

Creating an enabling environment for early childhood development: A collaborative effort

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Key messages

- Compared with household income, parental time investment and quality child-parent interactions generate positive impacts on early child cognitive development
- The advocacy of active implementation of family-friendly policies, promotion of quality parenting, and increased access to childcare services will be crucial to enable parents to engage in learning-related activities with their children

Key policy recommendations

Promotion of family-friendly policies

To provide direct or indirect subsidies to companies undertaking family-friendly policies

Advocacy of quality parenting

To provide subsidies to non-governmental organisations to promote quality parenting in early childhood

Increase accessibility to childcare services

To implement fee remission measures to increase the accessibility to childcare services and to support the family function of working mothers

About the research

This study investigated the mediating roles of parental investment and parental distress in the link between poverty and children's cognitive development. The team conducted assessments and surveys with 167 preschool children and their parents in the 2019/2020 academic year.

This brief shares findings from this research with an aim to inform policies in relation to the advocacy of maximum working hours, flexible work-life balance arrangements, quality parenting, accessibility of childcare service as well as promoting maternal employment.

Socioeconomic status (SES) and children's cognitive development

Educational attainment is one of the vital determinants of social mobility. Children growing up in poverty, however, face significant challenges when attempting to move up the social ladder. Household income creates an impact on childhood economic conditions, and particularly so for children who are underprivileged. Empirical studies have shown causal relationships between childhood poverty and negative outcomes of physical and mental health, cognitive ability, poor academic achievement as well as income in adulthoodⁱ. With a focus on children's cognitive development, previous studies suggest that some external factors could be influenced by the effect of household income and determine children's cognitive developmentⁱⁱ.

SES and children's cognitive development: Mediation through parental investment

Families with better SES tend to invest their time and resources on children's educational activities and engage their children in a variety of cognitively stimulating materials and experiences

to promote their child's development. The provision of cognitively stimulating materials (e.g. books and educational toys) and engagement in educationally enriching activities (e.g. reading, visits to museum and library) have consistently been shown to be predictive of children's cognitive and academic functioning. It is, therefore, believed that the extent of parental investment of time and resources on their children could be potential mediators influencing the relationship between families' SES and children's cognitive development.

SES and children's cognitive development: Mediation through parental stress

With a Gini Index of 53.9 in 2016, Hong Kong has one of the highest income inequality ratios in the world. Given high property prices, an entirely private early education system (where schools charge a higher tuition fee for offering Cantonese-English bilingual education) and long working hours, the home effect on children's neurocognitive outcomes is found to be more pronounced in early childhood in Hong Kong.

Low income families frequently experience economic strains such as limited access to basic necessities and difficulty in making bill payments due to unstable work and income loss. Parents with low SES are not able to spend as much time and resources or engage their children in cognitively stimulating activities as parents with higher SES. They may have to resume work shortly after giving birth. They may also have a greater probability of experiencing psychological problems, which is considered to be another potential influencing factor on children's cognitive development. Having considered the economic strain on low SES families and their capacity for engaging in parenting practices, parental distress has also been examined and analysed for the impacts on children's cognitive development.

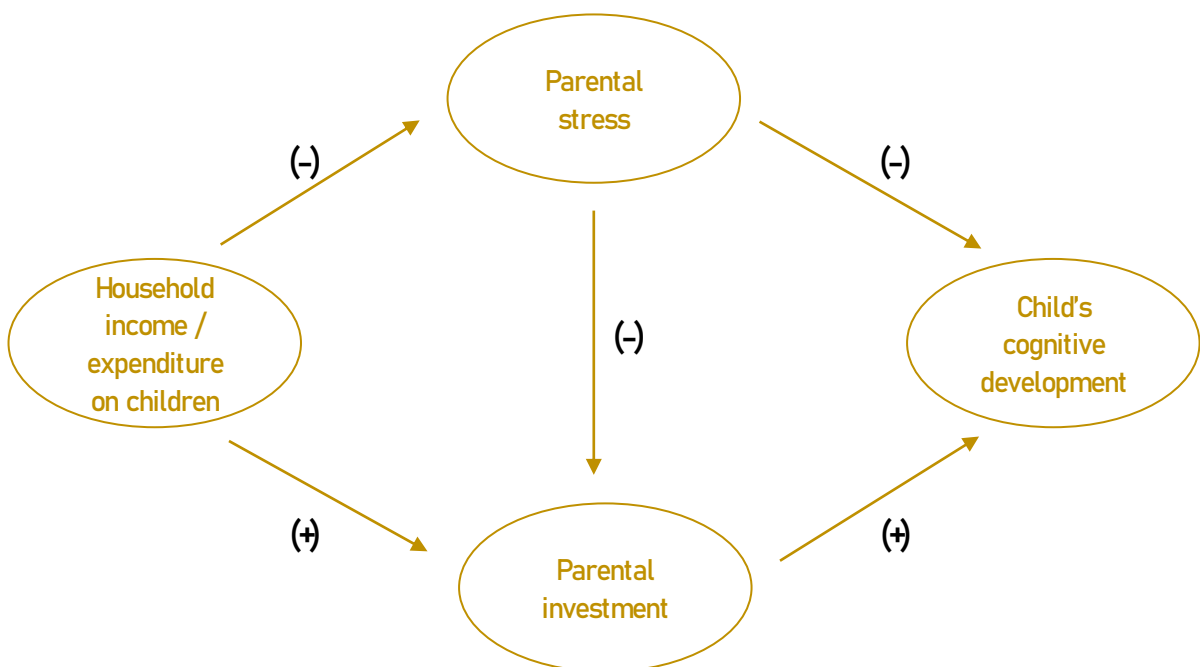
Research approach

This empirical research consisted of two core elements – (i) neurocognitive assessment and (ii) self-administered parent questionnaire. The neurocognitive assessment assessed four functional domains of children, including attention and executive functioning, language (Cantonese and English), memory and learning, and visuospatial processing of preschool children. The self-administered questionnaire was completed by parents, which helped the team to understand their SES, parental investment and parental distress. The self-administered parent questionnaires and neurocognitive assessments were undertaken in academic year 2019/2020. The team successfully completed the neurocognitive assessment and questionnaire with 167 preschool children (aged 36 to 47 months) and their parents drawn from nine kindergartens located in different districts in Hong Kong.

The team examined the effects of parental investment and parental distress on child's cognitive development derived from SES in four pathways (Figure 1), including:

- (i) The relation between household income and child assessment performance mediated by parental stress;
- (ii) The relation between household income and child assessment performance mediated by parental investment;
- (iii) The relation between household income and child assessment performance mediated by both parental stress and investment; and
- (iv) The relation between expenditure on children and child assessment performance mediated by parental investment.

Figure 1. An analytical framework for mediation analysis



Note: The (+) and (-) signs denote hypothesised positive or negative relations

Key findings

The team concluded that SES did not have any direct impacts on child's cognitive development. It was revealed that neither household income, expenditure on children's learning-related activities nor parental education had any significant direct linear influence on children's cognitive development.

Looking at the effects of SES on parental investment and parental distress, evidence supported that parental time investment and quality child-parent interactions did stronger effects than household income on early child cognitive development. The team also revealed that higher parental distress was experienced by parents with lower educational attainment and families with lower household incomes.

SES and children's cognitive development: Mediation through parental investment

The study findings revealed for both families with higher or lower household income, their investment on children's non-language-related activities (e.g., playing board games; going out with child) could be inadequate. Such inadequacy is foreseen to create impacts on the long term cognitive development of children. The team deduces that better-off parents who are fully occupied with their paid work may have limited time spend on non-language-related activities with their children.

SES and children's cognitive development: Mediation through parental stress

The study showed that higher parental distress was experienced, in particular, by families with lower household income. However, the expected high correlation between parental distress and negative performance in English or Chinese languages was not supported in this study. The team infers that quality external childcare relieves the negative impacts of parental stress on child cognitive development, especially for children from disadvantaged families.

Policy implications and recommendations

The team concludes that parental time investment and quality child-parent interactions generate stronger effects than household income on early child cognitive development. It is therefore crucial for parents to build up a good relationship and maintain quality interactions with their children, which is believed to create positive impacts on children's early cognitive development and social behaviourⁱⁱⁱ.

To promote upward mobility, inputs from different stakeholders to create a fair environment will be crucial. Thus, the team recommends:

Promotion of family-friendly policies

In Hong Kong, more than one third of the labour force engages in work for more than 50 hours per week^{iv}. This results in limited time involvement in childcare activities and affects children's long-term development. Organisations should implement flexible working hours and work life balance arrangements to cater to the needs of working parents as well as to promote child-parent interactions. While majority of employers belong to small and medium enterprises, the team suggests government could provide direct or indirect subsidies, for example tax relief measures and subsidies towards employees' insurance and Mandatory Provident Fund, to those who undertake family-friendly policies.

Advocacy of quality parenting

In order to facilitate active parenting, the team believes non-governmental organisations can play a crucial role in equipping parents with the skills needed for creating a stimulating home environment and for engaging their children in more structured activities, like reading and mother-child verbal interactions. In the meantime, government should provide greater support to parents in a more systematic way. Currently, the parent education programmes offered either by government or private organisations are mostly basic and vary in quality.

The team suggests that collaboration between the Labour and Welfare Bureau, Education Bureau and Department of Health could help to formulate and provide a series of continuous and high-quality training programmes on parenting. Given that non-governmental organisations providing early childhood education services have space and talents in place, and more importantly possess channels for getting in touch with parents, government is strongly encouraged to provide subsidies to those non-governmental organisations to promote quality parenting in early childhood.

Increase accessibility to childcare services and promotion of female labour force participation

Mothers from low-income families who have child caring responsibilities but cannot have access to affordable or available supporting services cannot return to the labour force to help relieve their family's financial burden. Regarding the female labour force participation rate by marital status, 70.1% and 49.3% were unmarried and married respectively in 2019^{iv}. This reflects that some married women may temporarily or permanently quit from the labour force.

The team believes a system of enlarged childcare services can increase the participation rate of the female labour force and relieve the caring burden of parents. However, the availability of childcare services may constrain the opportunities for parents to return to the labour force. A recent study showed that the overall availability of Child Care Centres (CCCs) for children aged under 2 was 1:61, and for aided places was 1:114 in 2016^v. The availability of CCCs improves for children aged between 2 and 3, where the overall availability was 1:2, and for each 9 children there is one aided place. It is foreseen that it is difficult to cater to the needs in the short term although the government has promised to increase the number of places for childcare services.

The affordability of CCCs is another concern to parents. A great contrast in the expenditure on childcare services was seen between lower and higher income households. Families with lower affordability potential may spend more than half of their income on childcare services while families with higher affordability may only spend less than 10%. Day care services for children under 2 or below take a monthly charge of between \$4,000 and \$6,000 or above. It is thus rather difficult for low-income families to meet the criteria for fee remission. The shortage of childcare services in addition to the low affordability for low-income families create barriers to the access of childcare services. The team, therefore, suggests government to implement fee remission measures to increase the accessibility to childcare services and to support the family function of working mothers and, in the long run, to facilitate female participation in the labour force.

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