Abstract

HOLISTIC DEVELOPMENT OF THAI CHILDREN: ITS ASSOCIATION WITH FAMILY FACTORS AND CHILD REARING

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The ultimate goal of national child policy has been set at a "smart, good and happy" child. In order to achieve this goal, all aspects of child's development must be nurtured.

In 2001 the Holistic Development of Thai Children Study has conducted a nation-wide survey of Thai children aged 1-18 years old and their families enrolled by a stratified three-stage random sampling. Data collected included child's weight and height, developmental quotient (DQ) or intelligence quotient (IQ), emotional-social-moral behavior score (ESM), family data, and child rearing practice (CR).

Normal holistic development was defined as height-for-age (HA) equal to or above median - 2 SD, DQ or IQ equal to or above 90, and ESM score equal to or above 25th percentile for age. Delayed holistic development was defined as having any of the three components below the above cut-off points. Principal component analysis was used to combine the three components (HA, DQ or IQ, ESM score) and create a new holistic development score (HDS). Then this new variable was used in the Path Analysis to explore the effect of family determinants and CR on holistic development of Thai children.

Results: A total of 9,488 children aged 1-18 years old were studied. With regards to nutritional status, by using the 1999 Thai Growth Reference, the prevalence of obesity in this survey was 8.2%, that of underweight was 5.4%, whereas that of stunting was 6.2%. Comparing to previous national surveys over the past 15 years, prevalence of underweight of the young children has constantly declined 1.2% per year. The stunting prevalence has decreased 1.2% per year too during the first ten years but it has not changed much later. For obesity which has been recognized recently, its prevalence has increased alarmingly 36% in just 5 years.

The cognitive development of subjects was more behind as they were older. Mean developmental quotient was 100.5 (standard deviation of 14.3) for the 1-<3 y-olds, 111.5 (sd 20.5) using the Draw-A-Person Test and 91.1 (sd 22.7) using the Gesell figure drawing for the 3-<6 y-olds. Mean intellectual quotient (IQ) of the 6-<13 y-olds and the 13-18 y-olds was 88.0 (sd 12.6) and 86.7 (sd 13.9), respectively.

With regards to ESM development, comparing with the American children aged 12-35 months old, our subjects were more developed in prosocial peer relations and empathy but less-developed in mastery motivation and attention skill. Subjects aged 6-<10 years were well-developed in the social relatedness like the younger ones but less-developed in attention and patience skills. As they reached late adolescence they learned most of life skills except the creativeness. Moral development score, on the contrary, was inversely associated with age.

A total of 8,258 subjects aged 2-18 years old[1] were eligible for HD analysis. Prevalence of delayed HD increased with age from 47.4% in the under three to 67.3% in the 3-<6 y olds, 73.6% in the 6-<13 y olds, and 75.5% in the 13-18 y olds. The northeastern and the northern regions had the highest prevalence, while Bangkok region had the lowest. Using Path Analysis, the two most important factors influencing HD were CR score and family income. Effect of CR score on HDS was largest in the 2-<6 y-olds, but ranked second in the 6-<13 y-olds and the 13-18 y-olds. Its effect size also decreased with age. On the contrary, family income ranked first in the 6-<13 y-olds and the 13-18 y-olds but ranked second in the under 6 group. Factors influencing the child rearing practice of the 2 - < 6 y-olds were family income and number of children in the family. Those of the school age children and adolescents were parental education.

This is the first report of holistic child development and will be the milestone of research on development of the whole child. Our findings will be useful for a strategic formulation of an effective national child's development policy to achieve the desired goal. They will also serve as the baseline for future national surveys.

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[1] Height data was not collected in the 1-<2 years old subjects, eligible cases for this analysis thus included subjects aged from 2 to 18 years old.