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The effects of quality child care on children from low income families. A study of outcome variables for some children in Singapore.

Pamela Sharpe

## Introduction

Pre-school education has throughout history, mirrored the changes in the societies it has served. In the 1960's pre-school provision was rediscovered as a mechanism for intervention in the care of minority groups of children who were seen as unable to benefit from of the riches of their culture and society due to inadequate provision in the home or some other external cause such as handicapping conditions within the family. Here assumed cognitive incapacities were to be overcome by the provision of stimulating environments outside of the home. The aim was to resolve inequalities between those who were participants in the creation of wealth, and those who were unable to be. Additionally, attempts were made to equalize educational opportunities, with pre-school programmes instrumental in the early diagnosis of possible developmental disturbances. The most successful of these programmes though, focussed on the advocacy of educational objectives and on expert guidance for young children and their parents. (Lazar and Darlington, 1982).

More recently, the trend to identify successful pre-school programmes has been concerned with measures of effectiveness in terms of comparisons between children brought up in the home and those experiencing pre-school, and, comparisons between differences in types of programme quality. (Ball, 1994; Sylva & Wiltshire, 1993; Osborne, 1987). Other factors include the overall pre-school climate, the setting, the children's daily experiences, and the impact on and relationship with the family environment. (Bredenkamp, 1990; Phillips and Howes, 1987). In addition, some specific positive outcomes of quality care have been identified, (Ball, 1994; Gullo & Burton, 1993; McKim, 1993; Lamb, Sternberg, Hwang, & Broberg, 1992; Melhuish & Moss, 1990; Thornburg, Pearl, Crompton, & Ipsa, 1990; Burchinal, Lee, & Ramey, 1989; Howes, 1988; Vandell, Henderson, & Wilson, 1988; Phillips, 1987), in addition to the effects of poor quality care, ( Scarr & Eisenberg, 1993, Melhuish & Moss, 1990; Wasik, Ramey, Bryant & Sparling, 1990; Goelman & Pence, 1987; McCartney, 1984). Other research into features of pre-school provision concerns the prevalence of behaviour problems which have been found to be associated largely with family issues, ( McGuire & Richman, 1986,

1987; Coleman, Wolkind & Ashley, 1977; Richman, Stevenson & Graham, 1975) and insensitive caregivers, (Sharpe, 1995; McKim, 1993). Research has also indicated some lasting effects of such influences on children exhibiting behaviour problems, (Scott<sup>TM</sup>Little and Holloway, 1992; Pfannenstiel & Seltzer, 1989; Holloway & Reichhart Erikson, 1988; Phillips, McCartney & Scarr, 1987).

Furthermore, research which focusses partially on teachers' perceptions of children's temperament, indicates the significance for children's adjustment and teachers' ability to control early disturbances. (Zajdeman & Minnes, 1991).

In order to minimise such effects, quality care is often

regulated by the policies of some Governments, and Singapore is no exception. However, as Scarr McCartney, Abbott<sup>TM</sup>Shim, and Eisenburg, (under review) point out, in distinguishing regulatable units of the pre<sup>TM</sup>school environment, such as ratios, group sizes etc., and the process features, such as adult<sup>TM</sup>child interactions and developmentally appropriate activities, policy makers usually assume that regulatable measures of provision are related to process measures. However, research is cited which suggests that some non<sup>TM</sup>regulatable items are highly correlated with process quality indices, eg: staff salaries, whereas regulatable indices such as staff child ratios, group sizes, staff turnover and training, have a low correlation with quality process measures.

Nevertheless, given that reliable international comparisons of quality pre<sup>TM</sup>school provision are difficult, not least because of the variety of social, political, cultural and economic issues implicitly involved, there does appear to be common concern for quality in pre<sup>TM</sup>school provision in the developed world, regulatable and non regulatable, especially in terms of its long term effects on disadvantaged children.

In Singapore, largely in an attempt to attract more women into the work force, the Government has made available full day subsidised child care and education for all pre<sup>TM</sup>schoolers who require it, in addition to 3 or 4 hour Kindergarten programmes. Some form of pre<sup>TM</sup>school provision is experienced by 90% of children, between the ages of 2 and 6 years of age, and competition for places in selected centres is fierce, and even though certain indicators of quality are regulatable, some are not so clearly defined. Thus in an attempt to identify some of the non<sup>TM</sup>regulatable features which may be indicative of pre<sup>TM</sup>school quality, this paper is concerned with the long term benefits for a group of children from low income families in one family service centre in Singapore.

## The advantages of an appropriate provision for disadvantaged pre-schoolers

The emphasis on the importance of a stimulating environment is central to the research into its lasting effects on disadvantaged children. The negative effects of impoverished home backgrounds, have been shown to be minimised by attendance at pre-schools with small groups of children, (Gullo & Burton, 1993). Furthermore, after controlling for the effects of home background, high quality stable pre-school provision is associated with academic progress, school skills, fewer behaviour problems, and more sociable encounters with peers later on, (Osborne, 1987; Howes, 1988; Vandell, Henderson, & Wilson, 1988; Melhuish & Moss, 1990), and, such social gains have been found to be more dependant on quality care than other developmental features, (Stroufe, 1986; Thornburg, Pearl, Crompton & Ipsa, 1990).

Persuasive arguments for the immediate and lasting social and educational benefits for disadvantaged children which contribute to later desirable social and economic returns are used to link cost effective investment to issues of public funding and priority, (Sylva, in Ball, 1994). In highlighting the evidence for the "lasting effects" view of the importance of publically funded pre-school provision for all, Sylva cites the two USA compensatory education programmes: Head Start and High Scope. Of

the former, the benefits to socially and economically disadvantaged children are reported to be significant, whilst the impact of the High Scope programme appears to have been its cost effectiveness measured in terms of financial returns to society, the results of savings on preventive measures for anti social juvenile issues and any necessary intervention.

However, whilst such evidence is impressive it may be misleading to assume that such lasting effects are due to such early intervention. Woodhead, (1994) points to the interaction of mediating variables with pre-school programmes including such effects as the influence of peer groups, and the divisiveness of the elementary school system in the USA. More specifically, he refers to the mistake of confusing the needs of a specific disadvantaged minority with the needs of pre-schoolers in general. For example it is suggested that the success of protective programmes designed to reduce the risk of failure in some children and thus minimising the effects of labels, should not be generalized to a wider cohort of children who would not in any case be at risk of failure. Relatedly, it is suggested that the effects of reforms designed to maximise teaching and learning

opportunities for the disadvantaged, in the elementary school system, would in any case diminish any of the earlier effects of pre-school. Furthermore, as McKim (1993) points out, it cannot be automatically assumed that later problems will be avoided by early attendance at a high quality pre-school programme. More recently, any variations in centre quality have been found to be only minimally related to adjustment and behaviour difficulties, since caregiver, family and child characteristics have been shown to be more significant, (Whitebook, Howes & Phillips, 1990; Scarr McCartney, Abbott-Shim, and Eisenburg, (under review). The expectations of those responsible for pre-schoolers though, and especially those at risk, suggest that caregivers need certain kinds of characteristics and skills if they are to be effective in their roles.

#### The advantages of child care provision in Singapore of regulated quality

In most developed nations, the last two decades has witnessed a shift from the constraining effects of the extended family unit to the freedom from its influence, in the form of the nuclear family, and, with this shift, a conflict of priorities relating to responsibility has emerged. (Coote, Harman, & Hewitt, 1990). However, the support in Singapore for the public responsibility for children of employed parents, is not seen as the private concern of the family, rather the social conscience is influenced by the need to maintain strong family ties and values, and pre-school provision for children of employed parents, disadvantaged or not, is social priority.

Women are actively encouraged to rejoin the workforce and for low income families this contribution represents a substantial part of the combined family income. Nevertheless, even with the provision of government subsidised pre-school care and education there are a number of families for whom even this is unaffordable, and further subsidies are available for hardship cases. At the Social Service Centre, the full child care fees for families are between S\$220 and S\$250 per month per child, and subsidies to parents from the centre range from S\$10 to S\$240 per month. However, families receiving such subsidies are regularly reviewed and encouraged to resume responsibility for their own

contributions. However, in the last two years whilst there has been a noticeable decrease in the number of two parent families receiving this extra subsidy, there is a sizable increase in single parent families and families with one non functioning spouse requiring this subsidy. (Ang Mo Kio, 1994). In general terms it is observed that because of financial difficulties in general, such families frequently withdraw their children

temporarily from the centre until counselled by social work staff. The major purpose of this paper then, is to draw attention to the observable long term benefits which children from such families have received. In order to establish more precisely some benefits of the provision, selected characteristics of children who had previously attended the child care programme were compared with those of children who had experienced alternative arrangements. As such observations and information about the children currently attending the centre's Before and After School Intervention and Care programme were assembled. The information comprised details of school progress, family circumstances and previous pre-school arrangements.

One group of children from low income disadvantaged families in Singapore

The 30 children involved in the study attend the Centre's Before and After School Intervention and Care Programme. This programme provides supervised out of school leisure and recreational activities for primary school children of low income working parents. Observations of the children were collected according to their previous pre-school arrangements, family circumstances, and progress in primary school. Common characteristics were found to be parents' low income and employment status, and low educational levels. Not all of the children had previously attended the child care provision and of those who had, the social workers reported that for one group of these children there was a significant improvement in parent/child and parent/ centre relationships. As such it was possible to assign the children to one of three groups.

Group A are children who are reported to be benefitting most from the services of the centre. The children were formally in the child care centre and the families are reported to be supportive and involved with their children and the centre. Table 1 shows that of the 11 children, 5 have one parent described as a peripheral or non-functioning spouse resulting in the burden of responsibility for the family falling on the mother. The availability of the extra subsidy has however enabled the children to benefit from the services of the centre since their pre-school days. As a result of family counselling and financial management advice, the families of 5 other children no longer require the extra subsidy.

Group B are children who were formally in child care, and

whose

families are all employed and therefore unable to be actively involved with their children in the centre. Of these 9 children, 1 has one parent described as peripheral, and 1 single parent receives the special subsidy.

Group C are children who have not previously attended full day

child care and joined the current programme on starting primary school. Of these 10 children, 5 have 1 parent described as peripheral, and 4 others are from single parent families.

When comparisons are made between the three groups of children according to their school progress, some interesting findings are revealed. Information on school progress was recorded from school reports and end of year grades were noted for english and maths. Tables 4, 5, and 6 show these results in percentages over the last 4 years since 1990. Although some children have been in school longer than others, it is possible to discern some noticeable differences between the three groups. Figure 1 gives a graphical profile for the three groups for progress in english. The percentage grades for Group A appear to be maintained at the higher end of the scale, with Group B maintaining a slightly lower profile and some declines, and Group C showing more of a spread but with more of a decline than the other two groups. Figure 2 compares Group A with Group B and the differences are a little more apparent. Figure 3 shows the comparisons for maths. Here the differences are more apparent with the maintenance in progress being most evident in Group A and the decline most evident in Group C. Figure 4 compares Groups A and C more vividly.

Group A appear

to show more evidence of stability in school grades, and social workers reported improvements in parental support and involvement. Such evidence though can do no more than suggest inferences about any

lasting effects of the quality controlled pre-school environment, and the family support services these children have experienced. However, the observations are quite revealing when school progress reports are compared in this way and this small study has pointed to out some benefits for one group of children who would otherwise not have been so fortunate.

## Some conclusions

Whilst it is by no means being claimed that any improvements and benefits for one group of children observed in this study are attributable solely to the effects of the quality controlled pre<sup>™</sup>school experience or the family support services, it is suggested that these influences may have been substantive. It may well be the case that the provision of good quality child care and family support contributed to the financial stability and harmony of the families and this may have in turn contributed in some way to the maintenance of school progress. If just one group of children have benefitted in this way only time will tell if this results in a financial saving to society in the long term. Given that the mediating effects of primary school and peer groups may alter the course of progress in the years ahead, at least these children have been given a push start which they would not otherwise have had.

## References

Ang Mo Kio Social Service Centre, (1994) Child Care Subsidies: The need for increased funding. October 1994.

Ball Christopher, (1994) Start Right. The Importance of Early Learning. RSA. The Royal Society for the encouragement of Arts, Manufacturers & Commerce.

Bredenkamp, S., (1990). An overview of NAEYC's criteria for high quality early childhood programs, In B. Willer (ed), Reaching the full cost of quality pp. 41051. Washington, DC:NAEYC.

Burchinal, M. Lee, M., Ramey, C., (1989) Type of Day@Care and Preschool Intellectual Development in Disadvantaged Children Child Development, Vol. 60. pp. 128@137.

Coleman, J., Wolkind, S., Ashley, L., (1977). Symptoms Of Behaviour Disturbance And Adjustment To School. Journal of Child Psychology and Psychiatry, 18, pp.201@209.

Coote, A. Harman, H. Hewitt, P. (1990) The Family Way. A New Approach to Policy@Making. Social Policy Paper No. 1, London: Institute for Public Policy Research

Goelman, H. & Pence, A.R., (1987). Effects of child care, family, and individual characteristics on children's language development: The Victoria Day Care Research Project. In D.A.

Phillips (ed). Quality in child care: What does research tell us? Washington, DC: NAEYC.

Gullo, D.F. & Burton, C.B., (1993) The effects of social class, class size and prekindergarten experience on early school adjustment. *Early Child Development and Care*. Vol. 88. pp.45-51.

Holloway, S., D., & Reichhart-Erikson, M., (1988). The Relationship of Day Care Quality to Children's Free-Play Behavior and Social Problem Solving Skills. *Early Childhood Research Quarterly*, 3, pp.39-52.

Howes, C., (1988) Relations Between Early Child Care and Schooling. *Developmental Psychology*. Vol. 24 No. 1. pp.53-57.

Lamb, M., Sternberg, D., Hwang, P., & Broberg, A. (1992). (eds). *Child care in context*, Hillsdale, NJ: Erlbaum.

Lazar, I., Darlington, R., (1982). Lasting Effects of Early Education: A Report From The Consortium for Longitudinal Studies, *Monographs for the Society For Research in Child Development*, Serial No. 195,47.

McCartney, K., (1984). The effect of quality of day care environment upon children's language development. *Developmental Psychology*, 20. pp. 244-260.

McKim, M.K., (1993) Quality child care: what does it mean for individual infants, parents and caregivers? *Early Child Development and Care*. Vol. 88. pp. 23-30.

Melhuish, T. & Moss, P. (1990). (eds). *Daycare for Young*

*Children: An International Perspective*. London: Blackwell.

McGuire, J., Richman, N., (1986). Screening For Behaviour Problems In Nurseries: The reliability And Validity Of The Preschool Behaviour Checklist. *Journal of Child Psychology and Psychiatry*, 27, pp. 455-472

Osborn A.F. (1987) Early Starter. *Child Education*, July, pp.10-12.

Pfannensteil, J., C., & Seltzer, D., A., (1989). New Parents as Teachers: Evaluation of an Early Parent Education Program. *Early Childhood Research Quarterly*, 4, pp.1-18.

Phillips, D.A., (1987). (ed). *Quality in child care: What does research tell us?* Washington. DC: NAEYC.

Phillips D., Howes, C. (1987). Indicators of quality in child care: Review of Research. In D.A. Phillips (Eds). Quality in Childcare: What does research tell us? pp. 21-43. Washington DC: NAEYC

Phillips, D., McCartney, K., Scarr, S., (1987). Child Care Quality and Children's Social Development. Developmental Psychology, vol,23, no.4, pp.537-543.

Richman, N., Stevenson, J., E., Graham, P., J.,(1975) Prevalence Of Behaviour Problems in 3-Year-Old Children: An Epidemiological Study In A London Borough. Journal of Child Psychology and Psychiatry, 16, pp.277-287.

Scarr, S., & Eisenberg, M., (1993). Child care research: Issues, Perspectives, and Results. Annual Review of Psychology, 44, pp.613-644.

Scarr, S. McCartney, K. Phillips, D. & Abbott-Shim, M. (1993) Quality of child care as an aspect of family and child care policy in the United States, Pediatrics, 91, pp. 182-188.

Scarr, S. McCartney, K. Abbott-Shim, M. Eisenberg, M., (1993) Small Effects of Large Quality Differences Among Child Care Centre on Infants, Toddlers, and Pre-school Children's Social Adjustment. Under Review.

Scott & Little, M., C., Holloway, S., D., (1992) Child Care Providers' Reasoning About Misbehaviours: Relation to Classroom Control Strategies and Professional Training. Early Childhood Research Quarterly, 7, pp.595-606.

Stroufe, L.A., (1986) Attachment and the construction of relationships. In W. Hartup & Z Rubin (eds), Relationships and Development. Hillsdale, NJ: Lawrence Erlbaum Assocs.

Sharpe, P.J., (1995) A Study of Some Home and School Factors Which Influence the Social Behaviour of Some Pre-schoolers in Singapore. Early Child Development and Care, Vol. 104. pp

Sylva K & Wiltsher, (1993) The Impact of Early Learning on Children's later Development. European Early Childhood Research Journal, vol.1 no.1 pp. 17-40.

Thornburg, K.R., Pearl, P., Crompton, D., Ispa, J.M. (1990) Development of Kindergarten Children Based on Child care

Arrangements. Early Childhood Research Quarterly, vol.5. pp.27-42.

Vandell, D.L. Henderson, V.K. & Wilson, K.S., (1988) A Longitudinal Study of Children with Day@Care Experiences of Varying Quality. *Child Development*. Vol. 59. pp. 1286@1292.

Wasik, B.H., Ramey, C.T., Bryant, D.M., & Sparling, J.J. (1990). A longitudinal study of two early intervention strategies:Project CARE. *Child Development*, Vol. 61. pp 1682@1696.

Whitebook, M., C., Howes, C., & Phillips, D., A., (1989). Who cares? Child care teachers and the quality of care in America. Executive summary of the National Child Care Staffing Study. Oakland, CA: Child Care Employee Project.

Woodhead M. (1994) When 'Effects' Become 'Causes' © A Comment on the 'Impact of Early Learning'. *Open Dialogue: Peer Review*. The British Psychological Society, Education Section Review. vol 18. no.2 pp. 61@63.

Zajdeman, H., Z., Minnes P., M., (1991). Predictors of Children's Adjustment To Day@care. *Early Child Development and Care*, 74,pp.11@28.