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Child Externalising and Internalising Behaviour in the First Year of School: The Role of Parenting in a Low SES Population

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Abstract
Successful transition and adjustment to school life is critical for a child's future success. To ease this transition a child needs to arrive equipped with the necessary skills for school. The extent of a child's behavioural problems is one indicator of his or her level of adjustment and school readiness. A factor which is consistently associated with such behaviours is parenting practices. This study examined the role of maternal parenting behaviours on externalising and internalising behaviours displayed by children in their first year of schooling. As children living in low socioeconomic status (SES) families are at risk of both adverse parenting behaviours and childhood behavioural difficulties, the study focuses on a low SES cohort. Mothers ($n = 197$) reported parenting behaviours using the Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson, Mandelco, Olsen, & Hart, 2001). Teachers ($n = 21$) rated children on how frequently they engaged in fifteen behaviours. These behaviours were subjected to an exploratory factor analysis, eliciting two externalising behaviour factors (aggressive and defiant; hyperactive and inattentive) and one internalising behaviour factor. Bivariate analyses revealed that authoritarian parenting is associated with aggressive and defiant behaviours and that permissive parenting and maternal education is associated with hyperactive and inattentive behaviours. Only the latter result remains significant in the multivariate analysis. Finally, no relationships were found between parenting practices and child internalising behaviours. Parenting behaviours explained a small proportion of the variance in child externalising behaviours, highlighting the need to educate parents in effective parenting practices.

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INTRODUCTION

Starting school is a milestone in a child's life. Children experience this transition in different ways, and for some, it can be a vulnerable time as they struggle to meet the new and varied demands placed on them (Masten & Gewirtz, 2006). Furthermore, how children adapt and cope with this transition has many consequences for later success in school (Dockett & Perry, 2001; Entwisle & Alexander, 1998; Perry & Weinstein, 1998; Rutter & Rutter, 1992).

A child's adjustment to school can be influenced by past life experiences, societal trends, and personal and family characteristics (Reynolds, Weissberg, & Kasprow, 1992). To ease the transition, a child needs to arrive equipped with the necessary skills to start school, such as social competence, self-reliance and having an interest in learning (Fabian & Roberts, 2006). Recently, the issue of school readiness has become a focus for many researchers as poor school readiness has been linked to later academic failure, poor socio-emotional adjustment and negative life outcomes such as unemployment and teenage pregnancy (Arnold et al., 1999; Brooks-Gunn, 2003; Hinshaw, 1992; Raver, 2003; Ross & Shillington, 1990), highlighting its importance for the healthy development of young children.

While traditionally school readiness was defined in terms of a child's cognitive ability (Kagan, Moore, & Bradenkamp, 1995), recent views assert that school readiness is a multidimensional concept which also encompasses a range of non-cognitive skills, such as a child's physical health and social and emotional development (Child Trends, 2001; Kagan et al., 1995). In particular, young children who exhibit behaviours such as aggression and social withdrawal at the start of school are at risk for a range of negative future outcomes such as poor academic achievement, difficulties in peer relationships, conduct disorder and depression (Harrington, Fudge, Rutter, Pickles, & Hill, 1990; Hinshaw, 2002; Hymel, Rubin, Rowden, & Lemare, 1990; McGee & Williams, 1991).

The extent of a child's behavioural difficulties is generally an indicator of his or her level of social, emotional and behavioural adjustment (e.g., Campbell, 1995; Dearing, McCartney, & Taylor, 2006). Therefore, it is crucial to examine child behaviour during the transition to school, in addition to the child, familial and contextual factors associated with this behaviour, to ease adjustment to school life. One factor which consistently plays a role in children's behaviour is parenting behaviour (Calkins & Degnan, 2006; Coolahan, 1997; Cunningham & Boyle, 2002; Snyder, Reid, & Patterson, 2003; Steinberg et al., 1994). Certain parenting practices can have a pervasive, negative effect on children, with studies indicating that harsh or unengaged parenting is associated with externalising and internalising behaviours in children (Bayer, Sanson & Hemphill, 2006; Brenner & Fox, 1998). Most studies on parenting behaviour and child outcomes focus on high- or mixed-socioeconomic status (SES) samples, and it is not intuitively obvious whether such results can be generalized to low income families. Children from low SES families may have a higher risk of being exposed to adverse parenting behaviours and displaying internalising and externalising behaviours in childhood, yet there is a lack of evidence on the moderating role of SES in explaining this relationship.

Thus, the aim of this study is to explore the association between maternal parenting behaviours and children's display of externalising and internalising behaviours in their first year of formal schooling in a disadvantaged urban community in Ireland. The following sections discuss child externalising and internalising behaviour, parenting behaviours and the existing research in an Irish context.

Child behaviour

Children's behavioural difficulties are often conceptualized as externalising and internalising behaviours. Externalising behaviours are under controlled behaviours and manifest when children cannot control, regulate or inhibit certain behaviours (Achenbach & Eldelbrock, 1978). They include behaviors such as aggression, defiance and hyperactivity. Children who demonstrate externalising behaviours have difficulty understanding the feelings and motives of others (Dodge, Pettit, McClaskey, & Brown, 1986; Rubin, Bream, & Rose-Kasnor, 1991) and thus, they may experience difficulties with peers (Milich & Landau, 1989). Externalising behaviours are more likely to be referred for clinical treatment than other childhood behaviours (Hinshaw & Lee, 2003) and are associated with poor social functioning, impaired academic success and later conduct disorders, delinquency and criminality (Farrington, 1991; Hinshaw, 2002; McGee & Williams, 1991).

Conversely, internalising behaviours are over controlled and include behaviours such as sadness, social withdrawal, and being worried or anxious. Such behaviours are associated with impaired social, academic and future professional functioning (Fombonne, Wostear, Cooper, Harrington, & Rutter, 2001; Lewinsohn, Rohde, Seeley, Klein, & Gotlib, 2003). Furthermore, children experiencing depression or anxiety are more likely to experience these symptoms in adulthood and are at an elevated risk of suicide and self harm (Lewinsohn, Rohde, & Seeley, 1994; Harrington et al., 1990).

It is well documented that the display of externalising and internalising behaviours in early childhood is associated with a range of negative outcomes in later childhood, adolescence and adult life (Campbell, 1995). Additionally, both types of behaviors become increasingly resistant to change over time (Frick & Loney 1999; Tremblay, 2000) illustrating the importance of examining these behaviours in early childhood. Thus examining the

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presence of such behaviours for children who may be at risk for poor developmental outcomes may inform and guide early intervention efforts (Farrington, 2005).

Parenting behaviour

With few exceptions, (e.g., Harris, 1998; Rowe, 1994; Scarr, 1992) there is a consensus that parents play a central role in the development of their children (see Maccoby & Martin, 1983 for review). Key dimensions of parenting include constructs reflecting parental acceptance or responsiveness, emotional warmth, and demandingness or control (Cummings, Davies, & Campbell, 2000; Maccoby & Martin, 1983). Traditionally, research in the field of parenting has focused on the conceptualization of parenting patterns based on parents' relative use of each of these dimensions to parent their children. Specifically, three parenting styles identified by Baumrind (1966; 1967) include authoritative, authoritarian, and permissive parenting styles.

The authoritative parenting style is characterised by high responsiveness and high control. Children of authoritative parents are expected to respect parental decisions and demands, but parents, in turn, are responsive to their child's opinions and needs (Maccoby & Martin, 1983). Authoritative parents are consistent, loving, and secure in their interactions with their child. These parents encourage independence by equipping the child with the skills to make their own decisions by providing reasons for rules and explanations for consequences of behaviours. At the same time, authoritative parents engage in open communication with the child, respect his or her autonomy, and recognize the child's perspective and interests (Baumrind, 1966; 1967; Maccoby & Martin, 1983). Research conducted by Baumrind (1967) demonstrates that children of authoritative parents are well socialised and independent. More recent research has elucidated links between authoritative parenting and a host of positive

outcomes in both the academic and social domains for children and adolescents, in that they perform well in school, experience high levels of well-being, and are better liked by their peers than children exposed to other types of parenting behaviours (Baumrind, 1991; Deković & Janssens, 1992; Hetherington, Henderson, & Reiss, 1999; Petito & Cummins, 2000; Taylor, Clayton, & Rowley, 2004). Furthermore, authoritative parenting is generally thought to promote the development of emotion regulation and socio-emotional competence in children and is negatively associated with children's display of externalising and internalising behaviours (Baumrind, 1989; Steinberg et al., 1994; Towe-Goodman & Teti, 2008).

The authoritarian parenting style, on the other hand, is characterised by low responsiveness and high levels of control. The authoritarian parent is not open to a child's differing viewpoints, is less nurturing, does not encourage the child to express himself/herself, exhibits high levels of directive control and imposes many rules while offering very little reason or explanation for rules and decisions (Baumrind, 1966; 1967; Shaffer & Kipp, 2007). Authoritarian parents raise children who are less content, less well liked by peers, less confident, and more reactive in stressful situations than the children of authoritative parents (Baumrind, 1967; Deković & Janssens, 1992; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Lerner, Easterbrooks, & Mistry, 2003). Additionally, authoritarian parenting is associated with externalising and internalising behaviours, problematic peer play interaction, higher stress levels and lower educational attainment (Coolahan, 1997; Cunningham & Boyle, 2002; Snyder et al., 2003; Steinberg et al., 1994).

The third parenting style, permissive parenting, is characterised by a lenient pattern of parenting in which few demands, responsibilities, or expectations are placed on the child (Baumrind, 1966; 1967; Shaffer & Kipp, 2007). Permissive parenting is characterised by parents who are non-controlling, non-demanding, and relatively warm. Permissive parents are

tolerant and accepting towards the child's impulses, use as little punishment as possible, make few demands for mature behaviour, and require considerable self regulation by the child (Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987). Children of permissive parents display lower levels of self-control and self reliance (Baumrind, 1967; Mauro & Harris, 2000), exhibit both externalising and internalising behaviours (Steinberg et al., 1994; Calkins & Degnan, 2006), and lack in social responsibility and independence (Baumrind, 1971, 1973; Lerner et al; 2003).

Parental disciplinary practices serve as a means for a child to learn both individual and societal moral values and standards, resulting in the child's internalisation of the consequences of his or her behaviours (Grusec & Goodnow, 1994). This internalisation can be understood from a behavioural theoretical viewpoint. For example, children's behaviour may be influenced via reinforcement by the parent such that desirable behaviours are rewarded, and through punishment, undesirable behaviours are succeeded by a negative consequence. Further to this, parents may model behaviours for their children, allowing them to learn behaviours through observation (Bandura, 1977). For example, classic studies by Bandura (1973) illustrate that children often imitate aggressive acts as modelled by aggressive adults and more recently, Muris, Steernme, Merckelbach, & Meesters (1996) found that increased exposure to fearfulness displayed by parents increased children's' exhibition of fearful behaviours.

Child Behaviour and parenting in Ireland

While the international literature draws consistent links between parenting and child behaviour, there has been relatively little research in an Irish context. Specifically, little research has assessed both parenting practices and the prevalence of young children's

externalising and internalising behaviours, or the possible impacts these parenting behaviours have on young children in Ireland. Indeed, there are no published studies documenting the rate of behavioural problems in children in Ireland. Additionally, research on Irish parenting styles is a relatively new area. To date, two reports have been published. The first used data from a national longitudinal study of nine year old children and reported that the majority of parents (77% mothers; 68% fathers) display an authoritative parenting style, followed by permissive parenting (16% mothers; 25% fathers) and finally, authoritarian parenting (4% mothers, 7% fathers) (Williams et al., 2009). Similar to these findings, a recently conducted national representative survey of Irish parents with children under the age of 18 found that parents tend to use authoritative behaviours more frequently than authoritarian behaviours (Nixon, Halpenny, & Watson, 2010). Findings from both of these studies are consistent with US-based findings.

However, as externalising and internalising behaviours emerge in early childhood, typically between the ages of two and five (Campbell, 2002), and effective parenting can be used to reduce such behaviours (Webster-Stratton, 1998), it is important to examine these relationships in younger children. Moreover, it is necessary to examine parenting within different groups of society as a number of studies have shown that economically disadvantaged parents are at risk for ineffective and overcontrolling parenting practices (Conger, McCarty, Yang, Lahey, & Kroop, 1984; McLoyd, 1998; Scaramella, Neppl, Ontai, & Conger, 2008). Thus, children from low SES families are particularly vulnerable during the transition to school (Duncan & Brooks-Gunn, 1997). This is reinforced by the deficits in vital cognitive and non-cognitive skills typically experienced by children from low SES backgrounds at school entry (Janus & Duku, 2007).

While the existing findings provide a useful starting point, a more in-depth study of how parenting is related to child outcomes, especially in early childhood, is warranted in an Irish context. Examining this relationship as a child transitions to school can inform not only the literature, but also interventionists and practitioners working with families and children as they begin school. This study examines the relationship between self-reported parenting behaviours of mothers from a low SES background and child externalising and internalising behaviours as rated by their teachers in their first year of formal schooling. The study also investigates the potential role played by child gender, number of siblings, parental relationship status, maternal education and employment and social welfare dependency, in mediating the relationship between parenting practices and child behaviour.

Hypotheses of the present study

In accordance with the literature, the present study hypothesises that maternal authoritative parenting will be negatively associated with child externalising and internalising behaviours, while maternal authoritarian and permissive parenting will be positively associated with child externalising and internalising behaviours.

METHOD

Participants

Home caregivers and teachers of children attending their first year of school in a disadvantaged urban area of Ireland were eligible for participation in the study. This area was selected due to its designated disadvantaged status which is characterised by the low educational attainment of the adults residing in the community and the high percentage of families in receipt of social welfare and living in local authority housing. All primary schools

located in this area were included in the study. There were 288 eligible pupils across five primary schools. In total, 223 caregivers (response rate = 77%) completed questionnaires regarding their parenting behaviour. Home caregivers provided consent for teachers to complete questionnaires regarding the behaviour of 228 children. Teachers completed questionnaires on 224 of these children (response rate = 98%), capturing information for 78% of eligible children. Given the differential relationships between maternal and paternal parenting and child behaviour (Amato, 1994; Davis, Hops, Alpert, & Sheeber, 1998) and as mothers tend to be the primary caregivers (Pleck, 1997), the present analyses focus on the relationships between maternal parenting behaviours and child behaviour. The majority of the home caregiver respondents (91%) were the child's biological mother, resulting in a sample size of 197 maternal reports of parenting behaviour and 197 teacher reports of child behaviour.

Demographics

The mean age of participating mothers was 30.5 years ($SD = 5.47$), while 87% ($n = 171$) were Irish, and 9% ($n = 18$) were Irish Travellers. Almost one half of the sample (47%, $n = 93$) had a partner living in the household. Just over half of the cohort (51%; $n = 100$) had a Junior Certificate qualification or higher (i.e. three years of secondary school or more), 41% ($n = 81$) were in employment, and 63% ($n = 124$) were in receipt of social welfare. The average child age was 4.7 years ($SD = 0.44$), over half of the sample were male (57%; $n = 112$) and they had on average 1.7 siblings ($SD = 1.45$). In total, 21 teachers from five different schools completed questionnaires for students in 21 classrooms. All teachers were female, with a mean age of 35.9 years ($SD = 11.1$). On average, they had been teaching for 11 years ($SD =$

10.5), they had been in the current school for 9.4 years (*SD* = 10.25), and had been teaching

Junior Infants (the first year of formal schooling) for 3.9 years (*SD* = 3.7).

Procedure

All procedures were approved by the University's ethics board and written consent was

obtained for all mothers and teachers. Additionally, written parental consent was obtained for

all children for whom teachers completed a questionnaire.

Data collection

Data collection took place in the first term of two consecutive academic years beginning in

2008 and 2009. Mothers completed a paper and pen questionnaire assessing parenting

behaviours. Teachers completed an online questionnaire related to the child's behaviour

which was accessed via a secure website. Each teacher questionnaire took approximately 10

minutes per child to complete. Children began school in early September of the academic year

and teachers completed questionnaires regarding the children's behaviour during October

through December of that year, giving them sufficient time to be cognisant with the child's

capabilities. Focus groups were conducted with the teachers prior to survey administration,

wherein they agreed that one month of teaching a class was sufficient time to confidently

answer questions regarding the children's behaviour.

Instruments

Parenting behaviours

Mothers completed the Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson,

Mandelco, Olsen, & Hart, 2001), a 32 item self-report instrument in which parents rate their

frequency of participation in certain behaviours toward their child on a Likert type scale ranging from one (Never) to five (Always). The PSDQ yields three parenting constructs in line with Baumrind's (1966; 1967) original hypothesised parenting dimensions of authoritative, authoritarian, and permissive parenting. The authoritative domain ($\alpha^2 = .84$) is comprised of 15 items such as "I give comfort and understanding when my child is upset" or "I am responsive to my child's feelings and needs." The authoritarian domain ($\alpha = .80$) includes 12 items including "I yell or shout when my child misbehaves" or "I use physical punishment as a way of disciplining my child." The permissive domain ($\alpha = .72$) consists of five items, such as "I state punishments to my child and do not actually do them" or "I find it difficult to discipline my child." Total scores on each construct are calculated using the mean score of all items within each construct, with higher scores indicating a higher level of involvement in the particular type of parenting behaviour.

Child externalising and internalising behaviours

The teacher questionnaire included a battery of 15 items which are commonly used in the literature to assess externalising and internalising behaviour of the children. Teachers were presented with these items and asked how often each child engages in the behaviour on a Likert type scale ranging from one (Never or Not True) to three (Often or Very True). These items were subjected to an exploratory factor analysis, which elucidated three factors described below.

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[2] Alpha coefficients represent cohort specific standardised Cronbach alpha coefficients (Cronbach, 1951).

Analytic Strategy

As the data were not normally distributed, non-parametric tests were used for all bivariate analyses. The Wilcoxon Signed-Rank test was used to compare differences in levels of parenting behaviours and child behaviours. Spearman's rank correlations were used to investigate associations between parenting behaviours and child behaviours. Spearman's Rank correlations were used to assess associations between child behaviours and continuous demographic variables, while the Mann-Whitney U test was used to assess group differences in child behaviours and categorical demographic variables. Similarly, Spearman's rank correlations and the Mann-Whitney U test were used to observe relationships between parenting behaviours and demographic variables.

Upon completing the non-parametric bivariate tests, multiple regression was used to test whether any observed associations between parenting behaviours and child behaviours remained when certain demographic variables were controlled for, and how much variance in child behaviour could be explained by the levels of parenting behaviours. Multiple regression was used as the sample size was adequate, the data did not violate any assumptions regarding multicollinearity or outliers, and was deemed appropriate on inspection of the Normal Probability Plot of the regression standardised residuals, and the residuals scatterplot. Observations on which more than 50% of responses were missing were excluded from all analysis. This resulted in excluding 2-3% of data on the parenting behaviour measures and 4-5% of data on the child behaviour measures.

RESULTS

Factor analysis of child behaviour items

An exploratory maximum likelihood factor analysis was performed using an oblique rotation to create meaningful constructs of the 15 teacher rated items assessing child externalising and internalising behaviours. The data were assessed for suitability for factor analysis and a significant value for Bartlett's Test of Sphericity (Bartlett, 1954) and a Kaiser-Meyer Olkin Index of greater than 0.6 indicated adequate factorability of the data (Tabachnick & Fidell, 2001). An agreement between Kaiser's criterion and observation of the scree plot resulted in the extraction of three factors. Factor loadings and intercorrelations are presented in Table 1. Two of these factors relate to externalising behaviour, and one to internalising behaviour. Specifically, an *aggressive and defiant behaviours* (α = .93) factor was composed of seven items such as "Gets into physical fights" and "Doesn't feel guilty after misbehaving;" the *hyperactive and inattentive behaviours* (α = .93) factor comprised five items such as "Can't sit still, is restless" and "Is inattentive;" and an *internalising behaviours* factor (α = .83) consisted of three items such as "Seems worried" or "Appears unhappy, sad or depressed." As indicated at the bottom of Table 1, the two externalising behaviour factors were highly positively correlated, while they were both positively correlated with the internalising behaviour factor, albeit to a lesser extent.

<Insert Table 1 Here>

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Descriptive analyses

Child behaviour

Teachers reported that children display low levels of aggressive and defiant behaviours ($M =$ 1.30, $SD = 0.48$) and internalising behaviours ($M = 1.48$, $SD = 0.54$), while they more frequently display hyperactive and inattentive behaviours ($M = 1.79$, $SD = 0.69$). Accordingly, teachers reported that children display significantly more hyperactive and inattentive behaviours than aggressive and defiant behaviours ($Z = -5.01$, $p<.001$) or internalising behaviours ($Z = -9.30$, $p<.001$), while they participated in significantly higher levels of internalising behaviours than aggressive and defiant behaviours ($Z = -3.52$, $p<.001$).

Regarding level of behaviours, a relatively small proportion of children often engage in aggressive and defiant behaviours (4.3%) and often engage in internalising behaviours (5.8%). While a high proportion of children often engage in hyperactive and inattentive behaviours (20%). Children are defined as displaying these behaviours if they are categorised by teachers as 'often' displaying more than 50% of the items within each behavioural domain.

Parenting behaviour

Mothers reported using low levels of authoritarian ($M = 1.66$, $SD = 0.44$) and permissive parenting behaviours ($M = 2.23$, $SD = 0.82$), while they reported engaging more frequently in authoritative parenting behaviours ($M = 4.22$, $SD = 0.52$). Accordingly, mothers used a significantly higher level of authoritative parenting behaviours than authoritarian and permissive parenting behaviours ($Z = -12.01$, $p<.001$; $Z = -11.66$, $p<.001$) and a significantly higher level of permissive parenting than authoritarian parenting ($Z = -8.82$, $p<.001$).

Bivariate analyses

Parenting behaviour and child behaviour

Bivariate correlations between parenting behaviours and child externalising and internalising behaviours are presented in Table 2. As illustrated, authoritarian and permissive parenting were positively associated with child aggressive and defiant behaviours, while permissive parenting also was positively associated with child hyperactive and inattentive behaviours. No significant relationships emerged between any of the three parenting behaviours and child internalising behaviours. The following sections examine the potential mediating role underlying these relationships by analysing the relationship between child and parent behaviour and a range of individual and family characteristics

<Insert Table 2 Here>

Child behaviours and individual and family characteristics

No significant associations were present in the bivariate correlations between child behaviour and parent and child age. However, a positive and significant association was found between the number of siblings and child hyperactive and inattentive behaviours (r_s = .15, p = .04). Table 3 reports the results of Wilcoxon Signed-Rank tests examining relationships between child behaviours and child gender, the presence of a partner in the household, maternal education, maternal employment, and social welfare status. Maternal education was dichotomised into lower secondary school or below, and Junior Certificate qualification and higher. Social welfare status is used as a proxy for socioeconomic status. Children of parents with lower education displayed higher levels of hyperactive and inattentive behaviours, while

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all other relationships between individual and family demographics and level of child behaviours did not reach significance.

Parenting behaviours and individual and family characteristics

No significant associations were present in the bivariate correlations between parenting behaviour and parent age, child age and number of siblings. Table 3 reports the results of Wilcoxon Signed-Rank tests examining relationships between parenting behaviours and child gender, the presence of a partner in the household, maternal education, maternal employment, and social welfare status. Only one significant relationship emerged, whereby parents in receipt of social welfare engaged in more permissive parenting behaviours.

<Insert Table 3 Here>

Multivariate analyses

Regression analyses were conducted for parent behaviours that were significantly correlated with one or more of the child behaviour constructs in the bivariate analysis. As a result, no regression analyses were performed for child internalising behaviours. Any demographic variables which were shown to be significantly related to the relevant parenting or child behaviours were controlled for in the multivariate analyses.

Model 1 - Aggressive and Defiant Behaviours

Table 4 presents the standardised betas from a multiple regression modelling the relationship between authoritarian and permissive parenting and child aggressive and defiant behaviours, while controlling for social welfare status. The model was significant, $F(3, 159) = 3.77$,

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$p<.05$, and accounted for 6.8% of the variance in child aggressive and defiant behaviours. Neither authoritarian nor permissive parenting was significantly associated with child aggressive and defiant behaviours in the multivariate analysis. A similar relationship was found in regard to social welfare status.

Model 2 - Hyperactive and Inattentive Behaviours

The bottom section of Table 4 presents the results of the multiple regression examining the relationship between permissive parenting and child hyperactive and inattentive behaviours, while controlling for social welfare status, number of siblings, and maternal education. The model was significant, $F(4, 159) = 3.36$, $p<.05$, and accounted for 8% of the variance in child hyperactive and inattentive behaviours. Permissive parenting made a significant unique contribution to the model, accounting for 3.1% of the total variance. Additionally, maternal education made a significant contribution to the model, accounting for 2.4% of the overall variance in child hyperactive and inattentive behaviours. Neither number of siblings or social welfare status was significantly associated with child hyperactive and inattentive behavioural problems.

<Insert Table 4 Here>

DISCUSSION

This study explored the relationships between parenting behaviours and child internalising and externalising behaviours. A number of hypotheses of the study were supported. Specifically, maternal authoritarian and permissive parenting behaviours were associated with child externalising behaviours in the bivariate analyses. However, neither forms of parenting

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were significantly unique predictors of child aggressive and defiant behaviours in the multivariate analysis. In addition, permissive parenting and maternal education emerged as significantly unique predictors of child hyperactive and inattentive behaviours in the multivariate analysis. Finally, no relationships were found between any of the three parenting behaviours and child internalising behaviours or between authoritative parenting and child externalising or internalising behaviours exhibited in the child's first term at school.

The role of SES

As this study was conducted within a low SES population, which is typically characterised as experiencing both adverse parenting behaviours and child behavioural problems, these findings may have important implications for understanding the mechanisms underlying these relationships. Previous research shows that a significant proportion of children enter school exhibiting disruptive behaviours such as aggression and hyperactivity, with a recent study indicating that almost 14% of children transitioning to school in America have an externalising disorder and 11% have an internalising disorder (Carter et al., 2010). The present study finds that one-fifth of children from this low SES cohort often display hyperactive and inattentive behaviours at school entry, with approximately 5% often displaying aggressive and defiant behaviours and internalising behaviours.

While these results are not directly comparable to the Carter et al. (2010) study, it is suggestive that children in this cohort are displaying high rates of hyperactivity and inattentiveness. This is comparable with other studies which find that children from low SES families display a higher prevalence of behavioural problems than do children from middle class backgrounds (Adams, Hillman, & Gaydos, 1994; Kraatz Keiley, Bates, Dodge, & Pettit, 2000; Scaramella et al., 2008). The display of these behaviours may indicate underlying

problems which affect a child's transition and adjustment to school, through their relationships with peers and teachers. Hyperactive and inattentive behaviour is associated with a host of long-term negative outcomes such as behavioural problems, academic and social difficulties, and criminality (Spira, & Fischel, 2005; Babinski, Hartsough, & Lambert, 1999). Thus, identifying the prevalence of such behaviours early in childhood is necessary to prevent the escalation of these behaviours later in life.

This study identifies some possible mechanisms underlying the relationship between SES and child behavioural difficulties. The results show that children of mothers with relatively less education, within this low SES cohort, engaged in more hyperactive and inattentive behaviours. This supports previous studies which have found that children of less educated mothers display more problematic behaviours than those from higher educated families (Mistry, Vandewater, Huston, & McLoyd, 2002). Parents who experience lower educational attainment ask their children fewer questions, use more directives and are less likely to engage in conversations with their children or provide them with contingent responses compared to parents with higher levels of education (Hoff-Ginsberg, 1998). Thus, these parents may be less likely to engage in interactions with their children that promote internalization of values, standards and norms, and in turn, their children will be less able to self-regulate and behave appropriately, follow rules and obey instructions in a classroom setting.

Another possible explanation for the high rate of hyperactive and inattentive behaviours within this low SES population is that low income parents are more likely to engage in adverse parenting behaviours. The results show that parents who were in receipt of social welfare payments engaged more frequently in permissive parenting behaviours. Social welfare status was used in this study as a proxy for socioeconomic status. Many social

welfare payments are means tested in Ireland, therefore receiving these payments serves as a good proxy for low income. Lower SES families are likely to experience financial hardship which may leave mothers feeling preoccupied, frustrated, worried and helpless. Such life circumstances may result in fewer resources to effectively discipline children (McLoyd, 1990), ultimately resulting in a greater display of permissive parenting behaviours by these mothers.

While it is not the purpose of this paper to disentangle the causal role played by SES in influencing children's behaviour, it does provide some insight into the mediating role played by parenting behaviour. In particular, the association between child externalising behaviours and maternal parenting behaviours identified in this study highlights one contextual area that requires focus when examining the factors that influence a child's successful transition to school within low SES communities. These relationships are discussed in more detail below.

Parenting Behaviours and Child Externalising Behaviours

Consistent with the US-based literature, the present study elucidated relationships between authoritarian parenting and child aggressive and defiant behaviours within an Irish context. Several psychological theories may help to explain this association. Firstly, social learning theory argues that children learn through observation (Bandura, 1977). Thus, a parent displaying aggressive or defiant behaviours is modelling these behaviours for their child which sends the message that such behaviours are socially acceptable. This may result in an increased use of these behaviours by the child. Authoritarian parenting behaviours include the use of power-assertive techniques such as threats, demands, and deprivation of privileges in order to discipline children (Chen, Dong, & Zhou, 1997). Therefore, children exposed to such

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techniques may consider them as appropriate ways to interact with others. Additionally, while these techniques may not be detrimental when used by parents who are also warm and nurturing, when combined with harsher parenting they may serve to reinforce a child's belief that rules are external to the self, and therefore they will not internalise rules of behaviour effectively (Grusec & Goodnow, 1994; Hoffman, 2000). As a result, these children will not consistently monitor their own behaviours and may not understand the consequences of aggressive and defiant acts in a classroom. This is an area for concern as the display of disruptive behaviours in a classroom may have negative consequences for a child's relationships with his or her teachers and peers, who are particularly important in easing school transitions (Ladd, 1990).

The study also found evidence of a relationship between permissive parenting and measures of aggression and defiant behaviour. Permissive parents rarely set boundaries for children, nor do they explain the consequences of behaviours (Baumrind, 1967). As a result, children of permissive parents may not be able to effectively internalise societal standards and accordingly possess adequate self-control to act in socially acceptable ways (Baumrind, 1967). The transition to school for children of permissive parents may then be particularly difficult as they are required to follow rules and behave within boundaries, which they may not be accustomed to doing in the home context. This juxtaposition between what is expected of children in their new environment and what they are allowed to do in their home life may result in feelings of frustration and confusion, which in turn may manifest in aggressive and defiant behaviours. Furthermore, while permissive parents are lax in their discipline, they are still warm towards their children (Baumrind, 1966; 1967). This warmth in the face of misbehaviour may serve to positively reinforce any negative behaviour, which can then manifest in the classroom.

Permissive parenting also was associated with another form of child externalising behaviour - hyperactivity and inattentiveness. Children of permissive parents are required to regulate their own behaviour in the absence of parental direction (Dornbusch et al., 1987). Therefore, it is not surprising that these children may display more hyperactive and inattentive behaviours. Children of permissive parents will experience difficulty in effective self-regulating (Dornbusch et al., 1987), and as a result, may find it harder than other children to adjust to class routines, concentrate, or engage successfully in appropriate academic habits. In addition, children of permissive parents are less socially responsible than other children (Lerner et al., 2003), and may not respect authority figures. Therefore, they may not place much value in obeying boundaries set by teachers.

Of the three parenting behaviours, no relationships emerged between authoritative parenting behaviours and child externalising behaviours as hypothesized. A possible explanation for this is that this study adopted a unidimensional approach and examined parents' mean level of involvement in particular types of parenting behaviour. To demonstrate, while parents may have scored high on authoritative parenting, this did not restrict them from scoring high on authoritarian parenting. Therefore, identifying links between the positive parenting behaviours associated with authoritative parenting and child behaviours may prove more difficult than if a typological approach to parenting (i.e. classifying mothers as a particular "type" of parent) was used. The authors felt the unidimensional approach was the most appropriate method given the cross-sectional design of this study.

Parenting behaviours and child internalising behaviours

No significant relationships emerged between parenting behaviours and child internalising behaviours displayed in the classroom. The role of the teacher must be considered in explaining this finding. A teacher is required to manage the class as a whole, while simultaneously guiding the children as individuals. A child displaying internalizing behaviours, such as appearing shy or unhappy, may be more difficult to identify compared to a child acting aggressively, particularly in the school context where quiet children are often considered "veritable models of proper school decorum" (Rubin & Coplan, 2004, p. 511). Children engaging in externalizing behaviours may therefore receive more attention from teachers than those displaying internalizing behaviours.

In addition, the display of behaviours such as aggression is more likely to evoke negative affect in the teacher, thus it is possible that teachers are better able to recall incidents of externalising behaviours more readily than internalising behaviours (Mills & Rubin, 1990). Finally, the use of teacher reports on child behaviour may also play a role. A study by Hinshaw, Han, Erhardt, & Huber (1992) found that parent ratings of child behaviour predicted observed child isolation and withdrawal, while teacher ratings did not. It is therefore possible that teachers may experience more difficulty than parents in appraising an individual's display of internalising behaviours.

Individual and family characteristics and child and parent behaviour

While the SES dimensions of maternal education and social welfare status were associated with some aspects of child behaviour and parent behaviour respectively, few of the other potential mediating factors were associated with either child or parent behaviour. The only other significant finding was a relationship indicating that children with more siblings

engaged in more hyperactive and inattentive behaviours. Research has shown that a woman with more children experiences an increase in depressive symptoms and a decline in well-being (Pearlin & Johnson, 1977; Russo & Zierk, 1992). Therefore, mothers with multiple children may not have the emotional resources to motivate themselves to discipline their children effectively. Additionally, an increase in family size can result in less attention being paid to individual children (Lawson & Mace, 2009); hence the presence of more siblings may encourage a child to engage in "acting-out" behaviours more frequently in order to gain parental attention.

The lack of any significant relationships for child gender, lone parenthood, and maternal employment, and the relatively few significant relations identified for maternal education, social welfare status, and number of siblings, in relation to either child or parent behaviour is contrary to much of the established literature. However, this may be due to the relatively small sample size employed, or due to the focus on a low SES community which reduces the heterogeneity within the sample in regards these characteristics.

Multivariate Analysis

The multivariate analysis found that permissive parenting behaviours and maternal education were associated with child hyperactive and inattentive behaviours. While permissive parenting behaviour was the key factor associated with child hyperactive and inattentive behaviours, maternal education also emerged as central to explaining the variance in child hyperactive and inattentive behaviours. It is important to note, however, that these two variables explained a very small proportion of the total variance in child behaviour.

While the aggressive and defiant behavioural model was statistically significant, none of the variables emerged as significantly contributing to the variance in aggressive and defiant

behaviours. That neither authoritarian nor permissive parenting behaviour emerged as uniquely predicting the outcome may be explained by the unidimensional approach adopted in this study to examine parenting behaviours. There are two commonly used approaches to the study of parenting: the dimensional approach and the typological approach. The present study adopted a dimensional approach seeking to measure separate dimensions of maternal parenting behaviour to explore their relationships with child internalising and externalising behaviours. As the present study used mean scores on all three types of parenting behaviours, rather than parenting typologies based on relative use of multiple behaviours, a certain amount of overlap in permissive and authoritarian parenting cannot be ruled out. Additionally, these two parenting behaviours were moderately correlated ($r = .34$, $p<.001$) further supporting this argument.

Limitations and Strengths

The present study has several limitations and strengths. Firstly, while the surveys were completed anonymously, mothers reporting their own parenting behaviours may wish to portray themselves in a positive light, which possibly affected their responses. The issue of social desirability is one of the most common sources of bias in questionnaire design (Nederhof, 1985) and cannot be dismissed in this study. Additionally, the present study did not include measures of child and maternal factors, such as child temperament and maternal stress, both of which have been reported to be strongly associated with child behaviour (Anthony et al., 2005; Karreman, de Haas, van Tuijl, van Ahen, & Deković, 2010). Inclusion of such items may have explained a higher proportion of the variance in child externalising behaviours and further disentangled the complex relationship between parenting practices, child and parent demographics, and child externalising and internalising behaviours.

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In addition, there are several strengths of the present work. First, this study is the first to investigate the relationship between parenting and child externalising and internalising behaviours in a low income population in Ireland and as a result can act as a foundation and stimulus for further research into the area. Second, the survey received a response rate from both parents and teachers that is higher than commonly found in studies involving low SES families. Third, teacher reported child behaviour scores, coupled with parent reported parenting behaviours, are used to help overcome problems of shared method variance that arise when the same person rates both the independent and dependent variables in analyses.

Practical implications & future directions

The teachers included in this study reported that a high number of pupils in their care were engaging in externalising behaviours, and as previously discussed, the display of these behaviours, particularly at such a young age may have negative consequences for their future development. Therefore, it is critical that both teachers and parents are educated in how best to discipline and guide children, and how to react to the display of negative behaviours in order to reduce such behaviours to appropriate levels. One method which can be used to prevent and deal with disruptive behaviours is the use of early intervention that involves educating parents on the type of appropriate parenting practices and behaviours to use with their child to facilitate their child's development. There is a consensus that early intervention for behavioural problems is the key to ameliorating disruptive behaviours. For example, there is evidence that parenting programmes such as Triple P (Markie-Dadds & Sanders, 2006) and Incredible Years (Webster-Stratton & Reid, 2006) are effective in improving parenting practices and reducing child behavioural difficulties. The findings from the present study support the importance of such interventions.

Parenting practices are generally considered to be one of the most influential determinants of child outcomes. While this study points to an association between negative parenting behaviours and child externalising behaviours, parenting practices only explained a small amount of variance in child behaviours. These findings highlight the need to investigate the etiology of externalising and internalising behaviour in early childhood from a broad ecological perspective. The merging of the new, unfamiliar school environment with the family environment will have an important influence on shaping the child's growth and development (Bronfenbrenner, 1979). It is crucial that a child is equipped with the skills to effectively cope with this challenge. As a result, future work should examine other child, parental, familial, neighbourhood, peer, and schooling factors that may have an impact on child behaviour and subsequent functioning in early childhood.

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Table 1

Rotated factor loadings on child aggressive & defiant, hyperactive & inattentive and internalising behaviours

	Aggressive & Defiant	Hyperactive & Inattentive	Internalising
Factor loadings			
Kicks, bites, hits other children or adults	.858	-	-
Physically attacks people	.858	-	-
Gets into physical fights	.821	-	-
Doesn't feel guilty after misbehaving	.785	-	-
Refuses to comply with requests or rules	.775	-	-
Bullies or is mean to others	.757	-	-
Punishment doesn't change behaviour	.657	-	-
Unable to concentrate or pay attention for long	-	.930	-
Is distractible, has trouble sticking to any activity	-	.867	-
Fidgets	-	.854	-
Is inattentive	-	.831	-
Can't sit still, is restless	-	.774	-
Appears fearful or anxious	-	-	.844
Appears worried	-	-	.828
Seems unhappy, sad or depressed	-	-	.672
Intercorrelations			
Hyperactive & inattentive behaviours	0.59***	-	-
Internalising behaviours	0.18**	0.17*	-

Table 2

Bivariate Correlations between Parenting Behaviours and Childrens' Externalising and Internalising Behaviours

	Authoritative parenting	Authoritarian parenting	Permissive parenting
Aggressive & defiant behaviours	-0.01	0.24***	0.19**
Hyperactive & inattentive behaviours	-0.02	0.14	0.17*
Internalising behaviours	0.02	0.06	0.08

*p<.05. **p<.01. ***p<.001.

Table 3

Wilcoxon Signed-rank Results for Group Comparisons on Child and Parent Demographics and Child and Parent Behaviours

	Child gender			Partner in house-hold			Maternal education			Maternal employment			Social welfare status		
	Male (*n*=112)	Female (*n*=85)	Z	No partner (*n*=93)	Partner present (*n*=99)	Z	Less than JC (n=42)	JC or more (*n*=144)	Z	Not employed (*n*=98)	Employed (*n*=81)	Z	Not in receipt (*n*=45)	In receipt (*n* =124)	Z
	M (*SD*)			*M* (*SD*)			*M* (*SD*)			*M* (*SD*)			*M* (*SD*)		
Aggressive & defiant behaviours	1.35 (0.52)	1.24 (0.43)	-1.48	1.31 (0.51)	1.26 (0.42)	-0.58	1.16 (0.28)	1.31 (0.52)	-1.71	1.32 (0.54)	1.25 (0.40)	-0.15	1.44 (0.61)	1.27 (0.45)	-0.97
Hyperactive & inattentive behaviours	1.87 (0.71)	1.69 (0.65)	-1.79	1.86 (0.66)	1.72 (0.70)	-1.69	1.72 (0.65)	1.78 (0.68)	-2.40*	1.85 (0.71)	1.70 (0.63)	-1.46	2.04 (0.75)	1.73 (0.65)	-0.43
Internalising behaviours	1.52 (0.54)	1.43 (0.53)	-1.49	1.46 (0.50)	1.51 (0.57)	-0.38	1.488 (0.50)	1.47 (0.55)	-0.75	1.48 (0.57)	1.51 (0.52)	-0.85	1.44 (0.52)	1.51 (0.55)	-0.39
Authoritative parenting	4.22 (0.49)	4.22 (0.56)	-0.25	4.25 (0.50)	4.19 (0.53)	-0.63	4.32 (0.47)	4.19 (0.53)	-0.55	4.27 (0.50)	4.16 (0.53)	-1.39	4.27 (0.50)	4.22 (0.50)	-1.41
Authoritarian parenting	1.66 (0.43)	1.67 (0.46)	-0.57	1.68 (0.42)	1.65 (0.47)	-0.93	1.59 (0.40)	1.70 (0.46)	-0.07	1.66 (0.43)	1.68 (0.47)	-0.39	1.69 (0.46)	1.67 (0.44)	-1.49
Permissive parenting	2.25 (0.82)	2.20 (0.81)	-0.47	2.13 (0.77)	2.31 (0.86)	-1.36	1.92 (0.65)	2.28 (0.82)	-0.68	2.23 (0.77)	2.18 (0.84)	-0.76	2.31 (0.86)	2.19 (0.79)	-2.50**

*p<.05. **p<.01.

Table 4

Regression Results on Child Externalising Behaviours

Dependent Variable	Predictors	β
Aggressive & defiant behaviours	Authoritarian parenting	.146
	Permissive parenting	.116
	Social welfare status	-.099
Hyperactive & inattentive behaviours	Permissive parenting	.181*
	Social welfare status	.035
	Number of siblings	.109
	Maternal education	-.161*

*$p<.05$.