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Teacher-parent relationships: influence of gender and education on organizational parents' counterproductive behaviors

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Abstract The present paper examines the influence of parent's demographics (gender and educational level) and a contextual variable (school grade) on counterproductive parents' behavior during interaction with teachers. Data were gathered by administering the Italian version of the Challenging Parent Standard Questionnaire (Pepe 2010) to a sample of in-service teachers of both elementary and middle schools (N=674). As a result, a sample composed of 150 fathers and 524 mothers showing counterproductive behaviors was obtained. General linear model multivariate analysis of covariance (MANCOVA) revealed no statistically significant differences between fathers' and mothers' counterproductive behaviors when controlled for the effects of parents' education and the school grade. Low parental educational levels appeared to be associated with *uncooperative* and *uninvolved* behaviors, whereas *excessively worried* behaviors about a child's education seems to be associated with a parent having a college degree or more. It must be remarked that parents' behaviors can be conditioned by expectation about, or reaction to, the behavior of the teacher and the results should be interpreted by considering nonindependence of involved actors. Results are discussed in terms of theory development and parenting programs aimed at improving parent-teacher relationships.

Keywords Counterproductive behaviours · Gender differences · Parental involvement · Challenging Parent Standard Questionnaire · MANCOVA

Introduction

The field of school-parent relationships is a more than 40-year-old interdisciplinary research front that has substantially evolved over the last two decades (Castelli and Pepe 2008). The scientometric tradition suggested that the concept of *parents in education* is still an emerging research front (Castelli et al. 2009), adapting its areas of inquiry to social and educational changes. Among such changes, there has been growing awareness about the role of father and mother in children's academic achievement, which has contributed to shape the public space towards a more sustained parent-teacher relationship. The idea that parents and teachers are natural enemies (Waller 1932) can

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be no longer accepted. On the contrary, the involvement of parents and family in education is now more than ever recognized as vitally important for children's well-being and academic achievement.

Parental involvement can be today defined in terms of any parenting behaviors directed towards children's education (Gonzalez-DeHass et al. 2005), subsuming a various range of behavioral patterns and parental practices (Balli 1996). The tradition of studies on parents' participation agreed in identifying three major types of parents' educational involvement: (a) home-based involvement, (b) school-based involvement, and (c) academic socialization (Hill and Tyson 2009). Such categories are representative of common, interrelated, but distinct activities performed by parents to favor the academic achievement of their children. To draw distinctions between these categories, home-based involvement and academic socialization included interactions taking place between the child and parent outside of school (Hoover-Dempsey and Sandler 1997), while school-based involvement comprised activities typically undertaken by parents at school, focused on a single child (e.g., attending a parent-teacher conference, attending a school open house, and volunteering to assist on class field trips), and required a high degree of interaction with teachers and school staff (Green et al. 2007). Regardless of the discussion about specific areas of participation, various definitions of parental involvement agreed that the most important aspect of the construct itself is the idea of active participation in the educational context (Smit et al. 1999). This denotes that parents work closely as partners of the teacher, rather than being passive clients attending schools only when they have to, such as to pay school fees or respond when called by the principal because of misbehaviors of their children.

What we learn from empirical research is that (a) all major academic variables are affected by parental involvement (Houtenville and Conway 2008; Jeynes 2007) and (b) that parental involvement contributed to greater academic achievement (Fan and Chen 2001; Jeynes 2010). More specifically, the effects of parental involvement on academic outcomes were on both students' learning and reading skills (Koskinen et al. 2000). Positive effects were also identified on the amount of time spent on doing homework (Trusty 1996), students' motivation (Gonzalez-DeHAss et al. 2002), and motivational development (Grolnick et al. 1991). Empirical evidence has consistently supported parental involvement in schools, suggesting that continued examination of whether the involvement of parents is an essential aspect of school life today no longer is necessary. Researchers should instead explore how parental involvement could be implemented at schools and how it impacts organizational aspects of schools (Addimando 2013; Epstein 2011).

From this point of view, if we are ready to welcome the positive aspects of parents' involvement, as educational researchers, we must also be ready to deal with the drawbacks or so-called collateral effects of parents' engagement as well, for instance, how the involvement of parents in schools affects the relationship between parents and teachers. Several studies remarked that when parent-teacher relationships are not harmonious, the phenomenon of *counterproductive parents' behaviors* contributed to increase teachers' occupational stress (Grolnick and Seal 2008; Pepe 2010). Notwithstanding the existing corpus of research on this topic, there is still a paucity of studies devoted to delineating parents' counterproductive behaviors and exploring the impact that sociodemographic variables (such as gender, parent education, and school level) might have on such behaviors.

Theoretical background

Definition of counterproductive parents' behaviors

As Crozier (2001) remarked, the discourse about parents' involvement is frequently characterized by what she labeled the *one-size-fits-all* approach: a general tendency to accept the

blanket assumption that all parents positively reacted to school practices and behaved in the same way when involved in those same practices. Unfortunately, such an assumption frequently has masked the complexity of the parent-teacher relationship that, on the contrary, is shaped by several individual (such as age, gender, and socioeconomic status) and organizational variables (such as transparency in school, sense of being welcome, and organizational openness). Moreover, the one-size-fits-all approach failed to consider the phenomenon of parents' counterproductive behaviors during interactions with teachers.

The authors adopted the label *counterproductive parents' behaviors* (CPBs) instead of other common terms (i.e., challenging or troublesome behaviors) for three reasons. First, according to Thompson (1967), schools could be classified as among the organizations characterized by an intensive technology in which a strong interdependence among the various organizational tasks must be sustained. In this type of organization, the performance of one task is dependent on the results of all other organizational efforts, in such a way that the main overall outputs (e.g., children's academic achievement, teachers' well-being, and parents' satisfaction) were linked to the degree of coordination achieved among the main organizational agents. From this point of view, we have to consider parents as true members of the organization participating for its success and survival.

Second, a long tradition in the industrial psychology and organizational literature about *counterproductive work behaviors* (CWBs) among employees and workers was ready to provide the description of a myriad of CWBs (Wu and Lebreton 2011). To our knowledge, little attention has been devoted to identify behaviors that teachers find more counterproductive during their interaction with parents, perhaps because the main difficulty with the concept of CPB is the role played by social, cultural, and peculiar backgrounds in the appraisal of what can be considered counterproductive (Langfeldt 1992). Some CWBs are easily defined. For example, an absent worker is simply someone who is away from his or her work without permission; the absenteeism can be thus easily operationalized and measured. On the contrary, a parent's behavior becomes problematic when it is subjectively perceived as troublesome by the teachers (Jones et al. 1995). Counterproductive behaviors were not viewed in terms of moral standards to which people have to adapt; rather, they were counterproductive because they did not follow formal and informal norms as defined by organizational and individual spaces (including poor manner or other social blundering), policies, and practices (Robinson and Bennett 1995). However, even if the label *counterproductive behaviors* should be more conceived as socially and culturally based rather than focused on the intrinsic characteristic of the phenomenon itself, we could consider CWBs and CPBs as "a similar side of different coins." The two classifications of behaviors are similar because of the consequences that counterproductive behaviors have on interactions among members of the organization as well as on organizational outcomes and climate.

Third, what first attracted our attention was the fact that the majority of current definitions of CWBs could be easily adapted to CPB with few minor changes and a major recommendation.[1] For instance, Rotundo and Sackett (2002) asserted that CWBs in organizations referred to extra-role behaviors designed to damage a person or an organization, and these behaviors are distinct from organizational citizenship behaviors. Drawing from the definition alone, it appeared reasonable to assert that parents' counterproductive behaviors were also extra-role behaviors, surely deviating from the idea of organizational citizenship and which, instead of being designed to deliberately damage the organization, de facto hold the capacity to damage

[1] Employees CWBs are characterized by a high degree of intentionality and by the willingness to damage either the organization or its members (Weiten and Lloyd 2006); on the contrary, we tend to consider parents' counterproductive behaviors (at least the majority of them) as a phenomenon occurring among people who have started participating in organizational processes with genuine enthusiasm and interest toward positive involvement. In our experience, the parents usually reported a very low level of awareness regarding the harmful consequences of their counterproductive behaviors during interactions with teachers.

parent-teacher relations. In other words, counterproductive behaviors in educational organizations were actions that threaten the well-being of the organization itself as well as its members by breaking implicit and explicit rules about civil, respectful, and appropriate behaviors.

Variables influencing parental involvement at schools

Cumulative research on parental involvement has highlighted the role of social and local aspects as well as family demographic and socioeconomic variables as antecedent (or in some case predictors) of parents' participation in school life.

Family member roles In the area of sociological studies, Ravn (2003) analyzed divergences in the European cultural context of parents in education, concluding that in Catholic-dominated countries (such as Italy), many families are still structured following a patriarchal pattern. According to the principle of subsidiarity,[2] families take the primary care of the child in conjunction with an almost clean-cut and secularized division about the role of parents in setting the daily organization of families' routines. The father is the breadwinner providing the income, while the mother stays at home and looks after their children's care. As a consequence, mothers play a crucial role in the process of socialization of the child (including formal education and relationships with teachers), and they are considered almost exclusively responsible for failure in properly socializing the children. This reflected conclusions from anthropological studies suggesting the existence of parental ethnotheories (D'Andrade and Strauss 1992; Quinn and Holland 1987) that are implicit and socially transmitted as cultural models that parents hold regarding children, families, and themselves as parents, influencing the way they act in a large set of common and sporadic situations by providing a set of taken-for-granted schemes. Such schemas provided patterns from which individuals obtain ideas about what is natural or appropriate (Harkness and Super 2006). Even if psychological studies agreed that people in families tend to assume different, and sometimes complementary, roles in the education of their children (Millette 1998) and several researchers studied how the gender influenced teacher-to-student relationships (Krieg 2005; Walker and Berthelsen 2009), there is a shortage of studies exploring the effect of gender on parents' behaviors that teachers seem to consider counterproductive during their interaction with families.

Parent demographics According to the bioecological theory of Bronfenbrenner (1986), parents' demographics surely affect both parental involvement and social interactions between school context and people included in the child's milieu; however, such theoretical framework does not indicate a hypothetical hierarchy of which contextual variables are more relevant in determining levels of involvement. Some authors focused on some characteristics (Ho and Willms 1996), such as the size of the family and marital status, and concluded that those variables emerged as significant predictors of parental participation: parents from multiple-child families tend to be less involved than parents from single-child families; on the contrary, the marital status do not affect levels of involvement.

Somewhat different conclusions emerged when the impact of family structure on participation at schools was taken into account: it seems that, perhaps due to the availability of time and resources, single-parent families are less involved in school processes than two-parent families (Astone and McLanahan 1991; McNamara Horvat et al. 2003). Otherwise, Grolnick et al. (1997) suggested that family socioeconomical status (SES) was a strong predictor of

[2] Subsidiarity (n.d.) is "the principle that decisions should be made at the lowest possible level of a government or an organization, rather than always being made at a high level" (para. 1) (Macmillan Publishers Ltd. 2013).

parental involvement in schools. However, from this point of view, the idea of SES refers to a hierarchy of variables that can be adopted to describe a person's overall social standing. SES is multidimensional and composed of a set of interrelated concepts such as educational level, occupational status, income, and wealth. In a narrowed fashion, other researchers underlined that a parent's lack of education has a negative effect on parental participation, and parents are more likely to be involved when they had a high school diploma degree or more (Winquist 1998). Conversely, findings from small-scale studies concluded that parents with low income and low levels of education tend to be more involved in home-based educational involvement (e.g., checking homework) rather than being engaged in school-based activities. This was found to result from their experience of feelings of discomfort in being involved directly because of their lack of education. As a consequence, they had poorer interaction with teachers (Patrikakou and Weissberg 1998). What can be briefly concluded by the study of indicators of parental involvement is that evidence varies considerably across studies, and findings are still far from being considered definitive. Evidence provides a general support for the conjecture that parents with low socioeconomic status are less involved in their children's schooling than are parents from high socioeconomic status.

Gender Given the fact that researchers who study parental involvement have suggested the need to need to pay more attention to gender-specific effects (Lee et al. 2007) and that research has rarely examined the unique impact of specific demographic variables on parent-teacher relationship (Epstein 1997), it is relevant for the development of the field to further explore the effect of gender, education, and school level on counterproductive parents' behaviors.

Rationale for the present study

The present research was conceived using a set of three interrelated rationales. First, current research on parental involvement has consistently reported findings about the importance of involving parents in schools (Fan and Chen 2001; Houtenville and Conway 2008; McNeal 2001). Second, the plain adoption of one-size-fits-all approaches to parental involvement failed in describing the complexity of the relationship between teachers and parents (Crozier 2001). Consequently, such frameworks only provide a simplistic understanding of parent-teacher relationships because, even if parents try to participate in a positive and nurturing way, teachers reported that the relationship with parents of their pupils represented a major source of occupational stress (Grolnick and Seal 2008; Pepe and Addimando 2013). Third, while a long tradition of study in the field of education contributes to identify factors promoting parental involvement (Epstein 1997; Grolnick et al. 1997; Mmotlane et al. 2009), there is still a paucity of studies devoted to the comprehension of sociodemographic variables associated with counterproductive parents' behaviors.

This study addressed some key aspects of parent-teacher relationships in school contexts by exploring parents' behaviors by the data gathered from the Challenging Parent Standard Questionnaire (CPSQ) (Pepe 2010; Van der Wolf and Everaert 2005) and by means of multivariate analysis of covariance (MANCOVA) in order to (a) understand what kind of parents' counterproductive behaviors was more frequently reported by teachers, (b) determine whether the gender of the parent could account for variations in the frequency of such behaviours, and (c) assess whether such variations could be accounted for by other sociodemographic (e.g., educational level attained by the parent) or contextual variables (e.g., grade of school attended by the children). Given that previous findings in the literature are still

scarce or ambiguous, we started with no particular prediction about the relation between gender and the frequency of counterproductive parents' behaviors. In contrast, we expected that the educational level of parents would be more relevant than gender in accounting for difference among different kinds of counterproductive parents' behaviors.

Method

Procedure

Participation in the study was on a voluntary basis; participants were recruited on-site and interviewed during their working time. All questionnaires were completed anonymous and handed in collectively. In order to be sure that the participants possessed correct information about parent's background, the authors organized plenary assemblies in schools so that the teaching staff was quickly informed about the aims of the research 2 weeks before the administration of the questionnaire. Thereafter, questionnaires had been administered during follow-up assemblies during which participants were reminded about the importance of gathering precise data about the variable parental educational level and that if they were not sure about such information then they should leave the response blank. The data included 26 different school macro-locations in the area of Milano and its suburbs. Only teachers in charge of their own classrooms for at least one full year at the time of the study participated. The research had been conducted following the APA's ethical principles and code of conduct (American Psychological Association 2010).

Sample

The sample was composed of in-service teachers (N=674) recruited in primary and lower secondary schools of Milano, a highly populated and industrialized area of Northern Italy. The gender distribution was 596 females (88.4 %) and 78 males (11.6 %, with nine participants not signifying their gender). The mean age was 46.1±9.1 (min–max 25–64). The average length of teaching years was 20.5±10.8 (min–max 1–40). Mean age for male and female participants was 46.9 and 45.1, respectively. Mean number of years teaching for male and female participants was 19.9 and 19.1, respectively. A slight majority of teachers worked in middle school (n=398, 59 %); all others were employed in elementary school (n=276, 41 %). With regard to parents' demographics, each teacher provided the data regarding the one parent considered to display the highest level of counterproductive behaviors during their ongoing school year. Parents consisted of about 524 women (77.7 %) and 150 men (22.3 %). Among the parents, 13.3 % had elementary education, 30.1 % had up to middle school education, 40.2 % had high school education, and 16.2 % had a university degree. No association has been detected between teachers' and parents' gender (χ^2=3.31, p=n.s.; ϕ=.051).

Measures

The CPSQ was a questionnaire originally developed to explore parent-teacher relationships in the Dutch schools (Van der Wolf and Everaert 2005) by using the theoretical background of Seligman (2000). Then, the questionnaire was translated and culturally adapted to the Italian context following the traditional back-translation method described by Brislin (1980). The new version of the instrument reported strong psychometric proprieties, and its factor structure

resulted in five different dimensions, each referring to a specific category of parents' counterproductive behavior (Pepe and Addimando 2010).

Since the aim of the CPSQ is to analyze teacher-parent relationship at a microlevel, the respondents had to focus on the parent who, in their minds, demonstrated the highest level of counterproductive behaviors during their ongoing school year. This represents perhaps the major shortcoming of the measurement tool. In fact, the results of CPSQ should be used with caution because it must be assumed that empirical observations are dependent. The CPSQ is composed of 21 items that are behavioral descriptors that were required to be rated twice. First, the respondents were asked how frequent the behavior was (from 0 = *doesn't show this behavior at all* to 4 = *shows this behavior a lot*) and, second, how stressful it was (from 0 = *not stressful at all* to 4 = *very stressful*). Once the items were completed, the respondents provided demographic information about that parent when answering the CPSQ items. Since the present study was focused on exploring potential differences between CPBs, the authors analyzed only frequency scores.

The categories of counterproductive behaviors were conceived as follows:

Excessively worried: The category included parents who are generally overly involved in children's schooling. When the academic achievement was less than perfect, the parent tended to express his or her concerns to the teachers (five items, Cronbach's α=.78).

Unsatisfied: The measure referred to situations in which parents were dissatisfied with academic issues. These parents usually called the teachers to express their dissatisfaction or they did not agree with teachers' decisions or workflows (four items, Cronbach's α=.81).

Uncooperative: In some cases, parents had a shortage of time and resources to ensure that their child completed homework assignments; however, in other circumstances, the main difficulty was within the parent-teacher relationship. Perhaps, parents might express the intention to cooperate, but they actually did not follow through with a previous agreement. Lack of cooperation can be considered a barometer of the quality of the relationship (Seligman 2000) (five items, Cronbach's α=.82).

Overprotective: Overprotective behaviors were typically characterized by anxiety about a child's physical well-being. The parents were extremely worried about physical and psychological harms, and they were less concerned about the child's academic progress (three items, Cronbach's α=.72).

Uninvolved: Uninvolved parents show a general indifference towards children's education. They tended to be disengaged and to avoid every kind of contact with teachers and, more generally, with the school context. Parents in this category likely believed that learning activities should take place mainly in the classroom and that teachers are primarily responsible for a child's education (four items, Cronbach's α=.77).

Obviously, one might argue whether all five categories included into the model of measurement should be really considered as counterproductive in different cultural contexts. Previous studies demonstrated that those behaviors are counterproductive in The Netherlands (Prakke et al. 2007), USA (Lambert and McCarthy 2006), and Italy (Pepe 2010) given that, in general, all measures positively correlated with work-related stress (r_s values ranging from .464 to .690) and negatively correlated with job satisfaction (from −.177 to −.101).

Finally, the CPSQ measures categories of counterproductive behaviors that are not mutually exclusive: its structure is designed to account for the complexity of a parent-teacher relationship in which clean-cut dividing lines can be rarely found. For instance, when teacher rated the

frequency of behavior of a parent categorized as unsatisfied, it is simplistic to think that such a parent will be only unsatisfied. To some degree, that same parent will likely also show behaviors fitting into the uncooperative or uninvolved categories. As a consequence, in order to create a mutually exclusive group according to the behavior patterns, the idea of "predominance scale" (i.e., the highest-rated behavior in terms of frequency by the respondent) has been used.

Statistical analysis

In the first step, means, standard deviations, skewness, and kurtosis of all measures of parents' counterproductive behaviors were analyzed to verify whether basic normality assumptions were violated.

In the second part, one-way MANCOVA, using a general linear model, was performed in order to assess differences among the frequency to which counterproductive behaviors were shown by mothers and fathers when other variables were controlled for (i.e., educational level and school level). The MANCOVA represented a powerful quantitative method, stemming from regression analyses and analysis of variance, allowing an improvement of group comparisons by controlling nuisance variation statistically (Miller and Chapman 2001). The MANCOVA is mostly used in nonexperimental studies to account for the source of covariations as a consequence of the effect of a confounding quantitative variable (Keselman et al. 1998). The main rationale was to assess whether different target variables (continuous) are predicted by another variable when controlled for the effect of other confounding variables. In this study, the five measures of counterproductive behaviors were used together as criterion variables, the grouping variable to explore between-group difference was the gender of parents, and, finally, sources of covariation were both the educational level attained by the parents and children's school level.

The MANCOVA required that different important assumptions must be tested: (a) normality of variable distribution, (b) equality of variances, (c) statistical independence of errors, (d) equality of regression slopes among groups, and (e) equality of covariance matrices (Hamilton 1976; Levy 1980; O'Brien 1992). Required information about potential violations of MANCOVA assumptions was provided in the "Results" section. The Bonferroni correction (Bland and Altman 1995) has been used to adjust the p value of this study; consequently, the threshold for statistical significance was set at .01 for all analysis.

Results

In Table 1, descriptive analysis of CPSQ dimensions of counterproductive along with zero-order correlations was reported. All variables of the CPSQ resembled a normal distribution, with skewness values ranging from |0.06| (uninvolved) to |1.03| (unsatisfied) and kurtosis values ranging from |0.63| (excessively worried) to |1.04| (unsatisfied). The majority of measures reported a slight tendency to be platykurtotic. None of the measures presented distribution values over the common recommended cutoff point of |2| (Hopkins and Weeks 1990).

Generally speaking and with regard to the frequency of parents' counterproductive behaviors, Italian teachers rated uncooperative behaviors highest (M=2.38, SD=1.03), followed by overprotective (M=2.24, SD=1.14), uninvolved (M=1.76, SD=0.96), excessively worried (M=1.41, SD=1.03), and unsatisfied (M=0.78, SD=0.90). This means that the most frequent counterproductive behavior reported by teachers was uncooperativeness. On the contrary, the

Table 1 Descriptives and zero-order correlations between variables (N=674)

	M	SD	1	2	3	4	5	6	7	8
Excessively worried (1)	1.41	1.03	–							
Unsatisfied (2)	0.78	0.90	.398**	–						
Uncooperative (3)	2.38	1.03	−.011	−.154*	–					
Overprotective (4)	2.24	1.14	.511**	.267*	.020	–				
Uninvolved (5)	1.76	0.96	−.265*	.030	.468**	−.153*	–			
School grade (6)	–	–	−.035	−.126*	.095	−.044	.088	–		
Parent's gender (7)	–	–	.028	.043	−.006	−.062	.031	.110**	–	
Parent's education (8)	–	–	.376**	.038	−.184*	.055	−.311**	−.032	.030	–

*p<.01; **p<.001

least frequent was unsatisfaction (M=0.78, SD=0.90). In terms of potential threats to the model under study from non-normality, data were robust.

From Table 1, it can be noted that, in general, parents' gender did not correlate with any measures of counterproductive behaviors. On the contrary, parents' educational level positively correlate at a statistically significant level with *excessively worried* (r_s=.376, p<.001) and negatively with *uncooperative* (r_s=−.184, p<.01) and *uninvolved* (r_s=−.153, p<.01) counterproductive behaviors.

The result gave rise to a more complex analysis with MANCOVA in order to explore the differences between mothers' and fathers' frequency of counterproductive behaviors, when controlled for the effect of education and school level (elementary vs. middle school). The general results revealed a nonstatistically significant main effect for gender (Wilks' λ=.988, F=1.56, p=.168, η^2=.012). On the contrary, a statistically significant effect for both school level (Wilks' λ=.970, F=4.19, p=.001, η^2=.030) and education (Wilks' λ=.758, F=42.63, p<.0001, η^2=.242) was found. Box's test of equality of covariance was not statistically significant, meaning that the covariance matrices were not statistically different (Box's test= 17.66, F=1.16, p=.293). Given the significance of the overall tests, the main effects of each variable were now examined.

Excessively worried The results of MANCOVA revealed that the main effect of gender was not statistically significant ($F_{1,\ 673}$=0.48, p=.490, η^2=.001) nor was the main effect of school level ($F_{1,\ 673}$=0.38, p=.536, η^2=.001). On the contrary, the effect of education was statistically significant ($F_{3,\ 670}$=111.54, p<.0001, η^2=.143). The interaction terms gender × education ($F_{3,\ 670}$=1.43, p=.232, η^2=.002) and gender × school level ($F_{1,\ 672}$=0.40, p=.528, η^2=.001) suggested that regression slopes are homogeneous. Tukey's HSD post hoc comparison test (Keselman and Rogan 1978) revealed at a statistically significant level ($F_{3,\ 670}$=38.22, p<.0001) that parents with an education less than a high school diploma tended to show less worry about educational achievement than parents with a high school diploma or more.

Uncooperativeness The main effect of gender was again not statistically significant ($F_{1,\ 673}$= 0.01, p=.959, η^2=.000). The effect of education was again statistically significant ($F_{3,\ 670}$= 23.86, p<.0001, η^2=.034), whereas the regression slope assumptions for gender × education ($F_{3,\ 670}$=0.04, p=.947, η^2=.000) were not. A post hoc comparison performed of parents' educational levels was statistically significant ($F_{3,\ 670}$=7.96, p<.0001), suggesting that parents with at least a high school diploma were likely to show fewer uncooperative behaviors than

Table 2 Summary of MANCOVA analysis (N=674)

	Excessively worried		Uncoop.		Uninv.		Unsat.		Overprot.	
	F	p	F	p	F	p	F	p	F	p
Intercept	6.45	–***	312.23	–***	347.57	–***	51.83	–***	146.43	–***
Gender	0.48		0.01		0.77		1.68		2.29	
Education	111.54	–***	23.86	–***	86.89	–***	0.64		1.88	
School level	0.38		5.35		3.69		10.35	–**	0.58	

*p<.01; **p<.001; ***p<.0001

parents with less than a high school diploma. The main effect of school level was not statistically significant ($F_{1,\ 673}$=5.35, p=.021, η^2=.008), and regression slope assumptions were not violated ($F_{2,\ 672}$=2.51, p=.114, η^2=.004).

Uninvolved The effect of gender was not statistically significant ($F_{1,\ 673}$=0.77, p=.379, η^2=.001) nor was the main effect of school level significant ($F_{1,\ 673}$=3.69, p=.061, η^2=.006). Again, the main effect of education was confirmed at a statistically significant level ($F_{3,\ 670}$=86.89, p<.0001, η^2=.115) and the assumption was not violated ($F_{3,\ 670}$=0.36, p=.547, η^2=.001). Tukey's HSD post hoc comparison test confirmed at a statistically significant level ($F_{3,\ 670}$=28.5, p<.0001) that the education of the parent affected the tendency to be uninvolved; in this case, levels of involvement in parents with less than a high school diploma were lower than in parents with a high school diploma, which in turn differed from parents with a university degree.

Unsatisfied Finally, the main effects of gender ($F_{1,\ 673}$=1.68, p=.195, η^2=.003) and educational level ($F_{3,\ 670}$=0.64, p=.425, η^2=.001) were not statistically significant. However, we observed a statistically significant effect of the school level ($F_{1,\ 673}$=10.35, p=.001, η^2=.015). Also, in this case, regression slopes were homogeneous ($F_{3,\ 670}$=0.56, p=.454, η^2=.001; $F_{1,\ 673}$=1.31, p=.253, η^2=.002) and t test comparison ($F_{1,\ 674}$=10.97, p=.001) indicated that teachers reported more frequent *unsatisfied* behaviors in elementary schools (M=.91, SD=.99) than in middle schools (M=.68; SD=.81).

Overprotective This last CPSQ's measure of counterproductive behaviors did not report any statistically significant main effects for either gender ($F_{1,\ 673}$=2.29, p=.130, η^2=.003), education ($F_{3,\ 670}$=1.88, p=.171, η^2=.003), or school level ($F_{1,\ 673}$=0.58, p=.447, η^2=.001).

Results are summarized in Table 2. From this analysis, it could be briefly concluded that instead of explaining differences about the frequency of parents' counterproductive behaviors during interaction with teachers in terms of the parental gender, the adoption of contextual variables such as parents' education and school level provided a better contribution to the comprehension and the prevention of unsuccessful parent-teacher relationships.

From this point of view, when the first covariate (parents' education) is included in the model, a general and statistically significant main effect on counterproductive behaviors can be found with medium and large effect sizes (η^2 values ranging from .034 up to .145). In a similar fashion, when the second covariate (school level) is included, a few statistically significant main effects can be found, with effect sizes with small magnitude (η^2 values ranging from .001 up to .015).

Discussion and practical implications

The present paper has focused on the relationships between parents' counterproductive behaviors and three important situational and dispositional parents' characteristics: gender, education, and school level. We started from three research objectives: (a) understand what kind of parents' counterproductive behaviors were more frequently reported by teachers, (b) determine whether the gender of the parent could account for variations in the frequency of such behaviors, and (c) assess whether such variations could be accounted for by the educational level and the grade of school attended by the children.

The findings from descriptive analysis revealed that the two most frequent CPBs reported by teachers are *uncooperative* and *overprotective*, whereas the least frequent is *unsatisfaction*. On one hand, uncooperativeness represents a real menace to the parent-teacher relationship because, as we know, the parent-teacher relationship is based on shared value and mutual trust (Ho 2007), and the lack of cooperation is a type of barometer of the quality of this relationship (Seligman 2000). On the other hand, teachers are likely to encounter almost the same frequency of overprotective behaviors (i.e., being excessively concerned about the well-being of the child). However, both behaviors were perceived by teachers as counterproductive, and since they have a high impact in terms of occupational stress (Pepe 2010), teachers are called to strengthen their relational skills in order to sustain positive interaction with families.

Results from the MANCOVA analysis demonstrate that, among those identified by the teachers as the most challenging parents, fathers and mothers do not show statistically significant differences in terms of counterproductive behaviors, whereas some differences emerged when the educational level of parents is taken into account. Therefore, a dividing line should be drawn between parents with less than a high school diploma (low level of education) and individuals with at least a high school diploma (high level of education). Regardless of their gender, parents with a low level of education are characterized by a high frequency of both uncooperative and uninvolved behaviors when compared to parents with a high level of education. In other words, it did not matter whether an individual was a father or a mother when determining whether his or her educational level would influence counterproductive behaviors during interactions with teachers. However, those with more than a high school diploma showed higher levels of worry about the academic achievement of the child than parents with a low educational status did.

Cumulative findings from the second covariates (school levels) indicate that the variable has a very limited role in accounting for differences in frequency of counterproductive behaviors. A brief analysis of effect size values revealed that only the measure unsatisfaction is linked to the school context (with more unsatisfied parents at the elementary level) rather than to the educational level of the parent. This last evidence should be read in the light of local specificities of the Italian education system with regard to school organization rather than other general conclusions on parent-teacher relationships.

In conclusion, the purpose of this analysis was to identify the role of specific parents' demographics in explaining empirical differences in the frequency of counterproductive behaviors as reported by teachers. If popular culture (and in some case conclusions from differential psychology) has contributed to the idea that differences between fathers' and mothers' behaviors existed and that, perhaps in accordance with these messages, men and women tend to perceive each other in ways that fall in line with common gender stereotypes (Vogel et al. 2003), our findings seemed to not reveal any association between gender and counterproductive behaviors during interaction between parents identified as the most challenging and teachers. This result is in line with conclusions from meta-analysis (Balliet et al. 2011; Feingold 1994) revealing that the underlying gender-based behavioral differences during

social interaction tend to be smoothed out when statistically controlled for individual characteristics or other covariates.

This finding challenges the superficial tendency to draw stereotypical conclusions about the relationships between teachers and parents. This study also suggests that, from a methodological point of view, the use of multivariate statistical techniques, such as the MANCOVA, represented a good strategy to study parental involvement, as future research will benefit from an integration of more "controlled for" findings in the main framework to develop a more sophisticated comprehension of parent-teacher interactions.

Although in this research we did not formulate a hypothesis about the association between parents' educational level and counterproductive behaviors, we identify a sort of "dividing line" between low level of education (less than high school degree) and high level of education (at least high school degree), with parents who were within the former group being more likely than the latter to be uninvolved and uncooperative. On the contrary, parents who were within the highly educated groups were more likely to be excessively worried about the academic achievement of their children. In line with previous studies focusing on the educational level of parents (Epstein 1997; Grolnick et al. 1997; Winquist 1998) as a predictor of parental involvement, this variable seems to play a relevant role also in how parents interact with the teachers in terms of counterproductive behaviors.

According to a previous theoretical model of parental involvement (Hoover-Dempsey and Sandler 1997), tentative explanations for these results suggest that parents coming from a high socioeconomic status will have higher expectations about the academic achievement and, as a consequence, are likely to be more interested in such aspects of schooling when interacting with teachers. Therefore, educational level is frequently linked to occupational status and family income, which are in turn associated with parental role construction, parental involvement, parental expectations for the child's educational and occupational future, and more favorable home environments where the importance of both education and academic achievement is recognized. As a consequence, in some case, parents tended to overestimate the importance of the academic achievement, and this led teachers to perceive such behavior as counterproductive. In a similar fashion, parents coming from a low socioeconomic status (i.e., low level of education and low occupational status and income), possibly due to a lack of time and resources, tended to be less involved in school-based educational involvement. They also tended to be uncooperative because they had poorer interaction with teachers (Patrikakou and Weissberg 1998).

Our research findings could be relevant to several practical suggestions for the development of policy and practice to involve parents in schools. The need to distinguish between different practices of involvement in the parent-teacher relationship is evident in this study. Like other forms of involvement (i.e., involvement in child-care tasks and general participation), fathers' and mothers' uncooperative and uninvolved behaviors are negatively related to the educational level. These findings reflected the frequent pattern of the manager-helper relationship (Coltrane 1996; Hochschild and Machung 1989), in which parents with poor education background are likely to delegate to both schools and teachers the full coordination of parental engagement activities in child education.

Another suggestion is that when parental involvement programs are planned, practitioners should carefully develop action plans taking into account background-based family differences and averting one-size-fits-all approaches. From our work in the field, we learned that too many times, parental involvement programs reached the result of involving to a greater extent those who were already involved. One would suppose that the aim of parental involvement policies is precisely to improve the level of involvement of those who are not participating well in order to improve the academic achievement of children from disadvantaged backgrounds.

Contrarily, too often, parental involvement action plans are only suitable for people who can afford the cost (e.g., parents from the working class are frequently forced to ask for a work permit to attend parent-teacher interviews) of a stable and continuing parent-teacher relationship.

Turning to the idea that several areas of school functioning resemble the organizational dynamics characterized by an intensive technology with a strong interdependence among the various organizational tasks (Thompson 1967), it appeared reasonable to adopt the notion of *open system* to better conceptualize the impact of parental involvement (and CPBs) on the school organization. A school viewed as an open system interacts with its surrounding environment in such a way that a change in the environment would in effect initiate a change in the system and a change in the system would initiate a change in the environment. From this viewpoint, the degree of coordination achieved among main organizational agents (school management, teachers, and parents) as well as the quality of their relationships (e.g., a reduction of both CWBs and CPBs) constitutes a real "added value." A high degree of coordination facilitates the process of adapting organizational dynamics to current challenges and involving parents in school processes in a positive way. In order to increase participation of parents, while buffering teachers from counterproductive behaviors, organizations should strategically tailor their practices to the needs of homogeneous categories of parents.

Limitations

The following limitations of this study should be highlighted. First of all, the Challenging Parent Standard Questionnaire is designed to assess the quality of parent-teacher social interactions by assessing level of counterproductive behavior. Consequently, the respondents need to focus on particular events as opposed to a more general evaluation of an ideal "challenging parent." Although the procedure is not so widespread, this can be considered methodologically in line with the literature on evaluating and monitoring other forms of dyadic behavioral patterns (e.g., Seligman 2000) and it could improve the ecological validity of results. Nevertheless, the procedure is not without shortcomings. For instance, the selection made by the respondents who demonstrated the highest level of counterproductive behaviors can be biased by stereotypical inferences and representations of the parent. Moreover, parents' behavior can be conditioned by expectation about, or reaction to, the behavior of the teacher. This means that results should be read also in light of nonindependence of involved actors instead of purely relying on the attributes of individuals. From this point of view, the authors encourage more research on this topic to further clarify the contribution of such attributes in shaping the quality of parent-teacher interactions.

Second, there are some issues about the generalizability of the results given that the number of fathers included in the research was very much lower than the number of mothers. Third, the measures relied on teachers' self-reports, which could result in shared-method variance and some overestimation of the findings. In addition, self-reports could be subject to social desirability concerns and reduced reliability. For example, we could assume that parental involvement is a desirable aspect of a teachers' job (i.e., a source of satisfaction), and if we ask teachers what is the most counterproductive behavior showed by parents, they may answer according to their knowledge of the researcher's assumption and perspective. To compensate, data were drawn from teachers anonymously, and the measures addressed specific and well-defined forms of involvement.

Finally, other local peculiarities (such as different organizational cultures) might endanger the quality of both data and conclusions. For instance, one might argue that the data is hierarchically

structured and school level should be included in the analyses. This is not precisely the case: the reason can be tracked back into the present organization of the Italian educational system (Ministry of Education 1997). The law introduces the idea of "comprehensive schools" (art.6.1), and different small- or medium-sized schools were grouped into a single administrative unit to simplify the educational system. Unfortunately, since each school maintained local peculiarities but decision making is taken at a "comprehensive level" (art. 6.2), the result was something resembling a kind of "cold fusion." We did gather data in 26 different school macro-locations, each one of them was not homogeneous but composed of teachers from different schools. In order to compensate the effect of such sources of perturbation, we collected a quite large sample of teachers with the aim of empirically randomizing potentially confounding variables. Finally, the sample was restricted to elementary and middle schools of a highly populated industrialized area of Northern Italy. Parents' involvement in other situations (e.g., rural or suburban schools) may exhibit different associations between involvement and sociodemographic characteristics.

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Most relevant publications in the field of Psychology of Education:

Pepe, A., & Addimando, L. (2010). Testing the psychometric properties of the Challenging Parent Standard Questionnaire (CPSQ) in the Italian educational context. *International Journal About Parents in Education, 4*(1), 1–16.

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Most relevant publications in the field of Psychology of Education:

Addimando, L. (2013). I comportamenti controproducenti dei genitori a scuola: un'analisi sulla soddisfazione e l'autonomia lavorativa degli insegnanti [Parents' counterproductive behaviors at schools: an analysis of job satisfaction and perceptions of autonomy]. *Psicologia della Salute [Health Psychology], 2,* 33–51.

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