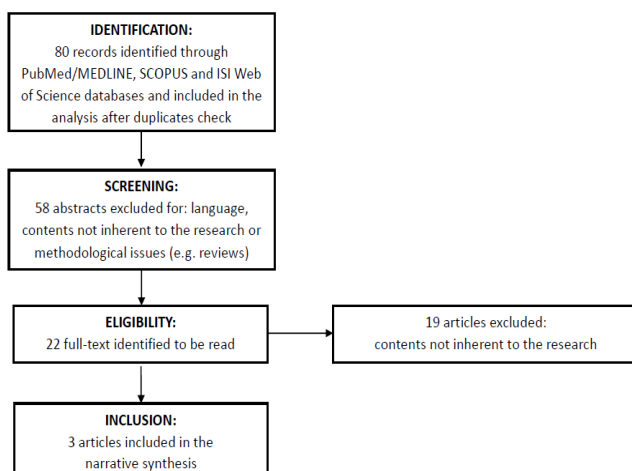
Therefore, we conducted a systematic review of the literature to investigate the positive and negative family determinants associated with the bullying phenomenon in school-age children.

## 2. Material and methods

A systematic review (SR) of literature on family environment determinants associated with bullying phenomenon was carried out. To this end, we used thesaurus terms and keywords referring to family/ethnology, family/relations, family/conflict and bullying, in combination with medical Subject Headings (MeSH) and MeSH Major Topics included in the syntax [10]. The search was performed on electronic databases including PubMed/MEDLINE, SCOPUS and ISI Web of Science. Reference lists and citations of included studies were hand-searched.

Original articles published between the 1<sup>st</sup> of January 2008 and the 31<sup>th</sup> of December 2018 were retrieved, with the following restriction criteria applied during title and abstract screening: articles published in a language different from English, Italian or French; non-observational studies and being other than original articles (e.g. review) (Figure 1). Other exclusion criteria used during full text analysis were children with any neurological development problem and study reporting determinants exclusively related to parental mental outcomes. Variable extraction was conducted on the basis of potential classes of determinants identified by the researchers such as interparental conflict and/or parenting behaviours. The literature search and the systematic review were conducted by two independent reviewers. In case of any incongruity, the two investigators came to an agreement after further discussion on the text.

Finally, a narrative analysis of the evidence from the included studies was performed.



**Figure 1. Flow diagram for selection of studies on family environment determinants associated with bullying phenomenon.**

## 3. Results

From the initial number of 80 records obtained from the online research on PubMed/MEDLINE, SCOPUS and ISI Web of Science databases, after the initial screening of titles and abstracts, 22 full text articles were considered eligible (Figure 1). At the end of the eligibility process, only 3 studies met all the inclusion criteria and were then included in the narrative synthesis. The results of the narrative analysis of the manuscripts included in the systematic review are summarized in **Table 1**, all resulting recently published (between 2016 and 2017). All the studies considered in the narrative analysis were observational.

In depth, Kopystynska et al. examined in a sample of 3722 low-income (<20.000\$/year) unmarried couples of Arizona (US), made by expectant or new parents of children at approximately 36 months of age, the relations between interparental conflict (destructive and constructive), parenting behaviours (harshness and supportiveness) and children's emotional insecurity in early childhood [11]. Three main goals were addressed: (a) the concordance or discordance of mothers' and fathers' conflict behaviours, (b) the relation between couples' conflict behaviors and parenting, and (c) the association between couples' conflict behaviors and child emotional insecurity [11]. To this end, four different profiles of couples were identified: 1) = concordant constructive; 2) = father constructive - mother destructive; 3 = mother constructive - father destructive; 4) = concordant destructive [11]. With regard to parenting, only mothers' observed harshness varied across some profiles. Specifically, mothers of the profile 1 exhibited significantly less harshness than mothers of the profile 2. Mean level of child emotional insecurity differed significantly across all profiles. Children of parents in the profile 4 were significantly less emotionally insecure than children of parents in the profile 1, followed by children in profile 3. Finally, children of the profile 2 (father constructive - mother destructive) showed the highest levels of emotional insecurity [11].

Hoffman et al. examined changes in family functioning for 50 Australian adolescents aged between 12 and 17 years, with medically unexplained symptoms (MUS) consisting in somatic symptoms with no identified organic cause, such as chronic fatigue syndrome, chronic pain syndrome, somatoform disorder, conversion disorder, undertaking a 12 months family-based rehabilitation program structured by physicians and psychologists [12]. The relationship between family functioning and adolescent response to treatment were longitudinally explored also.

In particular, family functioning at baseline showed significant main effects on all psychosocial outcomes reported by both adolescents and their parents in analysis adjusted for time (Table 1) [12]. There was no evidence for an independent association between family functioning at baseline and physical functioning [12].

Lastly, Smarius et al. prospectively investigated the association between excessive infant crying, as a single stress regulation indicator, and overall behavioural problems, problems of conduct, emotional symptoms, hyperactivity/inattention problems, peer relationship problems, pro-social behaviour, and mood and general anxiety problems, in 102 children at the age of 5–6 years, living in Amsterdam [13]. As reported in Table 1, after adjusting for confounding factors, a significant association between excessive crying and overall problem behaviour, conduct problems, hyperactivity, and mood problems, was documented by the authors [13].

Author (year)	Sample Size and Country	Children age range	Determinants analyzed	Associations (significant)
Kopystynska et al. (2017)	3722 children of low-income (<20,000\$/year) unmarried couples in Arizona (US)	36 months of age	Mother destructive behaviour	Child emotional insecurity
Hoffman et al. (2016)	50 adolescents with medically unexplained symptoms (MUS) in Australia	12 - 17 years of age	Family functioning therapy	Decrease of MUS symptoms
Smarius et al. (2016)	102 children with excessive infant crying in Amsterdam (NL)	5-6 years of age	Excessive infant crying	Conduct problems, hyperactivity, mood problems

**Table 1. Narrative synthesis of the 3 articles analyzed after SLR.**

#### 4. Discussion

The studies included in the SRL have broadly shown how much a weak and/or hostile family environment, if not properly intercepted, can profoundly change the psycho-emotional sphere of children, affecting the growth of their self-esteem, undermining that feeling of comfort and protection that is naturally created within a family unit, or even exacerbating the innermost fragilities of complex kids, who would benefit from a more effective parenting [14].

Although none of the included studies has made it possible to identify determinants that can directly affect a greater or lesser probability of incurring bullying among school-age children, their findings could suggest a connection with some determinants, such as generalized anxiety, low self-esteem, peer relationship problems, hyperactivity and social exclusion, that paint the psychological profile of the bully and/or victim [14, 15]. Similar elements were also reported in the qualitative analysis of the teachers perception conducted during BIAS study [8]. Specifically, the following items, mainly related to family environment, within the area of "affective-relational discomfort" were identified by the teachers: relational discomfort, roles disavowal, attention-seeking, warnings indifference, exclusion fear, emotional shortage for bullies and relational difficulties, lack of social skills, anxiety, inability to ask for help, fragility, social exclusion for victims [8].

However, other determinants such as socio-economic and cultural factors can be considered to play a potential role in the genesis of the bullying phenomenon in fragile school-age children [16, 17].

Similarly to other studies on school-based or community-based intervention programmes [18 - 20], a quality assessment of the cross-sectional studies in the narrative synthesis was performed, evidencing for all the three studies included a fair/high evaluation.

Some limitations of the present study should be considered. Despite the methodological guidelines for SRL were taken into account to conduct the systematic review and the web search of the articles, the review process was carried out by only two researchers and not by a team of reviewers. Furthermore, only open access scientific databases were probed, so some databases specifically devoted to behavioral science and mental health may be missing, together with "grey literature" that was not considered as well.

This review limited the research to the last 10 years, precisely to avoid associations that are difficult to fit in the contemporary world, which undergoes rapid and continuous generational changes both in the educational models and in the peers dynamics.

Afterwards, during the two-years course of the BIAS research project, results obtained in the SRL were extensively discussed during a dedicated workshop involving the multidisciplinary research group (consisting of teachers, psychologists and health-care professionals), in order to evaluate the role of the family environment in the bullying phenomenon in the Sicilian context and the possible preventive measures to be implemented.

In conclusion, bullying in schools has become worldwide an important and complex public health issue that should be counteracted by International Public Health Authority with specific preventive measures [7, 9, 21].

The apparent lack of evidence investigating a direct association between family environment and the bullying phenomenon among school-age children should raise the interest of the international scientific community, in order to invest a greater number of resources in this area, given the recent impact of the phenomenon on a global scale.

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