

A Research Review on Type of Child Rearing Practices and Childhood Obesity

Narisara Peungposop¹ and Thasuk Junprasert¹

Parents can have an impact on their children's dietary behavior, habits, and attitudes toward diet through their own parenting practices. Due to rapid increase in the figures of childhood obesity researchers in public health and related sciences have recently turned to concentrate on the causes from the family environment, especially on parental child rearing practices and parental feeding styles. The purpose of this article is to review research studies focusing on the impact of child rearing practices on childhood obesity. 14 articles related to child rearing practices and obesity in children and youth, published in the *Appetite* journal within 10 years were reviewed. The content analysis technique was applied to analyze data. The results indicated that authoritative, supportive, and reasoning practices have a positive relationship with appropriate childhood dietary behavior and following nutritional rules. In addition, these practices also balanced the weight status of the children and youth. Authoritarian, control, and strict practices have adverse outcomes. Overeating, inappropriate diet and obesity were affected by the child rearing practices. Suggestions based on the findings propose that authoritative parenting, using authoritative, supportive and reasoning behavior, is the desirable for child rearing practice to inculcate childhood dietary behavior and normal weight status of children.

Keywords: child rearing practice, childhood obesity, research review

The rapid increase of child obesity in both developed and developing countries has driven researchers to focus the study of family environment. Family environment includes parents' child rearing practices which involve children's food consumption behavior (Hecker, Martin, & Martin, 1996). It is accepted by the medical scholars that the main factor of obesity prevention in children is not medical practitioners, but it should be the responsibility of children and family members, as well as the children's surrounding environment (Jeffrey, Catharyn, & Vivica, 2007). The effective short-term approach to promote the prevention and control of overnutrition in children is family participation (Jeffrey et al., 2007) because children's mental and physical health depends highly on how they are brought up (Hunchangsinh, 2000; Phupaiboon, 1999). Family is the first agent of socialization, and the important persons who affect a child's fundamental behaviors, personality and physical health are the parents or caregivers (Lee & Tinsley, 1998). Previous researches revealed that parental influence on child's eating behavior and food intake is also the important for children's overnutrition (Birch & Fisher, 2000; Blissette & Haycraft, 2008; Fisher & Birch, 1999; Golan, 2006; Hecker et al, 1996). Due to the fact that parents or caregivers allow children to learn and model their behavior, children often imitate the behavior of the people who are the closest to them (Lee & Tinsley, 1998). Child's rearing is considered continual interactions that happen throughout children's childhood (Sucaromana, Choochom, & Tongpukdee, 1995) and this process will form a child's individual behavior and personality (Suwannatat & Bhanthumnavin, 1978). Parents and caregivers also play an important role in development of children's eating habit through feeding styles and child rearing practices (Mitchell, Brennan, Hayes & Miles, 2009). For instance, the use of non-directive control strategies was related to children's compliance whereas demand and threats were negatively related to children's compliance and eating behavior (Lee & Tinsley, 1998). Also, parents' perception influence a child's eating habits, and attitude toward foods. If parents perceive that their child's weight is

¹Lecturer, Behavioral Science Research Institute, Srinakharinwirot University, Bangkok, Thailand

a problem, they are more likely to modify environment surrounding children and their children's lifestyle (Towns & D'Aurie, 2009).

The study of child rearing practices has long been investigated in field of behavioral sciences. The issue is still popular and noteworthy for further research and study, especially among the researchers in psychosocial sciences who apply the issue of child rearing practices to human behaviors such as the awareness of environment, work, intellectual developments, educational achievement, self-discipline and responsibility, and morality. Based on previous literature review, there are a few studies that investigate the relationship between child rearing practices and children's obesity in Thailand. The related publications were found, namely, Pornpojamarn (2003), which reveals that controlling parenting has positive relationship with obesity in children at the 0.05 significance level. It comparatively complies with the findings shown in Yamborisut's study (2005), in which children whose mothers control the quantity and high-calorie food consumption are likely to be more at risk of obesity comparing to the children whose mothers do not control the quantity and high-calorie food consumption at the 0.05 significance level. In addition, Peungposop (2010) found that the inappropriate dietary behavior of parents or caregivers is one of the factors influencing children's overnutrition. This findings implied that children whose parents who acting as the role models for a healthy lifestyle have lower chance to be affected by overnutrition, comparing to the children whose parents fail to be the role models for a healthy lifestyle. A few researches imply that there is a gap in knowledge in terms of child rearing practice and childhood obesity. This is why these issues should be reviewed. In Social sciences, the concept of parents as role models is considered an indirect child rearing practice, which is a part of primary socialization that influences a child's personality, moral values, attitudes, motivations and behaviors (Pisarnpong, 2004).

The purpose of this article is to review researches about the relationship between child rearing practices and obesity in children, in order to form the body of knowledge that can indicate which types of child rearing practices caused the risk of obesity in children. The findings based on this literature review would be utilized as the fundamental information to further the ramification of advance research in the future, for instance, the experimental study on the development of parents' child rearing skills and their influences on children's health and nutrition.

Materials and methods

The research review is limited to the literature about the impact of child rearing practices on childhood obesity. The search for empirical articles was purposive only the articles published in the "Appetite" journal within 10 years since 2000-2010. The selection of this journal is because of aim and scope of this journal that emphasize in behavioral nutrition and the cultural influences on choices and intakes of foods and drinks. It covers normal and disordered eating and drinking, dietary attitudes and practices and all aspects of the bases of human behaviour toward food.

The electronic databases used for the literature search is ScienceDirect. The use of this database was considered sufficient and reliable because it is a leading full-text scientific database offering journal articles and book chapters from more than 2,500 peer-reviewed journals and more than 11,000 books. The keyword of this literature review was "parenting style and child obesity" and "child rearing practice and child obesity" The search yielded a

total of 30 articles. Out of these, 14 articles related to child rearing practices and obesity in children and youth, were reviewed. For data analysis, the content analysis was applied to analyze data.

Results

14 articles related to child rearing practices and obesity in children and youth were reviewed. The characteristics of articles were presented in table 1. The results showed that nearly 30% of them published in the year of 2009. Most of them (85.7%) were cross-sectional quantitative research. Most studies aimed to investigate the type of parenting practices or feeding strategies on children's dietary pattern or food preference or weight of children (71.4%). Almost an half (42.9%) of them collected data from parents or caregiver as participants.

Table 1

Characteristics of articles

Characteristics		Frequency	%
Year of publishing	2003	1	7.1
	2005	1	7.1
	2006	2	14.3
	2007	1	7.1
	2008	3	21.5
	2009	4	28.6
	2010	2	14.3
Type of research	Cross-sectional quantitative research	12	85.8
	Longitudinal quantitative study	1	7.1
	Experimental research	1	7.1
Objective of the study	To investigate type of parenting practices/feeding strategies/feeding practices on children's diet/dietary pattern/food preference/weight	10	71.4
	To investigate affect of parenting style on children food choice pattern/weight/weight-related behaviour	2	14.3
	To investigate the association between parenting style, parental feeding practices and child weight	2	14.3
Participant	Parents/Caregivers	6	42.9
	Children	3	21.4
	Parents/Caregivers and children	3	21.4
	Adolescents	2	14.3

Note. N =14

The measurement of type of child rearing practices and the type of child rearing practices were shown in table 2 and table 3 respectively. The review of child rearing practices was found that there were the different measurements of child rearing practices. It can be measured either by parental or caregiver feeding practices and parental or caregiver style. The results showed that 71.4% of them studied child rearing practices focusing on parental or caregivers feeding practices, which was assessed and measured by questionnaires. Items in questionnaires were developed to examine monitoring, pressure to eat, and restriction. Besides feeding practices, *feeding strategies* (modelling, monitoring, child control, restriction, pressure, rewarding), *feeding behavior* (monitoring, using food to regulate child's emotion, using food as reward, child control over feeding, teaching about nutrition, encouraging balance and variety, restrict, and modelling), *control practices* (covert, overt, and pressure), and *feeding dimension* (supportiveness, and coerciveness) were the measurements of parental or caregivers feeding practices. Regarding to the dimension of parental or caregiver style, there were different dimensions to measure based on several researchers' concept. The results also showed that the dimensions of parental styles were able to divide into two polar; reasoning and permissive style and strict and control style.

Table 2

The measurement of type of child rearing practices

The measurement of type of child rearing practices	Frequency	%
Measured by parental or caregiver feeding practices	9	71.4
Measured by parental or caregiver style	5	28.6
Total (N=14)	14	

Table 3

Type of child rearing practices

	Type of child rearing practices	Frequency	%
Parental/ caregiver feeding practices	Parental feeding practices (monitoring, pressure to eat, restriction)	3	33.4
	Parental feeding strategies (modelling, monitoring, child control, restriction, pressure, rewarding)	2	22.2
	Parental feeding behavior (monitoring, using food to regulate child's emotion, using food as reward, child control over feeding, teaching about nutrition, encouraging balance and variety, restrict, modelling)	2	22.2
	Parental control practices (covert, overt, pressure)	1	11.1
	Parental feeding dimension (supportiveness, coerciveness)	1	11.1
	Total	9	100.0

Table 3

Type of child rearing practices (continued)

Type of child rearing practices		Frequency	%
Parental/ caregiver style	Dimension of involvement and Strictness (authoritative, authoritarian, indulgent, neglectful) based on Lamborn, Tay, Melanie, and Glade (1991) and Steinberg, Elmen, and Mounts (1989)	1	20.0
	Dimension of responsiveness and demandingness (authoritative, authoritarian, permissive, neglectful) based on Baumrind (1971) and Maccoby (2000)	1	20.0
	Dimension of reasoning and autonomy granting (authoritative, authoritarian, permissive) based on Robinson, Kiernan, Mathson, and Haydal (2001)	1	20.0
	Dimension of demandingness and responsiveness (authoritative, authoritarian, indulgent, uninvolved) based on Hughes, Power, Fisher, Mueller, and Nicklas (2005)	1	20.0
	Not identify the exactly dimension but items of feeding style were develop to examine authoritarian and authoritative feeding based on Hughes et al. (2005)	1	20.0
Total		5	100.0

The findings to answer what type of child rearing practice affects childhood's obesity were divided into 2 parental practices: authoritative (love, warmth, and reasoning) and authoritarian (control and restriction). The results were summarized in table 4 and the explanation was described below.

Table 4

Type of child rearing and child's weight

Child's Weight	Type of child rearing	
	Parenting style	Parenting feeding practice
Normal	Authoritative	Well-balance between permissive and restrictive
Obesity	Authoritarian and control	Pressure and restriction Control of quantity and type of food

Children's appropriate dietary behavior and weight related to authoritative parental practice. Three articles illustrated several interesting points concerning the relationship between parents' characteristics, dietary behavior-related parenting practices, and children's weight. The authoritative parents employing the permissive dietary behavior-related parenting practices and encouraging their children to have a well-balanced and diverse

dietary caused the children to have healthier food preference and normal body weight. (Dara, Blandine de Lauzon-Guillain, & Shayla, 2009; Heather, Theresa, Sheryl, & Miriam, 2005; Stef, Johannes, Hein de Vries, & Rutger, 2003)

Children's undesirable dietary behavior and weight related to authoritarian parental practice. Several researches investigated the relationship between authoritarian parental style (pressure, silent treatment, hostility, imposition, aggressive verbal abuse), and control parental style (intensive control or using negative reinforce to take away a child's preference), and dietary behavior and weight. For instance, an interesting study (Jerica, Melanie, Katie, & Dianne, 2010) aimed to determine whether and how parents' characteristics cause children's dietary behavior, physical activity and weight. This research was conducted with 2,516 American teenagers and detects a positive relationship between authoritarian mothers and weight of teenagers. It implies that teenagers with authoritarian mothers tend to have more weight than teenagers with authoritative mothers, while teenagers with uninvolved fathers had less physical activity than those with involved father. Such findings are in accordance with the study of Heather et al. (2005) who investigated the feeding styles of 231 children, and found that children's diets vary according to authoritarian feeding style. Moreover, another study focused on the interest on the food-related parental practices, and the role of parents in dietary behavior of children aged 4-7 years old in Britain (Kerry, June, & Claus, 2008). This study discovered the positive relationship between the feeding style, in which children were pressured to eat more, and the consumption of unhealthy snacks. In other words, children who were forced by their parents to eat more tend to eat more unhealthy food. The study also detected negative relationship between such parental pressure and the consumption of fruits and vegetables.

In terms of controlling parenting style, the findings from the study done by Jessica and Melanie (2009) revealed a positive relationship between authoritative feeding style and children's unconstrained eating behavior among 247 children, aged 4-8 years. In addition, the authoritarian feeding style also has indirect influence on children's body weight caused by unconstrained dietary behavior.

Discussion

Based on the findings, five issues were drawn for discussion. Firstly, the review of child rearing practices found that there were the different measurements of child rearing practices. It can be measured either by parental or caregiver feeding practices and parental or caregiver style. The distinction between the terms of parental feeding practices and parental style should be described. Parenting practices are related to, but different from parenting style in terms of parental practices describe the behavioral strategies that parents use to socialize their children. It can be implied that parenting practices are embedded within the wider context of the emotional climate of parenting style, are less trait-like, and more responsive to contexts (Erin, Sheryl, Hughes, & Raymond, 2010). As for parenting style, it is defined as the parents' attitudes and the beliefs they hold about how to rear their children and how they interact with children (Pisarnpong, 2004). According to Baumrind's perspective (1971), parenting style is categorized based on 2 dimensions of parental behavior: responsiveness or nurturance and demandingness or control of the child. Style and practice are related concepts. Practices may reflect to trait or style of parents. For example, authoritative parent style tends to act praising the child, negotiating with the child. Unlike authoritative parent, authoritarian parent seems to act with punishment and coercion. Restriction was paradoxically associated with increase intake and preference for the restricted food, overeating, which lead to weigh

gain (Fisher & Birch, 1999). Also, higher control over food intake is associated with lower preference for and intake of these foods (Jessica et al., 2009). In this way, it seems that parents try to influence child-eating behaviour, which is called parent-centered techniques.

Secondly, a child's eating behavior responds to the surrounding external stimuli. An environmental stimulus that influences the primary state of a child's life is the experience of being fed by parents. Feeding style is the mechanism that helps shaping up a child's eating preferences and style. Birch & Fisher (1995) combine food-related parenting practices to multiple dimensions of parenting practices and behaviors, and propose 3 different categories. Authoritarian or strict refers to a child's strictly controlled diet without considering the child's personal demands or preferences. Permissive or neglectful refers to the way parents indulge their child by allowing them to consume any type of food in whatever quantity. Authoritative refers to the parenting practice, in which strictness and indulgence are well-balanced, for example; encouraging children to eat healthy food, but allow them to choose the food of their preferences at the same time.

Thirdly, Parents have significant role in children's overnutrition and weight, while the inappropriate feeding style such as the restriction to access certain types of food that children like is also one of the factors obstructing the ability to control their diets, which can eventually result in the increase of body weight (Duangchan, Dusadee, Ungsinun, & Chittiwat, 2010). Birch (1999) reviewed the researches involving aspects of connection between parental control practices and children's diets, and concluded that parental control practices in a child's diet, for instance, the prohibition or restriction of certain types of food may cause the child to have the even stronger craving for food. In addition, several experimental researches pointed out that not only parental control practices diminish a child's ability to control his/her diet, but they also increase the child's desire to eat the food that is prohibited by the parents (Birch & Fisher, 1995; Johnson & Birch, 1994). Aside from controlled diet, rewarding children with foods, or pressuring them to eat can both have negative effects on their dietary behavior as well. For example, giving children a snack or candy as a reward after they ate the food they don't like can increase the desire for candy and decrease the preference for healthy food that parents want them to eat (Newman & Taylor, 1992). There are some researches that investigate the causes of children's dislike of certain types of food, and the findings reveal that the hate or refusal of a particular type of food is caused by the experienced when they are pressured or forced by their parents to eat that food (Batsell, Brown, Ansfield, & Paschall, 2002) As a consequence, such control parental practices can result in children's dislike or refusal of healthy food.

In addition, for the findings that controlling parental practices cause inappropriate dietary behavior and high weight, it illustrates how the acts of authoritarian parents who attempt to pressure, restrict and control their children's diets instead of considering their preferences can drive the children to consume more unhealthy food, or the food they are prohibited from eating, as well as the lack of self-constraint and control in their dietary behaviors. Blissett and Haycraft (2008) advocated the connection between authoritarian parenting style and parents who are uninvolved and less supportive. The way parents control and pressure children to eat even when they're not hungry can lead to children's unhealthy diets and bad choices of food. Authoritarian practices are also closely relative to children's preferences for the food they are restricted from and increasing body weight (Fisher & Birch, 1999). As well as the liking for the food that they think taste good, despite its lack of healthy nutritional value. Children who are pressured by their parents to consume healthy food tend to have low preference for the food they are told to eat. Additionally, children whose diets are

overly controlled tend to consume more, for parents' restrictions obstruct their ability to control their own dietary behavior. Consequentially, the side effects of such parental practices can result in the children's inability to control hunger, which eventually can become the cause of overweight and obesity in the future (Jessica et al., 2009).

Finally, another interesting issue is how the food-related child rearing practices can reflect the parents' characteristics. Some of the review researches cited in this article leads to an interesting finding that parents' feeding styles are closely related to their personal characteristics. For instance, the authoritative parents are most likely able to balance their concerns for their children's health by choosing the appropriate food while still considering children's personal preferences. The authoritarian parents, on the other hand, control, force and specifically choose the food they want their children to eat without considering the children's personal preferences. The neglect or uninvolved parents tend to give children the freedom of choice, allowing children to choose their own food without providing any guidance in quality or quantity control (Laura, Tay, Melanie, & Glad, 2008). As the result, parents' different characteristics can be used as a factor to predict children's dietary behavior and weight.

Limitation of the study

The limitation of this study was the scope of literature review. The research review was limited to the articles published in the *Appetite* journal within 10 years since 2000-2010.

Conclusion and Suggestion

One of risk factors for childhood overweight and obesity is an unhealthy diet. Parents and caregivers play an important role in development of children's eating habit through feeding styles and child rearing practices. For instance, parents control the availability of and exposure to food, act as role model, can provide their child with support, punishment, and use specific parenting practices (Golan & Crow, 2004; Jessica et al., 2009).

Based on this finding, one of the significant evidences to encourage parents, caregivers, public healthcare officers as well as other involving personals to employ permissive and democratic parenting style, for it offers well-balanced child rearing practices that also incorporate the use of reason to enhance better understanding and reconciliation between children and their caregivers, which can result in the children's pleasant and desirable behaviors. The policy suggestions proposed in this literature review resonate directly to the promotion of obesity prevention in children policies. It is another confirmation that the preferable child rearing practices should be moderately authoritative, in which parents are required to be highly participatory and responsible. Child rearing practices should employ the right balance between democratic approach, where children are loved and supported, and the use of reason to enhance children's understanding and acceptance.

References

- Batsell, W., Brown, A., Ansfield, M., & Paschall, G. (2002). "You will eat all of that": A retrospective analysis of forced consumption episodes. *Appetite*, 38, 211-219.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*

- Monographs*, 2(4), 1-103.
- Birch, L. L. (1999). Development of food preference. *Annual Review of Nutrition*, 19, 41-62.
- Birch, L. L., & Fisher, J. O. (1995). Appetite and eating behavior in children. In G.E. Gaull (Ed.), *The pediatric clinics of North America: Pediatric nutrition* (pp.931-953). Philadelphia, PA: W. B. Saunders.
- Birch, L. L., & Fisher, J. O. (2000). Mothers' child-feeding practices influence daughters' eating and weight. *American Journal of Clinical Nutrition*, 71, 1054-1061.
- Blissett, J., & Haycraft, E. (2008). Are parenting style and controlling feeding practices related?. *Appetite*, 50, 477-485.
- Dara, R. M., Blandine de Lauzon-Guillain, & Shayla, C. H. (2009). Child and parent characteristics related to parental feeding practices. A cross-cultural examination in the US and France. *Appetite*, 52, 89-95.
- Duangchan, P., Dusadee, Y., Ann, M., Ungsinun, I., & Chittiwat, S. (2010). Interventions for healthy eating and physical activity among obese elementary schoolchildren: Observing changes of the combined effects of behavioral models. *The Journal Science*, 5(1), 46-59.
- Erin, H, Sheryl, O., Hughes, P. G., & Raymond, R. H. (2010). Parent behavior and child weight status among a diverse group of underserved rural families. *Appetite*, 54, 369-377.
- Fisher, J. O., & Birch, L. L. (1999). Restricting access to food and children's eating. *Appetite*, 32, 405-419.
- Golan, M. (2006). Parents as agents of change in childhood obesity: From research to practice. *International journal of pediatric obesity*, 1(2), 66-76.
- Golan, M., & Crow, S. (2004). Parents are key players in the prevention of weight-related problem. *Nutrition reviews*, 62, 39-50.
- Heather, P., Theresa, A. N., Sheryl, O. H., & Miriam, M. (2005). The benefits of authoritative feeding style: Caregiver feeding styles and children's food consumption patterns. *Appetite*, 44, 243-249.
- Hecker, L., Martin, D., & Martin, M. (1996). Family factors in Childhood obesity. *American Journal of Family Therapy*, 14, 247-253.
- Hughes, S. O., Power, T. G., Fisher, J. O., Mueller, S., & Nicklas, T. A. (2005). Revisiting a neglected construct: Parenting styles in a child-feeding context. *Appetite*, 44, 83-92.
- Hunchangsith, B. (2000). เศรษฐศาสตร์ทรัพยากรมนุษย์ [Economics and human resource]. Bangkok: OS Printing House.
- Jeffrey, P. K., Catharyn, T. L., & Vivica, A. (2007). *Preventing childhood obesity: Health in the Balance*. Retrieved November 30, 2007, from <http://www.nap.edu/catalog/11015.html>
- Jerica, M. B., Melanie, W., Katie, L., & Dianne, N. S. (2010). Parenting Style as a predictor of adolescent weight and weight-related behavior. *Journal of Adolescent Health*, 46, 331-338.
- Jessica, L. J., & Melanie, J. Z. (2009). Parent feeding restriction and child weight: The mediating Role of child disinhibited eating and the moderating role of the parenting context. *Appetite*, 52, 726-734.
- Jessica, S. G., Stef, P. J. K., Annette, S., Pieter, C. D., Alexandra, G., Nanne, K. de Vries, & Carel, T. (2009). Diet-related restrictive parenting practices. Impact on dietary intake of 2-year-old children and interaction with characteristics. *Appetite*, 52, 423-429.
- Johnson, S. L., & Birch, L. L. (1994). Parent's and children's adiposity and eating style. *Pediatric*, 94, 653-661.
- Kerry, A. B., June, O., & Claus, V. (2008). The role of parental control practices in explaining children's diet and BMI. *Appetite*, 50, 252-259.

- Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development*, 62, 1049-1065.
- Laura, H. T., Tay, S. K., Melanie, C. P., & Glade, L. T. (2008). Parental feeding practices predict authoritative, authoritarian, and permissive parenting styles. *Journal of American Diet Association*, 108, 1154-1161.
- Lee, N. B., & Tinsley, B. (1998). Patterns of parental socialization of the preventive health behavior of young Mexican origin children. *Journal of Applied Developmental Psychology*, 19(4), 503-525.
- Maccoby, E. E. (2000). Parenting and its effects on children: On reading and misreading behavior genetics. *Annual Review of Psychology*, 51, 1-27.
- Mitchell, S., Brennan, L., Hayes, L., & Miles, C. L. (2009). Maternal psychological predictors of controlling parental feeding styles and practice. *Appetite*, 53, 384-389.
- Newman, J., & Taylor, A. (1992). Effect of a means-contingency on young children's food preference. *Journal of Experimental Child Psychology*, 64, 200-216.
- Peungposop, N., Kua, W., & Gerald, J. K. (2010). How do non genetic factors affect overweight children in Bangkok?. *Journal of Population and Social Studies*, 18, 111-128.
- Phupaiboon, R. (1999). ครอบครัว สถาบันสังคมพื้นฐานคุณภาพเด็กและเยาวชนไทย [Family Basic Institute for Thai children and youth's quality]. วารสารการส่งเสริมสุขภาพและอนามัยสิ่งแวดล้อม [Thailand Journal of Health Promotion and Environmental], 22(4), 18-25.
- Pisarnpong, W. (2004). การถ่ายทอดทางสังคมกับพัฒนาการของมนุษย์ (พิมพ์ครั้งที่ 3) [Socialization and Human Development (3rd ed.)]. Bangkok: Behavioral Science Research Institute, Srinakharinwirot University.
- Pornpojamarn, P. (2003). *The influence of parental child rearing practices on childhood obesity in primary schools in urban Bangkok* (Unpublished master's thesis). Mahidol University, Thailand.
- Robinson, T. N., Kiernan, M., Matheson, D. M., & Haydal, K. F. (2001). Is parental control over children's eating associated with childhood obesity? Results from a population-based sample of third graders. *Obesity research*, 9, 306-312.
- Stef, P. J., Johannes, B., Hein de Vries, & Rutger, C. M. E. (2003). Parenting style and adolescent fruit consumption. *Appetite*, 41, 43-50.
- Steinberg, L., Elmen, J., & Mounts, N. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child Development*, 60, 1424-1436.
- Sucaromana, A., Choochom, O., & Tongpukdee, T. (1995). การศึกษาความสัมพันธ์ระหว่างการอบรมเลี้ยงดู ความคิดสร้างสรรค์และพฤติกรรมกล้าแสดงออก [A study of the relationships among child rearing practices, creative thinking, and assertive behaviour] (Report No.49). Bangkok, Thailand: Behavioral Science Research Institute, Srinakharinwirot University, Thailand.
- Suwannatat, J., & Bhanthumnavin, D. (1978). พฤติกรรมศาสตร์ เล่ม 1 พื้นฐานความเข้าใจทางจิตวิทยา [Behavioral Science Part I: Foundation for Understanding to Psychology]. Bangkok: Thaiwattanapanit.
- Towns, N., & D'Aurie, J. (2009). Parental perceptions of their child's overweight: An integrative review of the literature. *Journal of pediatric nursing*, 24(2), 115-130.
- Yamborisut, U. (2005). *Comparative study on factors associated with obesity in children from mothers with different nutritional status* (Doctoral dissertation). Mahidol University, Thailand.