Influence of Parenting Styles on Development of Children Aged Three to Six Years Old

Sutham Nanthamongkolchai PhD*,
Chutima Ngaosusit MSc*, Chokchai Munsawaengsub MD*

** Department of Family Health, Faculty of Public Health, Mahidol University*

Objective: *To investigate the influences of parenting styles on development of children aged three to six years.*
Material and Method: *A cross-sectional study was conducted in 360 children and their parents selected by multi-stage random sampling. The data were collected from July 24th to August 31st, 2004. The Denver II test kit and the scale by Baumrind D were used to test the child development and parenting styles respectively. A questionnaire was used to collect the family and child factors. Data were analyzed by frequency distribution and Multiple logistic regression with the significant level set at p-value of <0.05).*
Results: *Parenting styles had significant influences on child development (p-value < 0.05). Children raised with a mixed parenting style had a 1.9 times higher chance of having delayed development compared with those with democratic parenting style. In addition, significant family and child factors for explaining child development were family type, mother's education, father's occupation, relationship within the family, nutritional status and sex.*
Conclusion: *Parenting styles had a significant influence on child development. The children raised with mixed parenting style had a 1.9 times higher chance of having delayed development compared to those whose parents used democratic parenting style. Therefore, the parents should rear their children by using the democratic parenting style that leads to the age-appropriate development child.*

Keywords: *Parenting styles, Children aged three to six years, Development*

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Growth and development of children during three to six years old are very important and are the basis of further child development. To promote proper growth and development to age, the significant factor is the child rearing from their families because it is the environment of the children[1,2]. Kumar R et al, studied factors influencing psychosocial development of preschool children in a rural area of India. They found that child rearing is the major factor that influences the child development[3]. The study of Nanthamongkolchai S et al on family factors influencing development of preschool children aged three to six years in four areas of Thailand showed that the children receiving good child care and child rearing had a 2.3 times higher chance to have normal development compared with those receiving poor child care and child rearing[4]. Similar to the study by Isaranurug S et al that found that factor influencing development of children aged one to under six years was appropriate child rearing. Those with proper rearing had a 2.7 times better development than those with improper rearing[5]. Baumrind D[6,7] has classified parenting style into three types: Democratic, Authoritative, and Permissive. Each style has a different influence to each child development areas. In addition, the familial socioeconomic status and family relationship also influence the children's development, for those with high economical status and good family relationship had better development than those in low economic status and poor family relationship[3,8,9]. The literature review showed that the rearing factor had an influence on development of a child aged three to six years, but the study of the effect on child development by different parenting styles particularly in a developing country is very few. The present study aimed at analyzing influences of parenting styles on develop-

Correspondence to : Nanthamongkolchai S, Department of Family Health, Faculty of Public Health, Mahidol University, Bangkok 10400, Thailand.

ment of children aged 3-6 years on the hypothesis that parenting styles are the major factor affecting the development of children even if child factors and the family factors such as family economy and family relationship are controlled. The result could be used as a parental guideline to care the children for appropriate development.

Material and Method

A cross-sectional study was conducted in Roi Et Province. The data were collected by two researchers. The inter-rater reliability test during the pilot test showed 95-100 percent agreement in each item. The interviews of the parents and the assessment of child development took place during July 24th to August 31st, 2004. The 360 children aged three to six years old were selected by multi-stage sampling. The research instrument was divided into two parts: Part 1 included the questions developed by the researchers to elicit information regarding children data (sex, number of siblings), family data (mother's and father's educational background, occupation), family type (nuclear, extended), and adequacy of income (adequate and inadequate). Part 1 also included family relationship scale by Mccubin H et al[10](16 items, classify relationship as balanced or unbalanced), and parenting style scale by Baumrind D[6] with three subscales of styles, democratic, authoritative, and permissive parenting style. Subjects were judged to have a particular parenting style if their scores were 75% or more on subscale measuring that style. Subjects with mixed parenting style were those with scores lower than 75% on every subscale or having scores higher than 75% on more than one subscale. Part 2 of the instrument assessed development and nutritional status. The Denver II was used to assess four areas of child development, language, fine motor and adaptation, gross motor or movement, and social. The subjects were classified as normal development or delayed development[11]. Body weight and height were the measures of nutritional status. The subjects were classified as normal or abnormal (below normal or higher than normal) according to the standard curve development (criteria) by Department of Health, Ministry of Public Health[12].

Three experts who were two pediatricians and psychologist assessed content validity of the instrument. Reliability was assessed in 30 parents of preschool children who shared similar characteristics with the study subjects. Cronbach's alpha coefficients for family relationship index and parenting styles scale were 0.75 and 0.85, respectively.

Statistical analysis

Data were analyzed by frequency distribution and percentage to describe the demographic characteristic of the subjects. Multiple logistic regression was used to study the influence of parenting styles on the development of 3-6 years old children with the significant level set at p-value of < 0.05). The analysis was divided into two models, model one with the parenting styles and family factors as independent variables, model two with the parenting styles, family factors and children factors as independent variables. The parameter from the second model reflected the effect of the parenting styles on development controlling for family factors and child factors.

Results

Characteristic of children three to six years old

The finding revealed that 55.6% of the subjects were female, 44.4% were male, 55.6% had two siblings, and 33.3% had one sibling. Sixty-eight percent had normal weight and 27.8% were below normal weight. The number of subjects with normal or delayed development was equal (50%) (Table 1).

Family characteristics

The majority of fathers (57.5%) and mothers (62.2%) received education at elementary school level. About half of the fathers (50.3%) and mothers (53.1%) worked in agriculture. 52.8% of subjects lived in an extended family while 47.2% had a nuclear family. 54.4% had sufficient income for family expenditure, 56.4%

Table 1. Number and percentages of characteristics of children ages 3-6 years (n = 360)

Characteristics	n	%
Sex		
Female	200	55.6
Male	160	44.4
Number of siblings		
1	120	33.3
2	198	55.0
3 or more	42	11.7
$\overline{X}$ = 1.8 SD = 0.7	Min = 1	Max = 4
Nutritional status		
Under normal	100	27.8
Normal	247	68.6
Over normal	13	3.6
Development		
Normal	180	50.0
Delayed development	180	50.0

had a balanced family relationship while 43.6% had an unbalanced relationship (Table 2).

Parenting styles of parent

The finding revealed that 55.3% of parents had a democratic parenting style, 41.4% with mixed parenting style, 1.9% with authoritative and 1.4% with permissive parenting style. Due to the small number of subjects in last two styles, they were excluded from multivariate analysis (n = 348) (Table 3).

Influence of parenting styles on the development of children three to six years old

For the Model I, independent variables were parenting styles and family factors consisting of family type, father and mother's education, occupation, sufficiency of income, and relationships in the family. The results showed that parenting style factor and family factors (mother's education, father's occupation, and relationship in the family) had a significant influence on the development of children three to six years old (p-value < 0.05).

For the Model 2, parenting styles, family factors, and child factors were independent variables. The present study showed that parenting style had a significant influence on the development of children three to six years old (p-value < 0.05). Children raised with mixed parenting style had a 1.9 times higher chance of delayed development compared with children with democratic parenting style. The family factors and child factors that showed significant effect on child development were mother's education, father's occupation, relationship in the family, sex of children, and nutritional status. Children in an extended family had a 2.7 times higher chance of delayed development than children in nuclear family. Children whose mother completed elementary education had a three times higher chance of delayed development than those with mother complete higher education. Children with non-agriculturist father had a 3 times higher chance of delayed development than those with an agriculturist father. Children who lived in an unbalanced family had a 6.9 times higher chance of delayed development than those who lived in a balanced family. Males had a 2.3 times higher chance of delayed development than females and a malnutrition child had a 1.9 times higher chance of delayed development than those with normal nutritional status (Table 4).

Table 2. Number and percentage of demographic characteristics of children's families (n = 360)

Characteristics	n	%
Mothers' education		
Elementary	224	62.2
Higher than elementary	136	37.8
Father's education		
Elementary	207	57.5
Higher than elementary	153	42.5
Mothers' occupation		
Agriculture	191	53.1
Non-agriculture	169	46.9
Fathers' occupation		
Agriculture	181	50.3
Non-agriculture	179	49.7
Type of family		
Nuclear family	170	47.2
Extended family	190	52.8
Sufficiency of income		
Sufficient	196	54.4
Insufficient	164	45.6
Relationship in the family		
Balanced	203	56.4
Unbalanced	157	43.6

Table 3. Number and percentage of parenting style

Parenting style	n (360)	%
Democratic	199	55.3
Mixed	149	41.4
Authoritative	7	1.9
Permissive	5	1.4

Discussion

The present study revealed that the most common parenting style was democratic followed by a mixed parenting style. In model 2 with family factors and children factors controlled, parenting style still had a significant influence on children development. Mixed parenting style had a 1.9 times higher chance of delayed development than those with democratic parenting style. Democratic parents may give love, warmth, use reasoning, and train their children to be self-reliant and self-confident. Thus, the children have a chance to use their own ability to the fullest potential. Moreover, when parents serve the basic needs of the children, they will feel ready to learn what effects better development than those parents who help the children to do everything or are all the time strictness.

These results agree with the findings of Baumrind D, Mussen PH et al and Amy EI et al[6,13,14]

Table 4. Multiple logistic regression analysis between parenting style factors, family factors, child factors and levels of development of children aged three to six years

Factors	Model 1		Model 2	
	β	Ad OR (95% CI)	β	Ad OR (95% CI)
Parenting style factors				
Mixed parenting style [1]	0.5045*	1.66 (1.0162-2.6991)	0.6463*	1.91 (1.1450-3.1811)
Family factors				
Extended family [2]	1.0354*	2.82 (1.7450-4.5457)	1.0026*	2.73 (1.6636-4.4646)
Father's education: Elementary[3]	-0.3666	0.69 (0.4033-1.1912)	-0.3445	0.71 (0.4063-1.2358)
Father's occupation: Non-agriculture[4]	1.1200*	3.06 (1.4152-6.6369)	1.0949*	2.99 (1.3468-6.6327)
Mother's education: Elementary[5]	1.0537*	2.87 (1.6710-4.9228)	1.1009*	3.00 (1.7314-5.2219)
Mother's occupation: Non-agriculture[6]	-0.1758	.84 (0.3824-1.8396)	-0.0477	0.95 (0.4235-2.1465)
Insufficient family income[7]	0.0987	1.10 (0.6663-1.8282)	-0.0259	0.97 (0.5716-1.6611)
Relationship in thefamily: Unbalanced[8]	1.9847*	7.28 (1.5358-34.4801)	1.9339*	6.92 (1.4138-33.8382)
Child Factors				
Male[9]			0.8164*	2.26 (1.3633-3.7542)
Number of siblings: More than one[10]			-0.3710	0.69 (0.4033-1.1806)
Nutritional status: Not normal[11]			0.6542*	1.92 (1.1135-3.3232)
-2 log Likelihood	471.34008		471.34008	
p-value	<0.001		<0.001	
n	348		348	

Note: Development of children : Normal development = 0, Delayed development = 1
* statistical significance at p-value < 0.05
Ad = Adjusted, OR = OddsRatio, β = Coefficient
Number in bracket after the Adjusted OR is 95% Confidence Interval (95% CI)
Number in bracket after each factor is the referencing member 1. Democratic parenting style, 2. Nuclear family, 3. Education higher than elementary, 4. Agriculture occupation, 5. Education higher than elementary, 6. Agriculture occupation, 7. Sufficient income, 8. Balanced family, 9. Female, 10. One child, 11. Normal nutritional status

that showed parents with a democratic parenting style had love, and attention with reason, and the children had a chance to help themselves that made them develop properly.

The family factors and children factors having an influence on child development were mother's education, father's occupation, family type, relationship in the family, sex, and nutritional status. These findings suggested that the most important factor was the mothers' education. Mothers are the ones who mainly take care of the children, so those with a higher education would be more knowledgeable to raise and experience the appropriate learning to the children. This is also the case for the father's occupation. Children who lived with a non-agriculturist father had a higher chance of delayed development than children who lived with the agriculturist father. This might be due to the fact that the non-agriculturist father may have less time to pay close attention and promote learning and development. The findings were consistent with those from the previous studies that found that the mothers' education and the fathers' occupation had an influence on the child development[3,4-8].

For the types of family, the children in an extended family had a higher chance of delayed development than those who lived in a nuclear family. The children growing up in an extended family are surrounded by many relatives who take care of them and help them all the time. As a result, the children do not have a chance to learn and do activities by themselves, so they are likely to have delayed development. Regarding relationship in the family, children raised in an unbalanced family had a higher chance of delayed development than those who lived in a balanced family. Relationship within the family is one of the factors that determine the stability in the family. Living within a family with a good relationship, the children would be showered with love and attention that bring

good development[7,13]. This finding was congruent with the findings of Brown J et al, Lysky MT et al that found that the relationship in the family was associated with child development[9,15].

For the sex and nutritional status of the children, males had a higher chance of delayed development than females. The malnutrition children, mostly underweight, had a higher chance of delayed development than normal weight children. This finding supports the previous findings of Supanvanich S and Bureau of Health Promotion[16,17] that showed that the malnutrition had an effect on children's development as children with malnutrition may have a slower brain and intellectual development than normal child. Therefore, the family should raise their children using democratic parenting style, supporting proper nutrition, and promoting a good family relationship. All of these factors lead to age appropriate development of the children.

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อิทธิพลของรูปแบบการอบรมเลี้ยงดูต่อพัฒนาการเด็กอายุ 3–6 ปี

สุธรรม นันทมงคลชัย, ชุติมา เหง้าสุสิทธิ์, โชคชัย หมั่นแสวงทรัพย์

วัตถุประสงค์: *เพื่อศึกษาอิทธิพลของรูปแบบการอบรมเลี้ยงดูต่อพัฒนาการเด็กอายุ 3–6 ปี*

วัสดุและวิธีการ: *เป็นการสำรวจภาคตัดขวาง เก็บรวบรวมข้อมูลจากเด็กและบิดามารดาในจังหวัดร้อยเอ็ดจำนวน 360 คน เลือกกลุ่มตัวอย่างจากการสุ่มตัวอย่างแบบหลายขั้นตอน เก็บข้อมูลระหว่างวันที่ 24 กรกฎาคม – 31 สิงหาคม พ.ศ. 2547 โดยใช้วิธีการสัมภาษณ์ ประเมินรูปแบบการอบรมเลี้ยงดูและพัฒนาการเด็กด้วยแบบวัดที่พัฒนามาจากแนวคิดของ Baumrind D และ Denver II วิเคราะห์ข้อมูลโดยใช้ความถี่ ร้อยละ และ multiple logistic regression*

ผลการศึกษา: *รูปแบบการอบรมเลี้ยงดูมีอิทธิพลต่อพัฒนาการเด็กอย่างมีนัยสำคัญทางสถิติ (p-value < 0.05) โดยเด็กที่ถูกเลี้ยงดูแบบผสมมีโอกาสที่เด็กจะมีพัฒนาการช้ากว่าวัยเป็น 1.9 เท่าของเด็กที่ถูกเลี้ยงดูแบบประชาธิปไตย นอกจากนั้นปัจจัยด้านครอบครัวและปัจจัยด้านตัวเด็กที่มีอิทธิพลต่อพัฒนาการเด็กอย่างมีนัยสำคัญทางสถิติ (p-value < 0.05) ได้แก่ประเภทครอบครัว ระดับการศึกษามารดา อาชีพบิดา สัมพันธภาพในครอบครัว ภาวะโภชนาการและเพศเด็ก*

สรุป: *รูปแบบการอบรมเลี้ยงดูมีอิทธิพลต่อพัฒนาการเด็กโดยเด็กที่ถูกเลี้ยงดูแบบผสมมีโอกาสที่จะมีพัฒนาการล่าช้ากว่าวัยเป็น 1.9 เท่าของเด็กที่ถูกเลี้ยงดูแบบประชาธิปไตย ดังนั้นบิดามารดาควรเลี้ยงดูเด็กแบบประชาธิปไตยเพื่อนำไปสู่การมีพัฒนาการที่สมวัยต่อไป*