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Making the Transition to Primary School: An Evaluation of a Transition Program for Parents

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ABSTRACT

The transition to primary school is an important time for both children and parents. The aim of this randomized controlled study was to assess the effectiveness of a Transition to Primary School Parent Program in strengthening parent knowledge and confidence to manage the transition process, increasing parent involvement in their children's learning, and improving child adjustment to starting school. Participants were 576 parents from 21 primary schools in Victoria, Australia. Results revealed that parents who received the intervention reported higher parental self-efficacy to help their children make the transition to school than parents in the control condition (i.e., routine transition practices provided by the school). These parents also reported greater parent involvement at school during the children's first term at school than parents in the control condition. There were no differences between the intervention and control groups on parent and teacher report of children's adjustment to school. This research is an important step towards developing empirically supported school transition programs focusing on parents.

Keywords: Transition, parent, school, effectiveness

INTRODUCTION

Starting primary school is a significant milestone for all children and their families. It can be both an exciting and challenging time as children adjust to the many changes that this transition brings. They enter a new physical and social environment with new teachers and children of different ages to interact with, and new friends to make (Ladd, 1990). The school day may be

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longer than they are used to, and they may experience changes in family routines and the amount of time they spend with parents or caregivers. There are new rules, learning activities, and greater expectations of their academic, self-care and social skills (Ladd, 1990; Love, Logue, Trudeau, & Thayer, 1992; Rice & O'Brien, 1990). Coping well and adjusting to the changes brought about by this time is important as research indicates that a successful start to school is associated with future school success and academic achievement (Belsky & MacKinnon, 1994; Ensminger & Slusarcick, 1992; Entwisle & Alexander, 1998; Gutman, Sameroff, & Cole, 2003). Better adjustment to school has also been associated with more stable peer relationships and better school attendance (Ladd & Price, 1987).

Most children adjust well to beginning school, however, for some children it can be problematic and they may develop adjustment difficulties. Studies have documented that approximately 10-21% of children experience some level of difficulty adjusting to the transition to school (Hausken & Rathbun, 2002; Rimm-Kaufman, Pianta, & Cox, 2000). A large population survey of parents of children who had started school in Victoria, Australia in 2004 revealed that approximately 9.2% of parents reported that their child did not look forward to going to school (Griffin, Nadebaum, & Edgecombe, 2006). Common adjustment difficulties include reluctance to go to school and complaints of being sick (Hausken & Rathbun, 2002), increased worries, fears, crying, temper tantrums, and showing negative attitudes towards school (Ladd & Price, 1987). Problems associated with working independently and following instructions have also been reported (Rimm-Kaufman et al., 2000). While these difficulties will decrease over time for most children, some are at risk of continued problems with school attendance. In fact, research has shown that the incidence of school refusal is highest in children aged 5 and 6 years (Ollendick & Mayer, 1984). Given the impact that starting school can have on children, it is not surprising that schools put much time and energy into helping children make a positive start to school.

Common School Transition Practices

Transition practices vary widely among schools and teachers. They generally focus on helping children settle into school by offering orientation or school visits before school commences, and allowing them to become familiar with the new school environment, their new teacher, classroom activities, and peers (La Paro, Kraft-Sayre, & Pianta, 2003; Margetts, 2002). Teachers may also prepare children for the transition by visiting them at their preschool and obtaining information about them from their preschool teacher. Such transition activities are important as Australian research indicates that participation in school orientation visits are associated with better adjustment to the first year of school, fewer behaviour difficulties, and higher levels of social skills and academic competence (Margetts, 1997). Similarly, Schulting, Malon, and Dodge (2005) revealed that such practices generally have a modest positive effect on students' academic achievement. It is also important to note that such outcomes are better for children, especially boys, when they have had the opportunity to participate in a number of school transition activities (six or more) rather than single events (Margetts, 2000).

Transition practices that focus on parents typically involve an interview during the school enrolment process, school visits, and written material providing practical information about the school (i.e., fees, uniforms, start and finish times) (Margetts, 2000; Pianta, Cox, Taylor, & Early, 1999). Although there is some evidence that information-based transition practices involving parents have been associated with greater parent-initiated school involvement (Schulting et al., 2005), it has been recommended that parents need to be better informed about the specific challenges facing children as they start school, and provided with opportunities to learn more about how to help their child adjust to this transition (Margetts, 2000).

The Importance of Supporting Parents during Transition

The focus on preparing and supporting parents during transition is consistent with (Kraft-Sayre & Pianta, 2000) Ecological and Dynamic Model of Transition. This model highlights the importance of the partnership and shared responsibility of children, parents/family, teacher/school and community in the transition to school. The transition period is viewed as a process all partners experience rather than an event that happens only to the child. Given the significant changes and common reactions associated with starting school, parents may feel unprepared for

the transition process and be uncertain about how to help their child settle into school. Research shows that parents often anticipate their children will experience difficulties during this time (Landesman Ramey, Gaines Lanzi, Phillips, & Ramey, 1998).

In a recent study of 132 parents of children starting school, most expressed concern about their child's adjustment to starting school. They were particularly concerned about behaviour difficulties, academic skills, their ability to get along with peers, and follow instructions (McIntyre, Eckert, Fiese, DiGennaro, & Wildenger, 2007). This study also reported that approximately 70% of parents wanted information about how they could help their children prepare for school. These findings suggest that parents need to be well informed, knowledgeable and confident about managing the transition process.

Although providing support to parents to increase their knowledge and confidence might be important in assisting children to adjust to school, there has been limited research into exploring the relationships between parent factors and child transition outcomes. In a large Australian study of 763 parents and their children starting primary school, high parental efficacy to manage transition was associated with better social adjustment outcomes for children as they start school (Giallo, Kienhuis, Treyvaud & Matthews, 2008). Furthermore, greater levels of parent worry about managing the transition period were associated with poorer academic and social adjustment outcomes for children as they start school, and with children's resistance to go to school. In other studies, a relationship between positive parent attitudes and feelings about school and children's successful adjustment to school has also been found (Dockett & Perry, 1999; Margetts, 2000). Although future work is need to identify specific parent characteristics and factors associated with transition outcomes for children, there is some evidence to suggest that parents may benefit from information and advice about: (a) activities to prepare their child for school, (b) helping their child to develop the skills needed to be more independent at school, (c) dealing with common reactions to starting school, (d) managing separation anxiety and other fears, (e) adjusting to new family routines, and (f) helping with reading and other homework activities. Schools are in an ideal position to embed this parenting information and support into their transition practices. It is important to note, however, to the best of the author's knowledge, no studies to evaluate the effectiveness of parent focused transition programs in improving children's transition to school have been conducted. The current study presents an evaluation of a school-based parent program to provide information and resources about how to best help children prepare for and manage the transition to school.

AusParenting in Schools Transition to Primary School Parent Program

The AusParenting in Schools Transition to Primary School Parent Program developed by the Parenting Research Centre is one element of the multi-component AusParenting in Schools Program designed to strengthen family-school partnerships. The Transition program, conducted in the school setting, assists parents to help their children make a successful transition to school.

The program provides families with an opportunity to (a) discuss strategies to help children adjust to starting school, (b) find out how they can get involved in their children's learning at home and school, (c) find out where they can go for further information and assistance on raising children, and (d) meet other families and build social networks. The program also provides schools with an opportunity to (a) offer ideas and suggestions about how families can get involved in their children's learning, (b) begin the process of forming and strengthening family-school partnerships, and (c) promote schools as places where families can go for information and advice on raising children. Information about the content and delivery of the program is outlined in the method section.

The program aims to enhance parents' knowledge and confidence in their ability to help their child make a smooth transition and manage any difficulties that may arise at this time. This is important as research shows that parents who are confident in their parenting abilities believe they can positively influence the learning, development and behaviour of children and are more likely to engage in positive parenting behaviours (Coleman & Karraker, 1997). Parents who are confident about their parenting are also more responsive to their children's needs (Donovan, Leavitt, & Walsh, 1997), and have active coping strategies to manage problems that arise (Wells-

Parker, Miller, & Topping, 1990). It is anticipated that these parenting characteristics would thus have a positive influence on children's adjustment to school.

A pilot investigation of the program has been conducted with 220 families from 6 schools in Victoria, Australia (Giallo, Baschuk, & Matthews, 2007). The schools were non-randomly allocated to either the intervention or control condition (i.e., standard transition program offered by the school involving school visits/orientation for children). Following participation in the program, parents reported fewer worries and concerns about their children's transition to school than parents in the control condition, while worry and concern for parents in the control condition increased over time. Results from this pilot investigation suggested that this program holds promise for supporting parents through the transition period, but a more rigorously controlled and extensive evaluation that also assesses child outcomes is necessary.

Aims of the Study

The primary aim of the present study was to assess the effectiveness of the AusParenting in Schools Transition to Primary School Parent Program in strengthening parent knowledge and confidence to manage the transition process and help their child settle into school, and increasing parent involvement in their children's learning and development. It was hypothesized that compared to parents in a control condition, parents who participated in the transition program would report (a) increased knowledge of the transition process and confidence in their ability to help their child adjust to starting school, (b) lower levels of worry and concern about the transition process, (c) increased parent involvement in their children's learning and development, and (d) greater sense of parenting confidence and satisfaction. A second aim of the study was to evaluate the effectiveness of the program in improving children's academic and social adjustment to school. It was hypothesized that compared to children in a control condition, children whose parents participated in the program would experience better academic and social adjustment to school. A final aim of the study was to assess parent satisfaction with the transition program.

METHOD

Setting and Participants

A trial of the AusParenting in Schools Transition to Primary School Parent Program was conducted in 21 primary schools in the northern and western metropolitan regions of Melbourne, Victoria. Eleven Department of Education and 10 Catholic Education Office Melbourne schools responded to an invitation for participation distributed by the relevant education departments. Schools were randomly allocated to either the intervention or control condition using a computer generated allocation sequence. There were no significant differences between schools in the intervention or control condition in relation to size of school, number of children starting primary school, or level of socio-economic disadvantage.

Schools in the intervention condition received the AusParenting in Schools Transition to Primary School Parent Program as outlined below, while schools in the control condition offered families the usual transition activities provided by their schools. This may have included information sessions about the school, its structure and operation, fees, uniforms, assessment and curriculum based issues, but did not include a structured, evidence informed program to provide practical information and support specific to helping children adjust to starting school.
All families of children enrolled to start prep grade at each of the schools in 2007 (Total=1465; Intervention=735; Control=730) were eligible to participate in the study. In Australia, children typically start school at 5 years of age. Prior to starting primary school, many children also attend early education programs such as pre-school, also known as kindergarten, for at least one year. Families in both the intervention and control conditions were informed about the purpose of the study and invited to participate via information sessions held at schools in Term 4, 2006, the year prior to their children starting school. Figure 1 maps participant engagement in the intervention, data collection and analyses using the CONSORT recommendations for participant tracking (Moher, 1998).

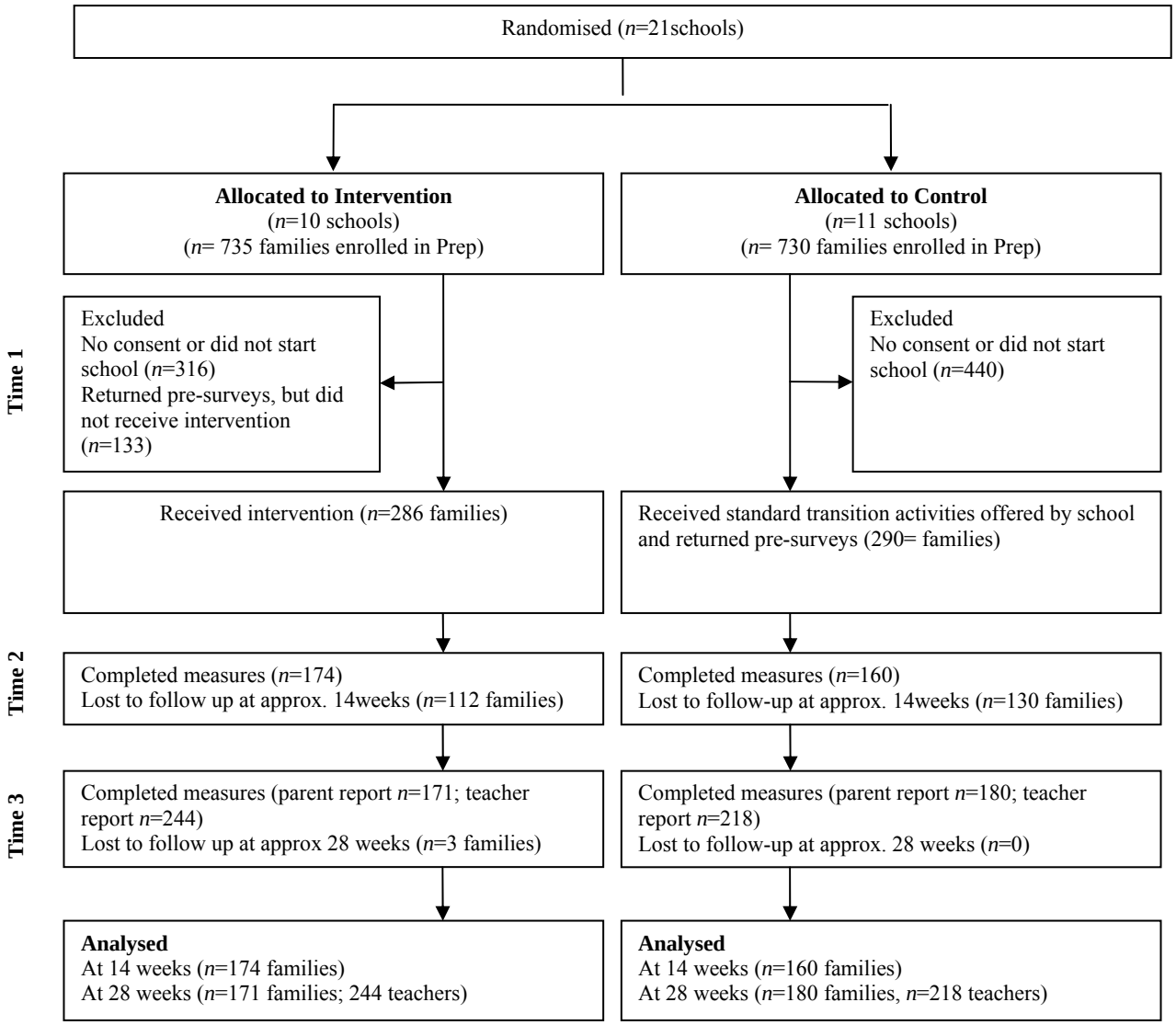

Figure 1. Flow of participants in the intervention and control conditions during recruitment, engagement in the intervention, data collection and analyses stages.

Of the 735 families enrolled in prep grade in the intervention schools, 419 (57%) completed the pre-intervention surveys (Time 1). From these, 286 (68%) families participated in at least one session of the transition program and 133 (32%) chose not to participate at all. There were no significant differences between parents who completed the intervention and those who did not on each of the demographic characteristics and pre-test scores on the outcome measures. Of the 730 families enrolled in prep grade in the control schools, 290 (40%) completed pre-intervention surveys (Time 1). At post-intervention (Time 2) and follow-up (Time 3) families were lost to follow-up in both the intervention and control arms. Reasons include failure to return surveys, withdrawal from the study, or children left the school. Participant tracking and attrition are discussed further in the results section.

Baseline characteristics of the sample are presented in Table 1. The majority of carers who participated in the study were mothers from two-parent families who speak English at home. The majority of children had been to preschool and had a sibling who already attends the school. Independent sample *t*-tests and chi-square (χ^2) analyses conducted on the continuous and

categorical demographic variables revealed that there were no significant differences between the intervention and control conditions.

Table 1: Baseline characteristics of the sample by intervention and control condition

Variables	Intervention (*n*=286) *n* (%)		Control (*n*=290) *n* (%)	
Parent/Family Characteristics				
Primary carer's relationship to child				
Mother	251	(85.0)	243	(83.8)
Father	27	(9.4)	39	(13.4)
Grandparent	3	(1.0)	1	(0.3)
Not reported	5	(1.7)	7	(2.4)
Parent's age (yrs) (*M, SD*)	35.29	(6.08)	36.18	(5.11)
Primary carer's level of education				
Completed Primary School	3	(1.0)	3	(1.0)
Below Year 12	58	(20.3)	69	(23.8)
Year 12	84	(29.4)	77	(26.6)
TAFE/Trade Qualification	56	(19.6)	49	(16.9)
Tertiary Qualification	54	(18.9)	49	(16.9)
Post graduate Qualification	24	(8.4)	33	(11.4)
Not reported	7	(2.4)	10	(3.4)
Family Type				
Two-parent family	243	(85.0)	227	(78.3)
Step family	4	(1.4)	5	(1.7)
Single parent family	26	(9.1)	47	(16.2)
Extended family	6	(2.2)	-	-
Not reported	7	(2.4)	11	(3.8)
Language spoken at home				
English	208	(72.7)	195	(67.2)
Non-English speaking	73	(25.5)	86	(29.7)
Not reported	5	(1.7)	9	(3.1)
No. of children who have siblings attending school (*M, SD*)	150	(52.4)	149	(51.4)
SES, SEIFA, Index for Relative Disadvantage (*M, SD*)	981.14	(52.31)	965.06	(61.94)
Child Characteristics				
Child's age (yrs) (*M, SD*)	4.97	(0.57)	5.01	(0.57)
Child's gender				
Male	127	(44.4)	138	(47.6)
Female	158	(55.2)	150	(52.4)
Not reported	1	(0.3)	-	-
No. children attended preschool	260	(87.4)	244	(84.1)
No. of children with a disability	10	(3.5)	11	(3.8)
No. of children with a chronic health problem	12	(4.2)	21	(7.2)

Transition to Primary School Parent Program Content and Delivery

The AusParenting in Schools Transition to Primary School Parent Program consists of four sessions that address practical and development issues relevant to children and families as children begin primary school. The sessions are approximately 1.5 to 2 hours in duration each, and are designed to be delivered by school personnel who have received the program resource manual and professional training. Staff from schools allocated to the intervention condition participated in a 2-hour professional training session providing (a) a rationale for the provision of parenting information and support during transition, (b) an overview of the program content, and (c) information about preparing for and conducting sessions. Demonstrations in delivering the

sessions and opportunities for practice were provided. Furthermore, staff from the Parenting Research Centre with psychology training and experience in delivering group parenting interventions co-facilitated the sessions with a staff member from each school.

Sessions 1 to 3 were conducted approximately 3 months before the children were due to start school (i.e., in the term before the school year starts), and session 4 was conducted approximately 1 month after the children had started school. Each of the sessions were designed to stimulate discussion among parents. Parents were encouraged to share their experiences of transition and any strategies that they have already found useful in preparing their child for school. Details about each of the sessions are in Table 2.

Table 2: Content overview of the transition program

Session	Content Overview
Session 1: Orientation to school	• Provides schools with an opportunity to embed their standard transition practices in the program. This typically involves offering an information session for parents to provide useful information such as important dates for the school year, uniforms, fees, and structure of the school day
Session 2: Helping your child start school	• The importance of making a smooth transition to school • Common reactions to starting school • Factors that may influence children's adjustment to school • Practical strategies to prepare children for school (i.e., talking positively about school, listening to and talking with children about school, answering questions, and explaining how school works and the changes that will happen) • Strengthening skills their child may need to be independent at school (i.e., asking for help, going to the toilet, eating lunch from their lunchbox) • Establishing important routines that may help with managing family life when children start school such as the morning and bedtime routines • Dealing with common reactions to starting school such as clinginess, tiredness, complaints about going to school, and more significant separation difficulties • Saying goodbye to your child at school
Session3: Building on your child's learning and development	• Overview of children's learning and development at the time of transition • The benefits of family-school partnerships and family involvement in children's learning • Strategies for enhancing children's learning at home (i.e., setting up a positive learning environment, using positive reinforcement, expressing and reinforcing positive attitudes to learning and making mistakes, and sharing family experiences and conversations) • Opportunities to get involved in your child's school (i.e., reading the newsletter, classroom helpers, school excursions, parent associations, and school council)
Session 4: Transition Progress and Raising Children	• Opportunity to share parent and child experiences of starting school • Common challenges in raising children • Schools as places families can go for parenting information and resources • Key people to contact at the school • Parenting information and support in the local community

Measures

Parents/caregivers were asked to complete a brief survey and return it to the school before commencing the intervention program or the routine transition activities provided by the school (Time 1). Surveys took approximately 10 minutes to complete. Parents with insufficient English to complete questionnaires did not participate. Follow-up surveys were collected from parents in the intervention and control conditions in Term 1 of the following year shortly after children had started school (Time 2) and again at the end of Term 2 (Time 3) to assess child adjustment to school. With consent from parents, teachers also completed a brief survey about each child's adjustment to school in Term 2 (see teacher report measures below).

The parent surveys obtained demographic information about the parent/caregiver's relationship to the child, their child's age, gender, and health information, language spoken at home, education level, whether they had received any information about starting primary school, and how happy their child is about going to school. The Australian Bureau of Statistics, Socio-economic Indexes for Areas (Trewin, 2003), based on 2001 population census data, was used to identify families' socioeconomic status (SES) based on their postal area code. The Index of Relative Socioeconomic Disadvantage was used and is based on variables such as low income, low educational attainment, and high unemployment. Higher scores reflect an area of relatively better economic status. For the geographical areas in Victoria, the average 10% and 90% quantile index values are 1020, 950 and 1092, respectively. Parents also completed the following self-report measures:

Parent Self-efficacy in Managing the Transition to School Scale (PSMTSS; Giallo, Kienhuis, Treyvaud, & Matthews, 2008) is a 9-item self-report questionnaire with items rated on a 6-point Likert scale ranging from 1=Strongly disagree to 6=Strongly Agree. There are two subscales: Efficacy and Worry. The Efficacy subscale assesses parent knowledge and confidence in managing the transition process and supporting their child. High scores represent greater efficacy to manage the transition period. The Worry subscale assesses parent concerns about being able to manage the transition period. High scores represent high degrees of worry. Internal consistencies for the Parent Efficacy subscale were .75 and .73 for Intervention and Control conditions, respectively. Internal consistency for the Parent Worry subscale was .72 and .83 for Intervention and Control conditions, respectively.

Parenting Sense of Competence Scale (PSOC; Johnston & Mash, 1989)) is a 16-item self-report measure assessing parents' satisfaction and efficacy in their parenting role. The Satisfaction subscale refers to parenting frustration, anxiety and motivation, while the Efficacy subscale assesses perceived competence, capability and problem-solving ability. Items are rated on a 6-point Likert scale with high scores indicating high degrees of satisfaction and efficacy in parenting. Internal consistencies for the Satisfaction subscale were .82 and .80 for the Intervention and Control conditions, respectively. For the Efficacy subscale, internal consistency was .75 for both the Intervention and Control conditions.

Parents' Involvement in Home-based and School-based Activities (Walker, Wilkins, Dallaire, Sandler, & Hoover-Dempsey, 2005) is a 10 item self-report of parent involvement in children's home-based learning (i.e., Someone in my family talks with my child about the school day) and school-based activities (i.e., Someone in my family helps at my child's school). Parents rate the degree to which they are involved in each of the listed activities on a 6-point scale ranging from 1=Never to 6=Daily. Higher scores on the Home-based and School-based Activities subscales indicate greater involvement. Internal consistency coefficients for the Home-based subscale for the Intervention and Control conditions was .87 and .88, respectively, while for the School-based subscale was .88 for both the conditions.

Children's Adjustment to School Scale – Parent and Teacher Report (Parenting Research Centre, 2005) is a 2-item parent and teacher report measure assessing children's academic and social adjustment to school. The items were rated on a 5-point Likert scale, ranging from 1=Not coping at all to 5=Coping extremely well. Higher scores reflect better adjustment to school. *School Readiness Scale – Parent and Teacher Report* (Gumpel, 2003) measures children's behaviours associated with readiness for school. The 6 items (e.g., Is able to work independently without help from an adult) are rated on a 3-point scale ranging from 0= Never behaves this way to 3=Always behaves this way. Internal consistencies for parent report were .68 and .76 for the Intervention and Control conditions, respectively, while for teachers were .90 and .92.

Social, emotional, behavioural functioning items from the School Entrant Health Questionnaire (SEHQ; Department of Human Services, 2006). The SEHQ was developed to assist parents of children (aged 5 to 7 years) to identify concerns regarding their child's health and wellbeing. This survey is distributed each year to parents and guardians of preparatory grade children in most Victorian primary schools. Seven items from the SEHQ were used to assess children's social, emotional and behavioural functioning in the current study. Parents were asked to rate items pertaining to their children's attention and ability to complete activities, temper tantrums, aggressive behaviour, play with other children, school resistance, overall happiness and

sleeping on a 3-point scale ranging from 1=Rarely/Never to 3=Usually/Often. A total scale score was calculated. Internal consistencies for this scale were .51 and .50 for the Intervention and Control conditions, respectively. Teachers were also asked to complete these items for children whose parents gave consent. Internal consistencies for teacher report were .57 and .68 for the Intervention and Control conditions.

Parent satisfaction with the program survey. This survey was developed for the purposes of this study. During each session parents were asked to rate the quality and content of the session (1=Poor to 7=Excellent), whether there were adequate opportunities for participation and whether they felt they now had the skills to implement the transition strategies (1=Definitely not to 7=Definitely), and overall satisfaction with the program (1=Very Dissatisfied to Very Satisfied). A mean score for the five items was computed based on parent ratings from each of the 3 sessions.

RESULTS

Data Screening and Data Analyses Strategy

The percentage of missing data was approximately 5% across variables for both the intervention and control conditions, and these were replaced with an expectation-maximization algorithm using the missing values option in SPSS 16.0 (Schafer & Graham, 2002). Where more than 10% of data was missing for a single case on an outcome variable, the case was excluded from the analysis for that outcome variable. Therefore, it is important to note the sample sizes for the analyses vary depending upon the extent of missing values for each outcome variable.

The K.S Lilliefors' tests of normality indicated that distributions on some dependent measures had some skewness ($p<.001$). Graphical normality plots also showed minor skewness for some dependent measures, however given the sample size, no data transformation procures were conducted. Finally, Levene tests revealed that the assumption of homogeneity of variances between the intervention and control conditions was met for each of the dependent measures.

Single-factor, between-subjects multivariate analyses of covariance (MANCOVA) were conducted to compare the intervention and control conditions on each of the dependent measures at post-intervention, using the pretest scores as a covariate. Effect sizes have been reported where appropriate, with 0.01, 0.06 and 0.14 as small, medium and large effect sizes for multivariate η^2, while 0.2, 0.5 and 0.8 are small, medium, and large effect sizes for Cohen's *d*. Analyses were conducted to determine whether SES should be controlled for as a covariate in the main analyses. A significant correlation between the SEIFA and the post-test PSMTSS Worry subscale scores was found, $r(N=340)=-.11$, $p=.041$. However, given the small correlation and the associated non-significant F-ratio test, $F(1, 324)=0.61$, $p=.463$, the SEIFA scores were not included in the main analyses as a covariate. Finally, there were no significant relationships between the SEIFA scores and child outcome measures.

Given that having an older child at school may influence parents' self-efficacy to manage the transition to school and extent to which parents are involved in children's learning at home and school, analyses were conducted to determine whether it should be controlled for in the main analyses as a covariate. Having older children at school was significantly correlated with post- test PSMTSS Efficacy scores, $r(N=662)=.24$, $p<.001$, and post-test PSMTSS Worry scores, $r(N=667)=-.09$, $p=.015$. It was also correlated with parent involvement in child's learning at home, $r(N=330)=.139$, $p=.012$. Although significant, it is important to note that these correlations are small, and the associated F-ratio tests revealed that having older children at school is not significantly related to the post-test PSMTSS Efficacy and Worry subscale scores, $F(1, 374)=0.93$, $p=.334$ and $F(1,374)=.09$, $p=.771$, or parent involvement at home, $F(1, 314)= 1.02$, $p=.313$. Given these findings, having an older child at school was not included in the main analyses as a covariate.

Intervention Effects: Parent Outcomes

Descriptive statistics for the intervention and control conditions on each of the parent outcome variables at pre- and post-intervention are presented in Table 3.

Parental self-efficacy to manage the transition to school. A significant multivariate effect for the PSMTSS was found, indicating that at post-test parents in the intervention condition reported

greater overall sense of self-efficacy to manage the transition period than parents in the control condition, Wilks' $\Lambda = .97$, $F(2, 386)=5.09$, $p=.007$, multivariate $\eta^2=.026$. Follow-up univariate results revealed that at post-test the intervention condition had significantly higher Efficacy subscale scores than the control condition, $F(1, 387)=9.97$, $p=.002$, $d=0.20$, 95% CI (-0.02, 0.42). With respect to the Worry subscale, there were no significant differences between the intervention and control conditions.

Self-efficacy in the overall parenting role. Results revealed a non-significant multivariate effect for the PSOC indicating that at post-test there was no difference in post-test Efficacy or Satisfaction subscale scores for parents in the intervention and control conditions.

Parent involvement in their child's learning at home and school. A significant multivariate effect for parental involvement in children's learning was found, indicating that at post-test parents in the intervention condition were more involved overall in their child's learning at both home and school, Wilks' $\Lambda = .98$, $F(2, 324)=3.17$, $p=.043$, multivariate $\eta^2=.019$. Follow-up univariate results revealed that at post-test parents in the intervention condition reported greater involvement in their child's learning at school than the control condition, $F(1,325)=5.96$, $p=.015$, $d=0.27$, 95% CI (0.05, 0.49).

Table 3: Comparisons of parent outcomes over time by intervention and control condition

		Intervention			Control		
Parent Outcome	*n*	Time 1 *M* (*SD*)	Time 2 *M* (*SD*)	*n*	Time 1 *M* (*SD*)	Time 2 *M* (*SD*)	*F*
PSMTSS – Efficacy	174	24.66 (3.25)	25.60 (2.96)	156	25.32 (2.99)	24.97 (3.37)	9.97**
PSMTSS - Worry	174	11.02 (4.15)	10.20 (4.11)	156	10.20 (4.05)	10.26 (3.94)	2.05
PSOC - Efficacy	171	31.95 (4.67)	32.70 (4.55)	160	32.27 (5.08)	32.28 (5.35)	2.83
PSOC –Satisfaction	171	39.02 (7.21)	39.70 (6.72)	160	39.56 (7.72)	40.35 (7.88)	3.15
Parent involvement at home	167	-	23.21 (7.39)	160	-	22.83 (7.61)	0.21
Parent involvement at school	167	-	12.33 (6.61)	160	-	10.61 (6.04)	5.96*

*p<.05 **p<.01 Note: Sample size differences due to missing data

Intervention Effects: Child Outcomes

Parent and teacher report on child adjustment to school, school readiness and overall social, emotional and behavioural functioning was obtained. Final numbers for these analyses vary due to differing return rates for parents and teachers, and missing data. Descriptive statistics for the intervention and control conditions on each of the child outcome variables at pre- and post-intervention are presented in Table 4.

There were no significant differences between the intervention and control conditions on parent and teacher ratings of children's happiness to go to school, academic adjustment, social adjustment and school readiness. It is important to note that differences between conditions for parent and teacher report of school readiness were approaching significance, $F(1, 336) = 3.29$, $p = .07$ and $F(1, 457) = 2.96$, $p=.09$, respectively.

Table 4: Comparisons of child outcomes at Time 3 by intervention and control condition

Dependent Measure	*n*	Intervention *M* (*SD*)	*n*	Control *M* (*SD*)	*F*
Child is happy to go to school					
Parent	171	3.50 (0.81)	172	3.42 (0.92)	0.85
Teacher	244	3.56 (0.55)	218	3.55 (0.68)	0.08
School Adjustment – Academic					
Parent	171	4.32 (0.82)	180	4.30 (0.90)	0.03
Teacher	244	3.96 (1.00)	218	3.96 (1.03)	0.002
School Adjustment – Social					
Parent	170	4.28 (0.84)	180	4.38 (0.82)	1.15
Teacher	244	4.11 (0.88)	218	4.08 (0.88)	0.15
School Readiness					
Parent	158	18.42 (3.93)	180	17.57 (4.56)	3.29
Teacher	242	13.47 (3.98)	217	12.81 (4.19)	2.96

Note: Sample size differences due to missing data

Attrition and Intention-to-treat Analysis

Of the 286 participants in the intervention condition who had returned the Time 1 surveys, 112 participants (39% of N=286) failed to complete Time 2 surveys. From the 290 participants in the control condition who had returned Time 1 surveys, 130 (44% of N=290) failed to completed Time 2 surveys. Analyses revealed that there were no significant differences between the completers and non-completers on Time 1 scores on any of the outcome measures or demographic characteristics.

Intention-to-treat analysis (ITT) was then conducted using the last observation carried forward method and replacing missing values at Time 2 for parent outcomes on the PSMTSS and PSOC only. It was not possible to conduct ITT analyses on the other parent and child outcome measures as data for these were only collected at Time 2. The ITT results continued to show the same pattern of significance reported for the completer analysis, with significant multivariate results for the PSTMSS, Wilks' Λ = .98, $F(2, 573)=6.30$, p=.002, multivariate η^2=.022, and univariate results for the PSTMSS Efficacy subscale, $F(1, 574)=11.84$, p=.001, d=.021. This analyses shows that the intervention effects lost on the measures of parental self-efficacy to manage the transition period was small. Finally, consistent with the completer analysis, the ITT results revealed no significant results for the PSOC.

Parent Satisfaction with the Transition Program

Of all the parents who received the transition program (including those who did and did not return pre-intervention surveys), 590 parents consented to completing satisfaction surveys for each session. Mean scores for each of the items based on parent ratings of the 3 sessions were computed and are presented in Table 5. On a 7-point scale, results reveal that parents rated the quality and content of the session as excellent, and indicated that there were definitely adequate opportunities for participation. Parents indicated that they generally felt they had the skills to implement the transition strategies discussed in the program. Finally, parents indicated that they were very satisfied with the overall program.

Table 5: Parent satisfaction with the Transition Program (*n*=590)

Items	*M (SD)*
Quality of the sessions	6.09 (0.90)
Content of the sessions	6.11 (2.76)
Adequate opportunities for participation	6.20 (1.00)
Perceived skills to implement the transition strategies	5.94 (1.04)
Overall satisfaction with the program	6.10 (1.00)

DISCUSSION

The results demonstrated that participation in the transition to school parent program had a positive effect on parental self-efficacy to help their children make the transition to school, and was associated with greater parent involvement at school during the children's first term at school. Parents also reported high satisfaction with all aspects of the program, indicating that they found the program content acceptable and useful. Despite these positive findings, participation in the program was not associated with changes in parents' overall sense of competence and satisfaction in their parenting role, or children's readiness for or adjustment to school as reported by both parents and teachers. These findings will now be discussed in detail.

Parents who had participated in the transition program reported greater efficacy to manage the transition period than parents in the control condition. This is an important finding as an aim of the program was to enhance parents' knowledge and confidence in their ability to manage the transition to school. The program offered information and practical strategies about how to prepare their child for school, managing family life during this time of change, support their child with common difficulties that can arise at this time, and get further information and support if required. This study demonstrates that when parents are provided with such information it can enhance their perceptions of their competence to cope during the transition period and help their child adjust. This is important as research shows that parents who are efficacious in their parenting role are more likely to engage in positive parenting behaviours (Coleman & Karraker, 1997; Donovan et al., 1997; Wells-Parker et al., 1990).

Based on these results, it could be suggested that parents who reported greater self-efficacy to manage transition following participation in the program may have employed positive parenting strategies to cope with the challenges brought about by this time. For example, these parents may have been more likely to express confidence in their child's ability to cope with transition, engage in preparation for school activities, model and reinforce a positive attitude toward school, maintain consistent morning and bedtime routines, and cope with common adjustment issues children may experience during the transition period. A limitation of the study was that data on parental behaviour or specific strategies used during transition were not collected. Therefore, it was not possible to determine how improvements in parental self-efficacy to manage transition may be associated with changes in parental behaviour. It is recommended that future evaluation studies assess changes in parenting behaviour alongside changes in parental self-efficacy to manage transition.

Whilst participation in the program was associated with an increase in parental self-efficacy to manage transition (task-specific parental self-efficacy), it was not associated with changes in parents' overall sense of competence in their parenting role (domain level parental self-efficacy). Given previous research reporting a moderate correlation between parent self-efficacy to manage transition and overall parenting self-efficacy (Giallo et al., 2008), it may be expected that an increase in parental self-efficacy to manage transition would be associated with an increase in overall sense of parenting competence. There are a number of possible explanations for the lack of

change in general parenting self-efficacy. For example, task specific self-efficacy beliefs may be more sensitive to short-term changes as a result of participation in a program than domain level parental self-efficacy. Alternatively, domain level parental self-efficacy may be more influenced by a series of diverse parenting experiences over time rather than experiences/programs limited to a specific set of parenting tasks or areas. However, the most likely explanation is that the overall level of satisfaction and perceived efficacy in the parenting role was high to begin with, therefore a significant degree of change would not be expected. Normative data on the PSOC show that the mean score for Efficacy for parents of children in the transition to school age range is 25.08 (*SD*=5.98) for parents of girls, and 25.52 (*SD*= 5.29) for parents of boys (Johnston & Mash, 1989). In the current study, the mean Efficacy score was 31.95 which is one standard deviation above the published norms for this measure. Furthermore, the mean Satisfaction score of 39.02 for the current sample was consistent with published norms for parents of girls (*M*=38.50; *SD*=6.34), and boys (*M*=7.69; *SD*=6.13) for parents of boys (Johnston & Mash, 1989).

Results of the study also revealed that participation in the transition program was associated with greater parent involvement during the children's first term at school. Specifically, parents in the intervention condition reported significantly greater parent involvement at the school than parents in the control condition. This involvement at school may have included activities such as helping at the school, going on school excursions, attending parent-teacher meetings or attending events at the school. This finding is evidence that another aim of the program was achieved, that is, to promote and encourage parents to get involved in their child's learning both at home and school. Specific aspects of the program were designed to achieve such an outcome, such as offering information about the benefits of parent involvement for children, themselves as parents, teachers and the overall school community. Furthermore, co-facilitators from the schools provided specific information about the different ways parents can get involved at their children's school such as attending school assemblies, reading the school newsletter, or helping out in the classroom. These findings show that when parents are given such information it can increase their level of involvement at the school.

Increasing parent involvement during the transition to school is an important finding in the current study. Although not specific to school transition period, there is a large body of research on the relationship between parent involvement and children's academic achievement (Barnard, 2004; Fan & Chen, 2001; Izzo, Weissberg, Kasprow, & Fendrich, 1999; Zellman & Waterman, 1998), positive perceptions of the classroom and school community (Haynes, Comer, & Hamilton-Lee, 1989), social and emotional adjustment (Izzo et al., 1999), and adjustment to school (Simons-Morton & Crump, 2003). The current study provides some evidence that a transition program focused on parents can increase their participation in the school community during the transition period. However, it should be noted that in this study parent involvement was only assessed in the first term of the child's school year, thus it is recommended that future studies assess parent involvement at various time points over the child's school career. This would provide the information needed to determine whether participation in the transition program is associated with sustained parent involvement over time.

Given previous research in the area and the findings presented here that participation in the program was associated with greater parent involvement in child's school and increased parental self-efficacy to manage the transition to school, one may have expected that there would be significantly better adjustment outcomes for children in the intervention condition compared to children in the control condition. However, results revealed that there were no significant differences between the conditions on adjustment to school as reported by both parents and teachers, although results approached significance for school readiness. That is, children in the intervention condition were reported to display more behaviours associated with readiness for school than children in the control condition. The lack of significant findings related to child outcomes may be related to the child-focused transition practices carried out by schools themselves. For instance, schools in the control condition may offer orientation or school visits before school commences allowing children to familiarize themselves with the school environment, their classroom teacher, peers and some classroom activities (Margetts, 2002) (La Paro et al., 2003). The current study did not account for the contribution that existing school transition practices made to children's adjustment, but this would be important for future research

to identify in the particular contribution of a parent focused transition program to child transition outcomes.

Strengths and Limitations of the Study

There are several strengths of the research worth noting. First, randomised controlled methodology was employed to evaluate the outcomes for parents who participated in the transition program compared to parents who did not. It is important to note that schools were randomised rather than the participants, so it is possible that some level of systematic bias was introduced at the school level. Nevertheless, analyses revealed that there were no differences between intervention and control schools on characteristics such as size of school, number of children starting primary school, or level of socio-economic disadvantage.

Second, the CONSORT framework for clinical trials (Moher, 1998) was used to track participation and attrition in the study. The CONSORT process also allows the identification of the weaknesses of the study, showing that there was a poor survey return rate during the course of the study. At each data collection point (Times 1, 2 and 3) the response rate was approximately 50% across both the intervention and control conditions. Although the intention-to-treat analysis helped to address the issue of missing data and had replicated the pattern of significant results with small effect sizes, this highlights the challenge of conducting research and data collection within a school context. In the current study, schools were not required to follow-up parents who had not returned surveys. This decision was made to reduce the workload and burden this would place on schools. However, without support from the school to obtain initial consent from parents to participate in the study, there were limited opportunities to involve parents in the evaluation prior to delivery of the transition program. This highlights the need to help schools understand the importance of program evaluation, and the need for schools to work with program evaluators to achieve best outcomes in terms of data collection.

Third, the study reports on data from parents who attended at least one of the three transition sessions. The number of sessions parents attended was not accounted for in this study, and may be an important issue to consider in future evaluation research. It is possible that program dosage - the number of sessions attended by parents is important in facilitating improvements in parent and child outcomes. It is also possible that attendance at particular transition sessions may results in different outcomes. Future work in this area may lead to further enhancement of the Transition Program structure and content.

A final limitation of the study is that no program integrity measures were taken. Although facilitators were trained in use of the program, it is possible that there may have been minor variations in the delivery of the program to fit the context of the school in which it was being run. For example, there may have been slight differences in the time allocated to the program sessions, or different emphasis placed on specific program content. Measures of adherence to the program may provide important information about the extent to which the program content is covered and assist with interpretation of findings.

Conclusions and Implications for Future Research and Practice

Important benefits for parental self-efficacy to manage the transition to primary school and parental involvement at school were observed for parents who participated in a parent-focused transition program compared to parents who did not participate in such a program during the transition period. In addition, parents reported a high level of satisfaction with the program, suggesting that a parent-focused transition program is highly acceptable to parents. These findings reinforce the importance of supporting parents as their children start school. Further research to determine whether parental involvement is sustained over time, and whether parents' self-efficacy beliefs about managing the transition to school generalize to other school transitions important for children such as from grade to grade, and from primary to secondary school. It would also be worth following parents to see if the improvements in specific transition related self-efficacy reported here and the nature of these transition experiences, are associated with positive changes in the more general domain of parenting self-efficacy over time.

The current study also provides some evidence to support Kraft-Sayre and Pianta's (200) Ecological and Dynamic Model of Transition, which proposes that a broad range of child, parent,

family, teacher, school and community level factors influence children's adjustment to starting school. Whilst the current study focused on parental self-efficacy and parent involvement, future research is needed to identify other parent factors such as previous experiences at school, parenting style, and parent wellbeing that may influence children's adjustment to school. Research in this area will inform further development of parent-focused transition to school programs. Finally, an important area for further research and theoretical development to understand factors at all levels in the model may work together to influence child adjustment to starting school. This may provide important information about the most effective targets for helping children make a successful start to school.

In conclusion, the current study underscores the importance of considering parent experiences during the transition to primary school, and suggest that by providing relevant information and support for parents, schools may be able to see real improvements in parent involvement. The extent to which these improvements translate into benefits for children's outcomes is an important area for future research.

REFERENCES

Barnard, W. M. (2004). Parent involvement in elementary school and educational attainment. *Children and Youth Services Review, 26*, 39-62.

Belsky, J., & MacKinnon, C. (1994). Transition to school: Developmental trajectories and school experiences. *Early Education and Development, 5*(2), 106-119.

Coleman, K., & Karraker, K. (1997). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review, 18*, 47-85.

Department of Human Services. (2006). *Primary School Nursing Program: School Entrant Health Questionnaire Guidelines 2006/07*. Melbourne: Office for Children, Victorian Government Department of Human Services.

Dockett, S., & Perry, B. (1999). *Starting School: Perspectives from Australia.* Paper presented at the Anual Meeting of the Americal Educational Research Association, Montreal.

Donovan, L., Leavitt, L., & Walsh, R. (1997). Cognitive set and coping strategy affect mothers' sensitivity to infant cries: A signal detection approach. *Child Development, 68*, 760-772.

Ensminger, M., & Slusarcick, A. (1992). Paths to high school graduation or dropout: A longitudinal study of a first-grade cohort. *Sociology of Education, 65*(2), 95-113.

Entwisle, D., & Alexander, K. (1998). Facilitating the transition to first grade: The nature of transition and research on factors affecting it. *The Elementary School Journal., 98*(4), 351-364.

Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review, 13*, 1-22.

Giallo, R., Baschuk, M., & Matthews, J. (2007). *AusParenting in Schools: Pilot Evaluation of the Transition to Primary School Parent Program*. Melbourne: Parenting Research Centre.

Giallo, R., Kienhuis, M., Treyvaud, K., & Matthews, J. (2008). A psychometric evaluation of the Parent Self-efficacy in Managing the Transition to School Scale. *Australian Journal of Educational and Developmental Psychology, 8*, 36-48.

Griffin, P., Nadebaum, C., & Edgecombe, G. (2006). *School Entrant Health Questionnaire Longitudinal Analysis of 1998 to 2004: Report to Department of Human Services*. Melbourne: Assessment Research Centre.

Gumpel, T. (2003). The use of item response theory to develop a measure of first-grade readiness. In M. Westheimer (Ed.), *Parents making a difference: International research on the Home Instruction for Parents of Preschool Youngsters (HIPPY) Program*. Jerusalem: The Hebrew University Magnes Press.

Gutman, L., Sameroff, A., & Cole, R. (2003). Academic growth curve trajectories from 1st to 12th grade: Effects of multiple social risk factors and preschool child factors. *Developmental Psychology, 39*(4), 777-790.

Hausken, E., & Rathbun, A. (2002, 4 April 2002). *Adjustment to kindergarten: Child, family and kindergarten program factors.* Paper presented at the Annual Meeting of the Americal Educational Research Association, New Orleans.

Haynes, N. M., Comer, J. P., & Hamilton-Lee, M. (1989). School climate enhancement through parental involvement. *Journal of School Psychology, 27*, 87-90.

Izzo, C., Weissberg, R., Kasprow, W., & Fendrich, M. (1999). A longitudinal assessment of teacher perceptions of parent involvement in children's education and school performance. *American Journal of Community Psychology, 27*(6), 817-839.

Johnston, C., & Mash, E. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology, 18*, 167-175.

Kraft-Sayre, M., & Pianta, R. (Eds.). (2000). *Enhancing the transition to kindergarten: Linking children, families and schools*. Charlottesville, VA: University of Virginia, National Center for Early Development and Learning.

La Paro, K., Kraft-Sayre, M., & Pianta, R. (2003). Preschool to kindergarten transition activities: Involvement and satisfaction of families and teachers. *Journal of Research in Childhood Education, 17*, 147-158.

Ladd, G. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment. *Child Development, 61*(4), 1081-1100.

Ladd, G., & Price, J. (1987). Predicting children's social and school adjustment following the transition from preschool to kindergarten. *Child Development, 58*(5), 1168-1189.

Landesman Ramey, S., Gaines Lanzi, R., Phillips, M., & Ramey, C. (1998). Perspectives of former Head Start children and their parents on school and the transition to school. *The Elementary School Journal, 98*, 311-327.

Love, J., Logue, M., Trudeau, J., & Thayer, K. (1992). *Transitions to kindergarten in American schools. Final report of the national transition study.* New Hampshire, U.S.A.: RMC Research Corp.

Margetts, K. (1997). Factors impacting on children's adjustment to the first year of primary school. *Early Childhood Folio. Set: Research for Teachers., 3,* 1-4.

Margetts, K. (2000, June). *Planning for transition can make a difference.* Paper presented at the Early Years of Schooling P-4 Conference, Melbourne.

Margetts, K. (2002). Transition to school - complexity and diversity. *European Early Childhood Education Research Journal, 10*, 103-114.

McIntyre, L., Eckert, T., Fiese, B., DiGennaro, & Wildenger, L. (2007). Transition to kindergarten: Family experiences and involvement. *Early Childhood Education Journal, 35*, 83-88.

Moher, D. (1998). CONSORT: An evolving tool to help improve the quality of reports of randomised controlled trials. *Journal of American Medical Association*(279), 1489-1491.

Ollendick, T. H., & Mayer, J. A. (1984). School Phobia. In S. M. Turner (Ed.), *Behavioral Theories and Treatment Anxiety* (pp. 367-406). New York: Plenum Press.

Parenting Research Centre. (2005). *Children's Adjustment to School Scale - Parent Report*: Unpublished measure.

Pianta, R., Cox, M., Taylor, L., & Early, D. (1999). Kindergarten teachers' practices related to the transition to school: Results of a national survey. *The Elementary School Journal, 100*(1), 71-86.

Rice, M., & O'Brien, M. (1990). Transitions: TImes of change and accomodation. *Topics in Early Childhood Special Education, 9*(4), 1-14.

Rimm-Kaufman, S., Pianta, R., & Cox, M. (2000). Teachers' judgments of problems in the transition to kindergarten. *Early Childhood Research Quarterly., 15*(2), 147-166.

Schafer, J., & Graham, J. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7*, 147-177.

Schulting, A., Malon, P., & Dodge, K. (2005). The effect of school-based kindergarten transition policies and practices on child academic outcomes. *Developmental Psychology, 41*(6), 860-871.

Simons-Morton, B., & Crump, A. (2003). Association of parent involement and social competence with school adjustment and engagement among sixth graders. *Journal of School Health, 73*(3), 121-126.

Trewin, D. (2003). *Australian Bureau of Statistics Information Paper: Socio-economic Indexes for Areas*. Canberra: Commonwealth Government of Australia.

Walker, J., Wilkins, A., Dallaire, J., Sandler, H., & Hoover-Dempsey, K. (2005). Parental involvement: Model revision through scale development. *The Elementary School Journal, 106*, 85-106.

Wells-Parker, E., Miller, D., & Topping, J. (1990). Development of control-of-outcome scales and self-efficacy scales for women in four life roles. *Journal of Personality Assessment, 54*(3-4), 564-575.

Zellman, G. L., & Waterman, J. M. (1998). Understanding the impact of parent school involvement on children's educational outcomes. *The Journal of Educational Research, 91*, 370-381.

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