

**Child care arrangements, personal, family and school influences on
children's adjustment to the first year of schooling**

Executive Summary

Dr Kay Margetts

Department of Learning and Educational Development

The University of Melbourne

Ph: 03 8344 0988

Email: k.margetts@unimelb.edu.au

Starting school has been identified as a major challenge facing children in their early years. Children's development and adjustment as they commence schooling is critical for their future development. Research has suggested that social and emotional difficulties in the early years of schooling can predict risk of educational and social problems in the following ten to twelve years. Children's development and adjustment in the early years is influenced by a variety of personal and family characteristics, societal and family trends and contextual and life experience. With increasing numbers of children receiving non-maternal and non-parental child care, concern has been raised about the impact of this care on children's development and progress in school. Child care arrangements are complex and children experience a range of types and patterns of care prior to schooling. There has been little research addressing the separate influence of the timing and extent of discrete types of parental and non-parental care on children's development, and particularly their adjustment to the first year of schooling. Research to date has reported the influence of the primary type of care experienced by children and has generally reported results in relation to categories rather than discrete types of care.

This significant study provides valuable insight into factors influencing children's adjustment to the first year of schooling and extends previous research on adjustment outcomes and children's development.

Overview

The study identifies the predictive value of the timing and extent of attendance at different types of child care, children's personal characteristics, and family, and

school factors on children's early school adjustment. While it is not possible to infer causal relationships from this study, the results do provide insights into possible benefits or risks related to the timing and extent of attendance at different types of child care and the contributions of a range of other variables. In addition the study describes and highlights the complexity of parental and non-parental child care arrangements for children prior to the commencement of schooling, including the high number of children receiving non-parental child care and combinations of this care, different trends related to the care of boys and girls, and possible relationships between socio-economic status in the first year of school and child care attendance.

Aims

This study was designed to explore and add to the knowledge about the complexity of relationships between children's personal characteristics, family demographics, school factors, child care histories and adjustment to the first year of schooling. It was hypothesised that children's adjustment to the first year of schooling is influenced by child care experiences, and the influence of these experiences may be moderated by children's personal characteristics, family demographics and school factors; and predicted by measures of adjustment in preschool.

Subjects and instrumentation

Participants were 212 children from twelve preparatory classrooms across four Melbourne metropolitan government primary schools. Children were aged between 52 months and 80 months of age ($M = 66.87$, $sd 4.23$). Of these children, 122 were male (57.5%) and 90 were female (42.5%), ($M = 0.42$, $sd 0.50$).

Measures of adjustment: School teachers completed the Social Skills Rating System (SSRS) (Gresham & Elliott) Teacher Form (Elementary Level) during the ninth week of schooling for each child participating in the study. The SSRS Teacher Form consists of 57 items in three domains. The social skills domain (Items 1-30) includes the subscales of cooperation, confidence (confidence) and self-control. The problem behaviour domain includes the subscales of externalising behaviour, internalising behaviour and hyperactivity (Items 31-48). Academic competence is one small domain (Items 49-57). (description of measures are attached)

Background information: A parent questionnaire was constructed to obtain background information about children's personal characteristics, child care histories, family demographic, and school information.

Data analyses

Analyses of variance and hierarchical multiple regression analyses were employed to determine which variables best accounted for most of the variance in the dependent or outcome variables and to determine the significance or otherwise of these contributions. Variables were identified for early entry into regression analyses if they were related to children's personal characteristics, followed by family demographics and finally the more recent school experiences.

Important features of the study

This significant study:

- identifies and describes the different types, and complexity of, parental and non-parental care arrangements for children prior to, and in the first year of schooling;
- provides valuable insight into factors influencing children's adjustment to the first year of schooling;
- extends previous research on adjustment outcomes and children's development;
- uses an ecological framework to identify and examine possible predictors of measures of adjustment;
- provides a comprehensive understanding of the influences of different types of parental and non-parental child care, including the timing and extent of attendance on children's social, behavioural and academic measures of adjustment;

- involves the identification and inclusion of parameters of child care arrangements more representative of the general population and the variety and complexity of children's experiences. This study is not limited by a sample selection based on only one type of care exclusive of other types of care or children's primary type of care, but provides data related to each child's regular attendance at different types of child care in each of the 5 years prior to schooling including:
 - centre-based child care
 - 3-year-old preschool
 - 4-year-old preschool
 - family day care
 - occasional care
 - nanny care
 - grandparent care
 - care by neighbours, friends or others
 - father care
 - mother care;
- uses comprehensive measures of adjustment including sub-scale constructs of social skills, problem behaviour and academic competence providing both positive and negative measures;
- provides a more differentiated and representative analysis of the influences of parental and non-parental child care on children's early school adjustment than other studies to date.

Additionally,

- the indexes of child care that significantly predicted measures of adjustment to schooling accounted for between 1.3% and 6.0% of the variance in outcomes. These are significant because they reflect, and are generally greater than those of similar studies of children's developmental outcomes in the first year of schooling.

Results

The study found variations in measures of children's adjustment to school associated with their child care histories, and highlighted that more out-of-home child care in the early years had a greater impact on children's adjustment than less extensive out-of-home child care arrangements.

The study shows that children's personal characteristics, family and school factors in the first year of schooling are important in explaining the influences on

different social, behavioural and academic aspects of adjustment in the first year of schooling.

As well as the importance of the type, timing and extent of different care on children's lives, this study has shown that particular sub-groups of the population are at increased risk of detrimental outcomes. Thus children at particular ages, with particular child care experiences, from particular socio-cultural groups, and with particular school experiences will have different experiences within their microsystems.

The descriptive data illustrates and identifies five main trends:

- i. non-parental child care increases with age;
- ii. the number of care arrangements is complex, and the complexity increases with age;
- iii. there are differences in the care arrangements for boys and girls;
- iv. the use of outside-school-hours care early in the first year of schooling is common and varied and these data add to the picture of challenges facing children as they make the transition to primary school and highlight that many children have to make multiple adjustments including long hours outside the family home;
- v. patterns emerged between socio-economic status as determined by receipt of government family benefits and parent employment levels in the first year of schooling, and children's attendance at child care prior to schooling. For example, children whose families had lower socio-economic status in the first year of schooling were more likely to have attended family day care or received grandparent care, while children from families of higher socio-economic status were more likely to have received nanny care. Children from families with fathers in full-time employment in the first year of schooling were more likely to have attended 3-year-old preschool. Children whose fathers were not employed were more likely to have had regular father care, care by grandparents or neighbours, friends or others, and less likely to have attended 4-year-old preschool. Children with mothers in full-time employment were more likely to have attended centre-based child care and less likely to have attended 3-year-old and 4-year-old preschool.

Parental and non-parental child care influences on adjustment

Type of care: Generally, type of care regardless of timing or extent, was neither advantageous nor detrimental for children's development. However, after allowing for the influence of control variables, attendance at 3-year-old preschool and attendance at 4-year-old preschool provided significant benefits in terms of children's social skills and academic competence.

By contrast, family day care predicted lower levels of cooperation, and care by neighbours, friends or others predicted higher levels of internalising behaviour.

Timing of care: The timing of care in relation to years prior to schooling that children either attended or did not attend different types of care, predicted advantages and risks for children's adjustment for some types of care. For example, different types of out-of-home care, 5 years, 4 years and 3 years prior to schooling predicted developmental risks in relation to social skills, problem behaviours and academic competence, and care by neighbours, friends or others in the year immediately prior to schooling predicted similar risks.

Extent of attendance at different types of child care in different years: Results suggest that more extensive non-parental care per week in the years closest to birth increases the risk of children having difficulty adjusting to the first year of schooling in all domains; social, behavioural and academic.

There were some benefits to children of more extensive regular father care or mother care in all but the year immediately prior to schooling. Additionally, more days of mother care in the year immediately prior to schooling, especially 5 to 7 days per week, predicted risk of higher levels of internalising behaviour.

After allowing for the influence of control variables (personal characteristics, family and school factors) results indicated the following:

centre-based child care

- attendance at centre-based child care in the year, 5 years prior to schooling, predicted lower levels of self-control and higher levels of externalising behaviour in the first year of schooling;

- more days (4 or 5) per week or more than 30 hours per week of centre-based child care in 5 years, 4 years or 2 years prior to schooling, predicted lower measures of social skills and academic competence, and more problem behaviours

The results were particularly strong in relation to the extent of care in the 2 years closer to birth and developmental outcomes.

preschool

- children who attended 3-year-old preschool regardless of the year prior to schooling or extent of attendance per week, had higher levels of cooperation;
- attendance at 3-year-old preschool 3 years prior to schooling predicted lower levels of externalising behaviour;
- more days of 3-year-old preschool 2 years prior to schooling predicted higher levels of cooperation and summed social skills.
- children who attended 4-year-old preschool regardless of the year prior to schooling or extent of attendance per week, had higher levels of academic competence;
- attendance at 4-year-old preschool in the year immediately prior to schooling predicted higher levels of cooperation, self-control and academic competence and more hours per week predicted lower levels of problem behaviour;
- attendance at either 3-year-old or 4-year old preschool, 2 years prior to schooling, predicted higher levels of cooperation, self-control and summed social skills in the first year of schooling;

family day care

- family day care, and particularly family day care 3 years prior to schooling, predicted greater risk for lower levels of cooperation and academic competence in the first year of schooling than the extent per week of this care

occasional care

- more days and more hours of occasional care 5 years prior to schooling predicted lower levels of confidence;

nanny care

- more days and more hours of nanny care 4 years prior to schooling predicted lower levels of internalising behaviour, including children appearing sad or depressed, lonely, anxious in groups, having low self-esteem or being easily embarrassed

grandparent care

- regular grandparent care 3 years prior to schooling predicted lower levels of academic competence as did regular grandparent care 2 years prior to schooling.
- in addition, more days of grandparent care 3 years prior to schooling or 2 years prior to schooling predicted lower levels of academic competence, more hours of grandparent care 4 years or 2 years prior to schooling predicted higher levels of summed problem behaviour, and more hours of grandparent care 4 years or 2 years prior to schooling indicated risk of lower levels of cooperation.
- in the year immediately prior to schooling, more days of grandparent care increased the risk of lower levels of cooperation.

These risks were greater when grandparent care was more than 2 days per week or more than 30 hours per week.

care by neighbours, friends or others

- care by neighbours, friends or others regardless of the year prior to schooling or the extent of that care predicted higher levels of internalising behaviour, including children appearing sad or depressed, lonely, anxious in groups, having low self-esteem or being easily embarrassed
- regular and more extensive care by neighbours, friends or others in the year immediately prior to schooling predicted lower levels of confidence, self-control, summed social skills and higher levels of internalising behaviour, hyperactivity and summed problem behaviour in the first year of schooling

father care

- children who received more regular father care 5 years, 4 years, 3 years or 2 years prior to schooling were more likely to have higher levels of cooperation in the first year of schooling. These benefits were greater when father care was for 3 or more days per week or more than 30 hours per week.

mother care

- more days of mother care 3 years or 2 years prior to schooling predicted benefits for cooperation at school. More days of mother care 2 years prior to schooling also provided benefits for higher levels of summed social skills in the first year of schooling, and more days of mother care 5 years prior to schooling protected children against higher levels of hyperactivity at school.
- more days of mother care in the year immediately prior to schooling, especially where this care was for 5 to 7 days per week, predicted risk of higher levels of internalising behaviour including children appearing sad or depressed, lonely, anxious

The influence of personal characteristics, family demographics and school factors on the associations between child care attendance and measures of adjustment to the first year of schooling.

In combination with the indexes of child care, significant child characteristics, family demographics and school factors in the first year of schooling, contribute to our understanding of children's early school adjustment.

Gender, language spoken at home, receipt of family payment, level of parent employment, numbers of transition activities, and attendance at outside-school-hours care contributed significantly to social and behavioural outcomes. Age, language spoken at home, receipt of family payment and numbers of transition activities contributed to academic competence.

Personal characteristics

Gender: Gender significantly predicted cooperation, self control, and higher levels of summed social skills. Girls had higher levels of these outcomes than boys in the first year of schooling. In relation to behavioural outcome, being a girl predicted lower levels of externalising behaviour, internalising behaviour,

hyperactivity and summed problem behaviour. Gender did not predict academic competence.

Age: This investigation suggests that while age correlates with academic competence, being older barely predicts or adds to the variance in this outcome in combination with other variables and indexes of child care.

Birth order: Results indicate that first-born children were more likely to have lower levels of cooperation, and higher levels of externalising behaviour, than subsequent or younger children in a family.

Language: Not speaking English at home was associated with risk of adjustment difficulties. English not spoken at home reliably contributed to adjustment to school in terms of higher levels of externalising behaviour, and lower levels of academic competence, especially in hierarchical models with indexes of centre-based child care and family day care.

Family demographics in the first year of schooling

Parental employment levels: In combination with other variables, father level of employment (unemployed, part-time, full-time) in the year children commenced schooling predicted and added to the variance in measures of adjustment. Children with fathers in full-time employment had more self-control and summed social skills, and less externalising behaviour, hyperactivity and summed problem behaviour in the first year of schooling. Children whose mothers were in full-time employment were more confident when interacting with others than children whose mothers were not employed full-time.

Family payment: Whether or not families received family payment in the year children commenced schooling significantly predicted and added to the variance in cooperation, in models with indexes of centre-based child care, 4-year-old preschool, family day care, grandparent care, father care, and mother care. Children from families that did not receive family payment were more likely to have better adjustment as measured by higher levels of cooperation, confidence, and summed social skills; lower levels of internalising behaviour and summed problem behaviour, and; higher levels of academic competence. Receipt of family payment increased the negative associations between centre-based child care and academic competence and reduced the positive association between nanny care and academic competence.

School factors

The findings in this study revealed that school transition experiences and attendance at outside-school-hours care were associated with children's adjustment to school. These results are new and contribute significantly to current understandings.

Children's participation in more transition activities: reliably predicted higher levels of confidence, self-control, summed social skills, and academic competence.

Outside-school-hours care: Attendance at after-school care provided benefits to children in relation to lower levels of internalising behaviour. Attendance at before-school care was strongly associated with measures of problem behaviour including externalising behaviour, hyperactivity, and summed problem behaviour. Given that 17.4% of children attended before-school care, this predictor of poor adjustment outcomes deserves further attention.

Discussion

In seeking to understand the associations between different parental and non-parental child care arrangements and adjustment to schooling, it is important to revisit the skills and behaviours related to early school adjustment and characteristics of care that may or not promote their development. Adjustment to school appears to revolve around skills and behaviours associated with self-regulation, self-assurance and adaptability in relation to the classroom. Difficulties may occur when children are non-compliant, disorganised, distractible and demonstrate anti-social behaviours. Home-based and more organised, regulated preschool environments may enhance children's ability to self regulate, and increase children's ability to accommodate and consider the needs of others, and to be less reactive. It may also be that fathers' full-time employment brings stability to a child's life, and the orderliness associated with full-time employment benefits children as they face the uncertainties and possible dislocations associated with the commencement of schooling.

This study indicates that extensive centre-based childcare is associated with children showing reduced adaptability in a number of areas. It may be that the extensiveness of these care arrangements leads to behaviours that are over-

reactive and lacking self-control. In addition, attendance at centre-based child care in the year 5 years prior to schooling, regardless of timing or extent, also predicted poor developmental outcomes and lends support to existing research that early and extensive child care places children at risk of future detrimental, developmental outcomes.

Boys are more at risk than girls of deleterious adjustment outcomes in the first year of schooling. They are also more likely to attend centre-based child care, and less likely to attend 4-year-old preschool or have early regular father care than girls, which may increase the risk of deleterious outcomes. This raises questions related to the experiences of boys and whether they face additional risks associated with maybe receiving more extensive non-parental childcare than girls.

Results also show increased risks for children if they are in families who receive family payment and in families where the father is not in full-time employment. This study implies that children in families with the demographic and social resources to potentially facilitate the development of skills and behaviours that support adjustment to schooling are advantaged when compared with children who do not have these resources.

Further Research

If the skills and behaviours for adjustment to the first year of schooling are developed in part through early child care experiences, and influenced by personal characteristics, family demographics and other life experiences it is important that research is conducted to:

- determine if the benefits and risks associated with child care attendance and other variables are cumulative, and if they persist over time;
- investigate any compensatory effects among the predictors that predicted benefits for children's adjustment to school. For example, an exploration of interactive effects may identify whether comprehensive transition programs with many opportunities for children to become familiar with the school setting prior to commencement, for children who are boys, first born children, in low

socio-economic families, with fathers not in full-time employment, who do not speak English at home, or who attend extensive centre-based care, have a positive and compensatory influence on children's early school adjustment. Similarly the interactive influence of regular father care, father level of employment or attendance at 3-year-old or 4-year-old preschool for children at risk of deleterious outcomes could be investigated. Thus particular characteristics of one variable may be found to interact with particular characteristics of another variable in predicting more positive adjustment to school;

- identify the ways in which extensive care in particular settings benefits or limits early school adjustment;
- explore the conditions and influences of non-parental outside-school-hours care in more detail and to consider strategies for addressing any detrimental outcomes of that care, given the trends toward greater use of this care and the lack of research in this area;
- explore the influences of family day care, occasional care and the different types of informal care on children's development and adjustment;
- identify and develop interventions that can be implemented to prevent or minimise the potentially detrimental risks, and maximise the potentially advantageous relationships. including those related to self-regulation and self-control;
- identify the conditions that nurture important skills and behaviours.

Recommendations for practice

In association with the influences of socioeconomic and parental employment factors, and the probable long term implications of early school adjustment for developmental outcomes in adolescence (Cowan et al., 1994; van Ijzendoorn et al., 1995), these findings have social and educational policy implications. In reflecting the complexity of children's and family's lives, the results provide

challenges to current thinking about the relationship between work, socio-economic status and family life.

Strategies and practices to prevent or overcome maladjustment and to enhance children's functioning need to be implemented as early as possible. In addition these practices need to be comprehensive and responsive to individual needs.

There is a need for government policy to provide assistance and expenditure for children at risk of deleterious developmental outcomes. This may include:

- increased financial support for families with young children, and support services for children in families where the father is not employed full-time;
- increased maternal and paternal work-place leave entitlements;
- support for increased pre-and post service training and education of staff in formal child care services.

Finally, government and education bodies and early childhood professionals have a responsibility to provide conditions of care that benefit children. These conditions will be informed by research that provides evidence of both desirable and less desirable outcomes. The focus should not be about what type of care is good or bad for children but rather about the ways that research can better inform policy and practice in relation to the care and education of young children, so that it fosters good developmental outcomes.