

How Parenting Affects Children's Futures: Empirical Study in Japan^{*}

Kazuo Nishimura

Kobe University, Hyogo Prefecture, Japan

Santa Fe Institute, New Mexico, USA

RIETI, Tokyo, Japan

Tadashi Yagi

Doshisha University, Kyoto Prefecture, Japan

In this study, we conducted a survey on Japanese adults about the way they were raised in their childhood and analyzed the influence of parenting method on children's futures. Using the major factor method, we conducted principal factor analysis of the responses from a 20-question survey of Japanese adults to assess the parent-child relationship during childhood. Four factors ("interest", "trust", "norm", and "independence") are derived. We added "time spent together" with parent(s) and parent's "strict discipline" to the indices and classified the parenting methods into five types: (1) supportive, (2) tiger, (3) indulgent, (4) uninvolved, and (5) abusive. Then we compared the average earnings, sense of well-being, and educational career of the respondents classified according to the parenting type. Among the five types, the "supportive" type showed the highest achievement in all the three items, and the "abusive" type the lowest in all the items.

Keywords: parenting, supportive, tiger mother, income, sense of well-being

Introduction

The quality of parenting determines how children develop bonds with their parents and how they relate with society in the future. Different parenting results in different feelings of self-esteem, normative consciousness, and self-control in children, in addition to causing different effects on education. Since early times, there have been many discussions on parenting methods, among which the theory of an American developmental psychologist Diana Baumrind (1967, 1968) is well known for the classification of parenting methods. In her work, Baumrind analyzed the parenting methods by classifying them into three types: authoritative, authoritarian, and permissive. She concluded that among the three types, authoritative parenting is the most effective because authoritative parents control their children by the rules and have high expectations, but adopt an open and democratic attitude to their children's reasonable needs and desires and encourage their independence. Later, Maccoby and Martin (1983) added a fourth type of parenting style, namely, the uninvolved type, to Baumrind's three types.

^{*} This study, conducted as part of the "Fundamental Research for Sustainable Economic Growth in Japan" Project of the Research Institute of Economy, Trade, and Industry, Tokyo, Japan, was supported by the Japan Society for the Promotion of Science (JSPS) Grant-in-Aid for Scientific Research (S) No. 15H05729 and JSPS Grant-in-Aid for Scientific Research (B) No. 16H03598.

Kazuo Nishimura, Professor, The Research Institute for Economics and Business Administration, Kobe University; External Professor, The Santa Fe Institute; Faculty Fellow, The Research Institute of Economy, Trade and Industry.

Tadashi Yagi, Professor, Department of Economics, Doshisha University.

Recent studies on the impact of parenting methods on children's academic performance include the study by Kim, Wang, Orozco-Lapray, Shen, and Murtuza (2013) on 444 Chinese-American families. They used four positive (warmth, inductive reasoning, monitor, democracy) and four negative (hostility, punitive, psychological control, shaming) parenting dimensions to characterize four types of parenting: "tiger", supportive, harsh, and easygoing. The term "tiger" used to describe "strict" parenting here originates from Chua's (2011) controversial book, in which she describes the typical Chinese way of strict and highly controlling mothering in contrast to Western models and refers to strict Chinese mothers including herself as "tiger" mothers, believing that strict parenting leads to children's future success.

Kim et al. (2013) found that the supportive type was the most effective in terms of children's educational performance and mental stability, followed by easygoing, tiger, and harsh, being the least effective. Kim et al. (2013) thus empirically denied the superiority of tiger mothering claimed by Chua.

There is an accumulation of studies on parenting and its effects that precede the study by Kim et al. (2013). Here, we focus on relatively recent works related to our study to give an outline of the trend in parenting studies. Ge, Best, Conger, and Simons (1996) investigated the types of parenting that would induce adolescent depression and pointed out that the disintegration of trustful relationships between parents and children is a critical factor. Meanwhile, Barber (1996) also analyzed the traits of the type of parenting that causes adolescent depression and explained that psychological and behavioral control is positively associated with depression and behavioral delinquency. Fuligni, Tseng, and Lam (1999) examined the attitudes toward family obligations among American high schoolers of different ethnic backgrounds. They found that positive familial relationships are associated with greater academic motivation.

Parenting methods also affect children's normative consciousness. In recent years, many authors have insisted that interpersonal trust promotes economic performance in a variety of fields (Zak, 2012). Nishimura, Hirata, Yagi, and Urasaka (2016) statistically demonstrated that ethical workers are highly appreciated in the Japanese labor market and presented the supporting evidence for their claim that the formation of ethical consciousness among employees nourishes trusting intra-company relationships and enhances corporate productivity.

Then, what are the effects of the parenting practices of the Japanese, who are also Asians like the Chinese? This study examines the relationship between the typical Japanese parenting types and their effects, based on data of 10,000 Japanese adults who participated in the survey. Specifically, we elucidate the influence of Japanese parenting styles on children's earnings after employment, sense of well-being, and educational career. For this purpose, we first define the parenting types and then examine the earnings, sense of well-being, and educational career of the respondents that fall under the respective categories.

Section two overviews this study, while section three uses factor analysis (main factor mathematical method) to extract independent factors associated with parenting methods and sense of well-being. Section four categorizes the parenting methods as supportive, tiger, indulgent, uninvolved, or abusive, and then analyzes the impact of the respective parenting methods on children's earnings after employment, sense of well-being and educational career.

Survey Overview

We carried out an online survey in January 2016 with the assistance of a marketing research service provider (Rakuten Research, Inc., Tokyo, Japan), as part of the "Fundamental Research for Sustainable Economic

Growth in Japan” project of the Research Institute of Economy, Trade, and Industry (Tokyo, Japan). From approximately 2.3 million Japanese individuals registered to the database of the research service provider, 338,707 were chosen by random sampling and invited to complete the questionnaire. We obtained valid responses from 10,000 individuals. The descriptive statistics and distribution of the attributes and other primary variables by sex are shown below.

Table 1

Marital Status

	Males (%)	Females (%)
Single	38.9	27.5
Married	54.9	62.3
Divorced or widowed	6.2	10.2
Total	100.0	100.0

Table 2

Income Distribution Statistics

	Age	Taxable Household Income, Males (1,000 JPY) <i>n</i> = 5,000	Taxable Household Income, Females (1,000 JPY) <i>n</i> = 5,000	Taxable Personal Income, Males (1,000 JPY) <i>n</i> = 5,000	Taxable Personal Income, Females (1,000 JPY) <i>n</i> = 5,000
Average	45.85	5,472.0	5,468.2	4,147.2	1,840.2
Median	46.00	5,000.0	5,000.0	3,000.0	1,000.0
Standard Deviation	13.18	3,532.2	3,509.1	3,217.8	2,229.6
Minimum	23	0	0	0	0
Maximum	69	21,000	21,000	21,000	21,000

Note. JPY: Japanese yen.

Table 3

Respondents With or Without Children

	Males (%)	Females (%)
One or more children	49.8	54.9
No children	50.2	45.1

Table 4

Educational Career

	Males (%)	Males (cumulative %)	Females (%)	Females (cumulative %)
Middle school (9th grade)	2.3	2.3	1.7	1.7
High school (12th grade)	28.0	30.3	30.4	32.2
Post-secondary vocational school	9.8	40.1	12.7	44.9
2-year college, technical college	5.3	45.4	21.6	66.5
University (4-year college)	47.5	92.9	30.8	97.3
Graduate school	7.1	100.0	2.7	100.0
Total	100.0		100.0	

The sex distribution of the results were even with 5,000 male and 5,000 female samples. Table 1 shows the descriptive statistics: 54.9% of males and 62.3% of females are married. As shown in Table 2, the difference in the average pretax household income was not noteworthy between males and females, but females had a much lower pretax personal labor income than males. Table 3 shows the proportions of respondents with children. Regardless of gender, approximately half of the respondents had at least one child. Table 4 shows the distribution of the educational career: 54.6% of males and 33.5% of females completed a university (4-year college) or graduate school.

Parenting Style of the Respondents' Parents

Factors that Characterize Parenting

Table 5

Factors that Characterize Parenting (Identified by Factor Analysis With Quartimax Rotation)

	Disinterest/Interest	Trust	Norm	Independence
I often felt no one understood me.	-0.792	-0.146	0.052	-0.03
I did not know if I could count on my parents.	-0.739	-0.149	-0.006	0.082
I felt that my family was not interested in me.	-0.728	-0.155	-0.058	-0.092
I tended to be psychologically unstable at home.	-0.702	0.05	0.054	-0.109
My parents did not understand many of my past experiences.	-0.686	-0.195	0.105	0.09
Talking about my issues with my parents seemed shameful or stupid.	-0.382	0.215	0.077	0.047
When my parents had a problem, I would not be involved in solving it.	-0.36	-0.059	0.041	0.127
I wanted to hear my parents' opinion when I had a problem.	0.254	0.638	-0.02	-0.126
My parents noticed when I failed at something.	0.279	0.631	0.045	0.008
When my parents noticed that I was worried about something, they asked me about it.	0.308	0.604	0.019	-0.105
I trusted my parents.	0.548	0.492	0.018	0.247
My parents trusted me.	0.506	0.447	-0.012	0.37
My parents respected my opinions.	0.466	0.441	-0.2	0.387
I followed my parents' advice concerning choice of job, school, etc.	-0.021	0.434	0.101	-0.231
My parents expected much of me.	-0.014	0.361	0.134	0.119
My parents rebuked me when I did not follow their instructions.	-0.084	0.094	0.842	0.041
My parents rebuked me when I talked back.	-0.223	0.041	0.773	-0.053
My parents reprimanded me when I did something bad.	0.113	0.148	0.687	0.197
My parents reprimanded me when I was reluctant to obey them.	-0.357	0.062	0.613	-0.122
I would try to solve problems by myself.	-0.014	-0.072	0.072	0.52

Using a 20-item questionnaire (see Table 5), we asked the respondents about their relationships with their parents during childhood and adolescence. The questionnaire was developed based on previous work on parent and peer attachment (Armsden & Greenberg, 1987). Responses were rated using a five-point Likert scale: 1–Strongly disagree, 2–Disagree, 3–Neither agree nor disagree, 4–Agree, and 5–Strongly agree. Responses were analyzed by factor analysis (main factor mathematical method) to identify key dimensions. Factors with eigenvalues equal or greater than unity were extracted. Four factors were identified. We interpreted the four extracted factors by looking at the items of the questionnaire strongly correlated with them. As shown below, the first factor was interpreted as “disinterest (interest)”, the second as “trust”, the third as “norm”, and the fourth as “independence”. The negative coefficient values of “disinterest” here can be interpreted as “interest”.

Table 5 summarizes the results of the factor analysis. Interest (Factor 1), is an indicator of parental knowledge and understanding of children's situations. Trust (Factor 2) denotes parents' trust and affection toward their children. Norm (Factor 3) relates to how clearly parents explained to their children what they must not do. Independence (Factor 4) represents to what extent children made their own decisions.

In addition to above, the survey participants were asked to rate the following items: (i) Parents or familiar adults read books to me when I was a child, (ii) Parents or familiar adults taught me school subjects when I was a child, (iii) My family went out to recreate together when I was a child, and (iv) My parents were at home for dinner when I was a child. Each item was rated using a four-point Likert scale: 1–Never, 2–Seldom, 3–Sometimes, and 4–Frequently. Analysis of the responses using factor analysis (main factor mathematical method) suggests that “time spent together” is a key underlying factor. The participants were also asked to respond to the following items: (i) Familiar adults other than parents scolded me when I was a child, (ii) My parents physically punished me when I was a child, and (iii) My parents scolded me when I was a child. Respondents rated these items using a five-point scale: 1–Strongly disagree, 2–Disagree, 3–Neither agree nor disagree, 4–Agree, and 5–Strongly agree. According to the factor analysis model (main factor mathematical model) of the responses, “experience of being scolded” is a key underlying factor. Based on these findings, a total of six factors—interest, trust, norm, independence, time spent together, and experience of being scolded—were used in the subsequent analysis to characterize parenting.

Factors that Characterize Sense of Well-being

To analyze the factors that characterize sense of well-being, our survey used the Japanese translation of the Oxford Happiness Questionnaire (Hills & Michael, 2002). Factor analysis (main factor mathematical method) identified two key factors: positive thinking and insecurity/security (see Table 6).

Table 6

Results of Factor Analysis Related to Sense of Well-being

	Positive thinking	Insecurity
I usually have a good influence on events.	0.776	-0.176
I feel I have a great deal of energy.	0.756	-0.248
Life is good.	0.738	-0.294
I always have a cheerful effect on others.	0.714	-0.083
I find most things amusing.	0.713	-0.157
I am always committed and involved.	0.707	0.002
I feel that life is very rewarding.	0.699	-0.245
I find beauty in most things.	0.694	-0.042
I feel able to take anything on.	0.686	-0.164
I am very happy.	0.638	-0.365
I laugh a lot.	0.623	-0.101
I am well satisfied about everything in my life.	0.619	-0.442
I have very warm feelings towards almost everyone.	0.6	0.116
I can fit in (find time for) everything I want to do.	0.563	-0.04
I don't find it difficult to make decisions.	0.536	-0.096
I feel fully mentally alert.	0.466	0.059
I often experience joy and elation.	0.441	0.105
I am intensely interested in other people.	0.325	0.136
I feel that I am not especially in control of my life.	-0.229	0.691

(Table 6 continued)

	Positive thinking	Insecurity
There is a gap between what I would like to do and what I have done.	-0.098	0.638
I don't feel particularly pleased with the way I am.	-0.058	0.588
I am not particularly optimistic about the future.	-0.026	0.577
I do not think that the world is a good place.	-0.319	0.574
I don't think I look attractive.	-0.319	0.562
I do not have a particular sense of meaning and purpose in my life.	-0.283	0.525
I don't have particularly happy memories of the past.	-0.336	0.517
I don't feel particularly healthy.	-0.245	0.499
I rarely wake up feeling rested.	-0.134	0.494
I don't have fun with other people.	-0.288	0.399

When considering how multiple factors affect the parent-child relationship, it is important to analyze these factors as a whole and avoid focusing on each independently. For example, when a parent rebukes his or her child, the child's response may vary significantly depending on the situation and the way he or she is rebuked. When a parent scolds angrily, the child may feel that his identity is denied. On the other hand, when the parent calmly disciplines the child regarding a dangerous action, the child will learn that his behavior is inappropriate. To properly assess the parenting methods, therefore, multiple factors must be combined to indicate how a parent treats the child. In the next section, we define the parenting styles based on multiple factor combinations. Then we explore how children's income and sense of well-being vary by the parenting method.

Parenting Types and Children's Performance

Parenting Types

For each of the six factors that characterize parenting style (interest, trust, norm, independence, time spent together, and experience of being scolded), interquartile ranges were obtained to convert the scores into categorical variables. Specifically, the first quartile (lowest 25%, Category No. 1) was labeled as "low", the second and third quartiles (Category No. 2) as "medium", and the fourth quartile (Category No. 3) as "high" for all the factors except for the experience of being scolded, of which categories were labeled as "never", "occasionally", and "always" strict, respectively.

In this study, we evaluated five parenting styles: supportive, tiger, indulgent, uninvolved, and abusive. The parenting methods of this study are defined as follows:

- (1) Supportive: high or medium independence, high trust, high interest, and high experience of time spent together.
- (2) Tiger: low independence, high or medium trust, always or occasionally strict, high or medium interest, high norm.
- (3) Indulgent: high or medium trust, never strict, high or medium experience of time spent together.
- (4) Uninvolved: low interest, never strict, low experience of time spent together, low norm.
- (5) Abusive: low interest, low independence, low trust, always strict.

Parenting Types and Income of Respondents

Table 7 and Figure 1 show the average income of the working respondents sorted by the parenting type. The average income is highest for the supportive type, followed by tiger, indulgent, uninvolved, and abusive type.

Parenting Types and Sense of Well-being

We examined the impact of parenting method on the respondents' sense of well-being by checking the average scores of the factors that are assumed to underlie sense of well-being (i.e., positive thinking and sense of insecurity, see Table 6). Positive thinking is nurtured most effectively by supportive parents but is most severely suppressed by abusive parenting, as shown in Table 8 and Figure 2. Additionally, uninvolved parenting is almost as detrimental as abusive parenting in nourishing positive attitudes in children.

Table 7

Average Pretax Income of the Working Respondents Sorted by Parenting Type

Parenting type	No. of responders	Average income (1,000 JPY)	Standard deviation	Standard error
Supportive	311	404.82	303.44	17.21
Tiger	227	391.63	331.36	21.99
Indulgent	1,010	356.24	285.36	8.98
Uninvolved	90	324.44	254.10	26.78
Abusive	70	260.00	211.55	25.29
Total	1,708	364.17	292.46	7.08

JPY: Japanese yen

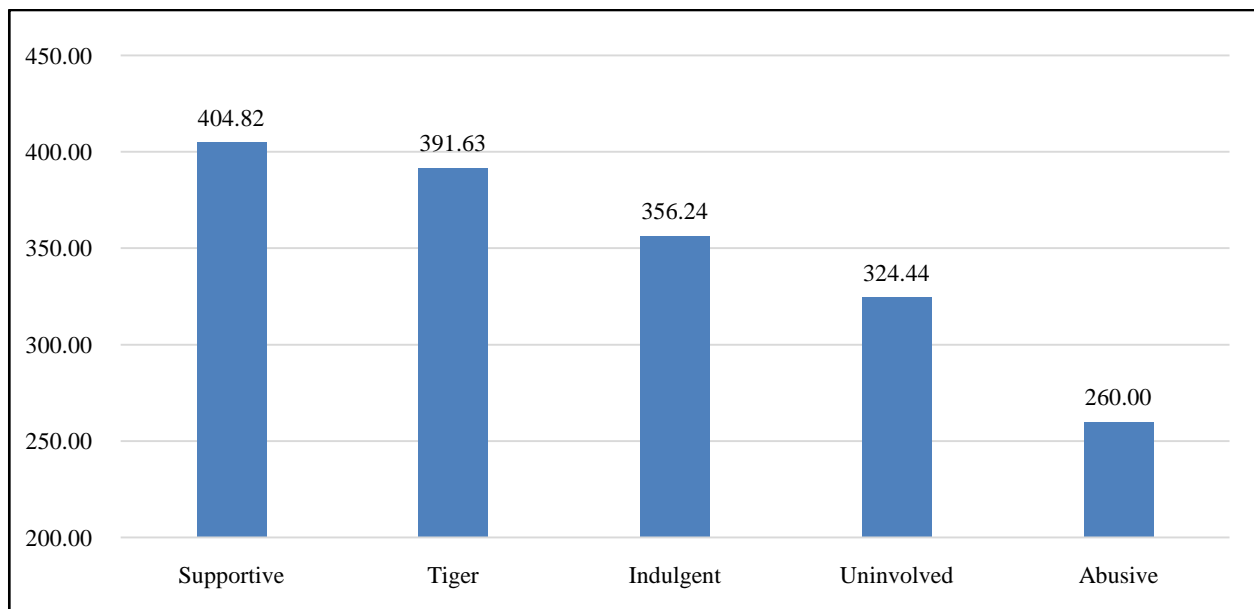


Figure 1. Average Income (working individuals).

Table 8

Effect of Parenting Method on Positive Thinking

Parenting method	No. of responders	Average score	Standard deviation	Standard error
Supportive	363	0.69	0.87	0.05
Tiger	277	0.07	1.01	0.06
Indulgent	1,277	0.13	0.88	0.02
Uninvolved	116	-0.51	1.17	0.11
Abusive	92	-0.62	1.03	0.11
Total	2,125	0.15	0.97	0.02

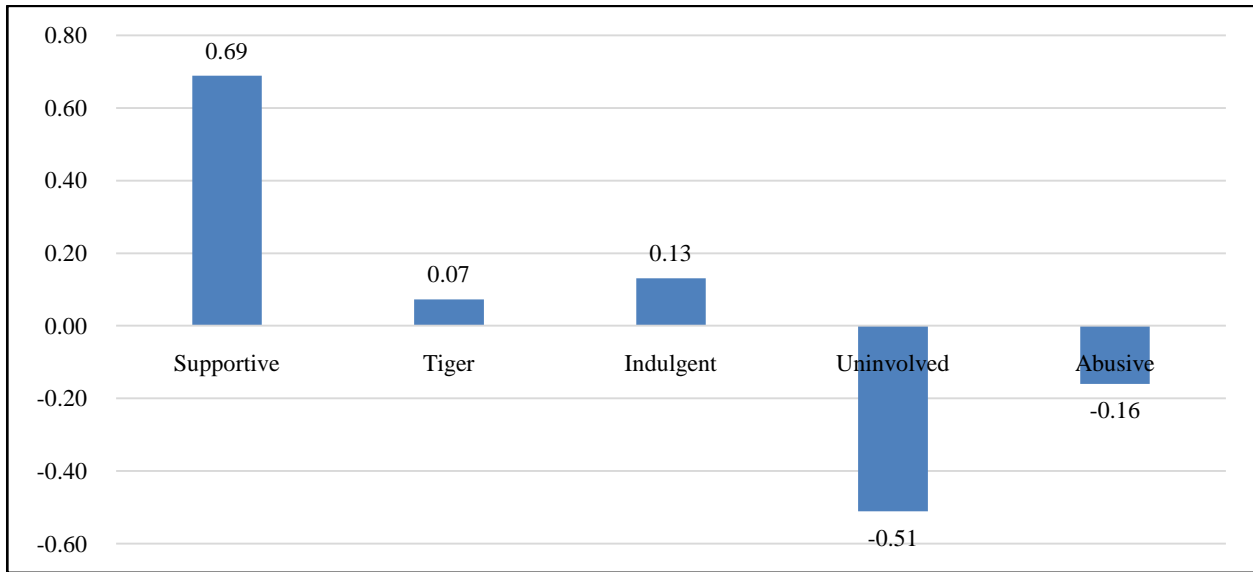


Figure 2. Positive thinking.

Child insecurity is least associated with supportive parenting, but most strongly related to abusive parenting, followed by uninvolved parenting (see Table 9 and Figure 3).

Table 9

Effect of Parenting Method on Insecurity

Parenting method	No. of respondents	Average score	Standard deviation	Standard error
Supportive	363	-0.39	0.83	0.04
Tiger	277	-0.05	0.88	0.05
Indulgent	1,277	-0.20	0.84	0.02
Uninvolved	116	0.34	1.02	0.09
Abusive	92	0.66	1.16	0.12
Total	2,125	-0.15	0.90	0.02

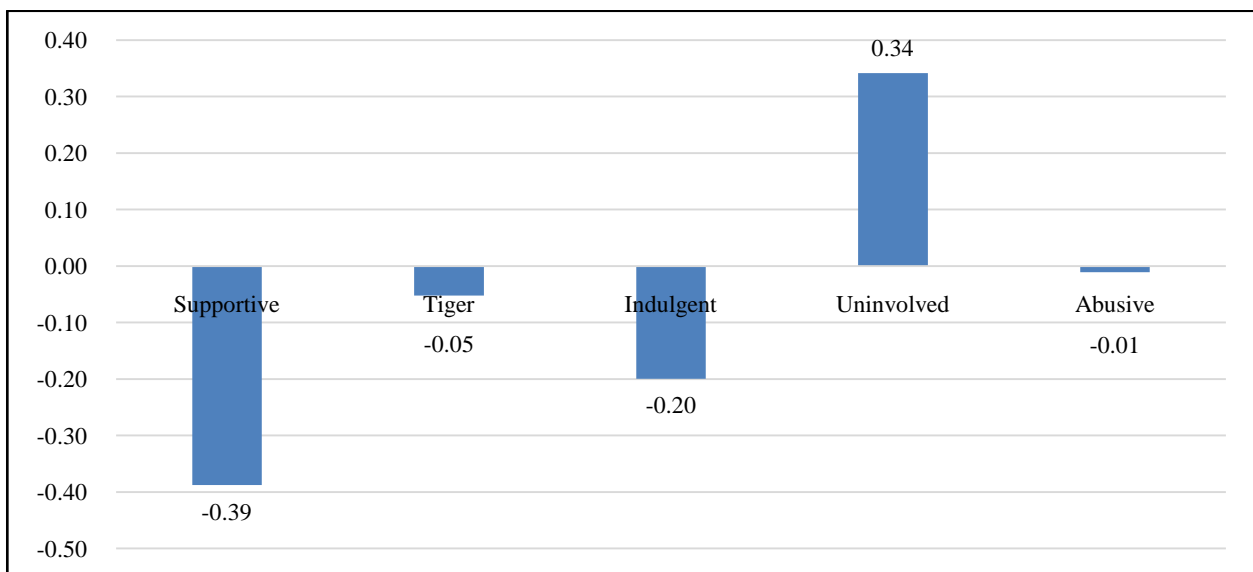


Figure 3. Sense of insecurity.

Parenting Types and Educational Attainment

This section compares the distribution of children's educational career between the different parenting types. Figure 4 shows that supportive parenting has the highest proportion of children completing higher education (i.e., university (four-year college) or graduate school), followed by indulgent parenting. The rate of higher education graduates is slightly lower for tiger parenting than indulgent parenting, indicating that the tiger parenting style does not effectively promote children's successful educational attainment. Meanwhile, uninvolved parenting showed the lowest rate of higher education graduates.

Parenting Types and Overall Success

We examined the relationships between the parenting methods and such items as income, positive thinking, insecurity, and academic achievement. To further build upon the above discussion, we also examined the effect of parenting method on the overall success in these items. Using a linear scaling transform, data of the respective items were normalized to a maximum of 25 points. For easy comparison, the results are shown in a radar chart. The sense of insecurity outcome measure was reversed to sense of security to reflect positive development. The educational attainment measure was quantified using the points assigned to the respective educational levels, so that the average scores were calculated for each parental method.

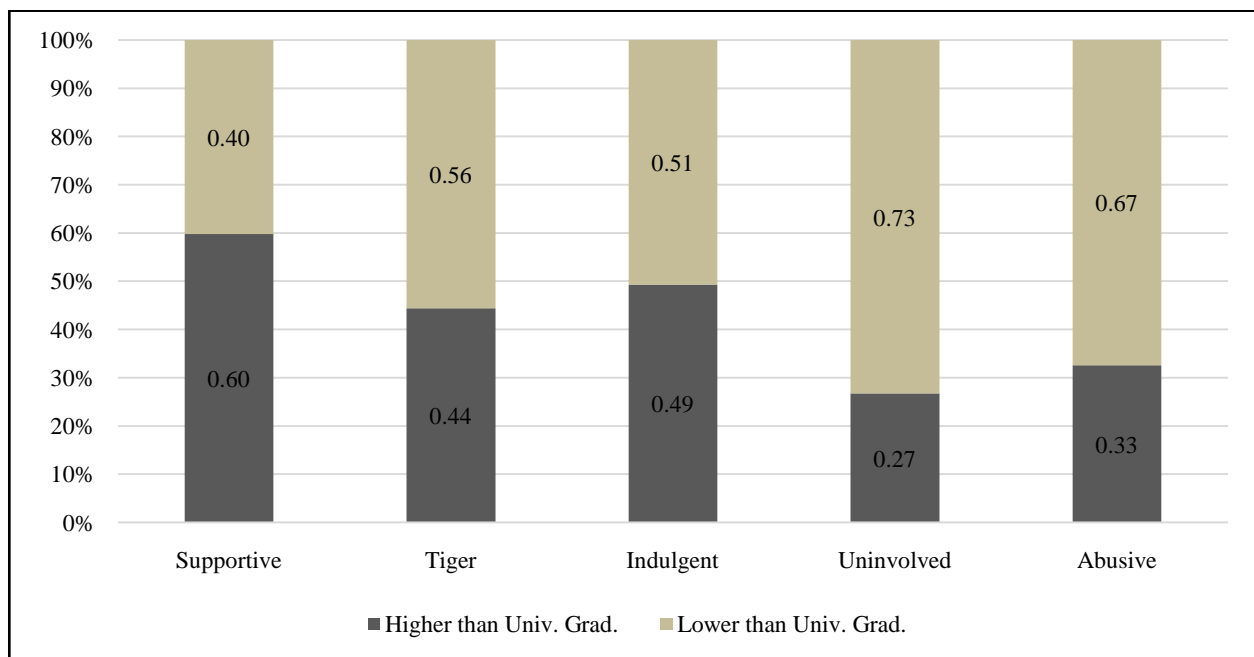


Figure 4. Academic Attainment by Type.

Figures 5 and 6 compare the effect of parenting method on children's success. The supportive type showed the highest level of success in all the items, with overwhelmingly higher scores in positive thinking than the other types. The chart shapes of the tiger and indulgent types look similar, but children of tiger parents score higher than those of indulgent parents in terms of average earnings, while children of indulgent parents have a higher sense of security. Meanwhile, children of abusive parents demonstrate the poorest performance in all outcome variables. It is noteworthy that the chart shape of the uninvolved type is similar to that of the abusive type.

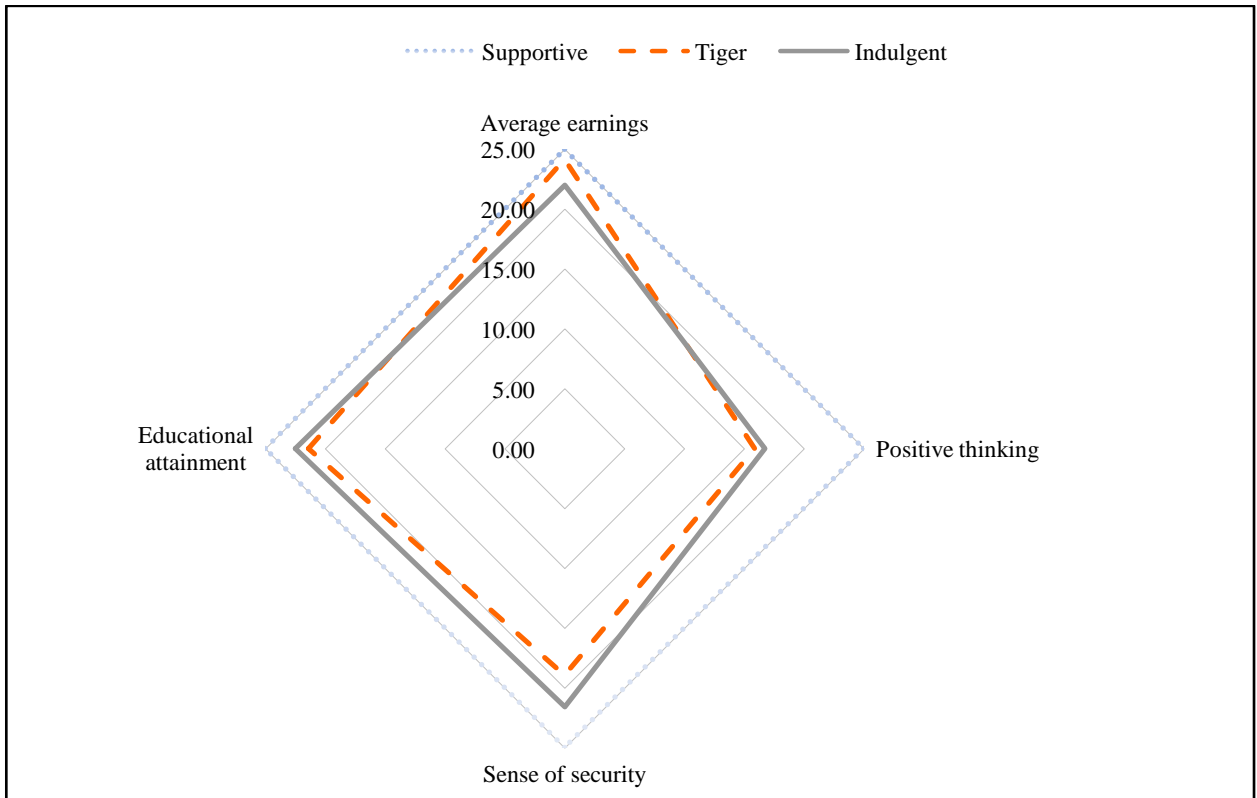


Figure 5. Parenting methods (Supportive, Tiger, Indulgent) and their effects on children's success.

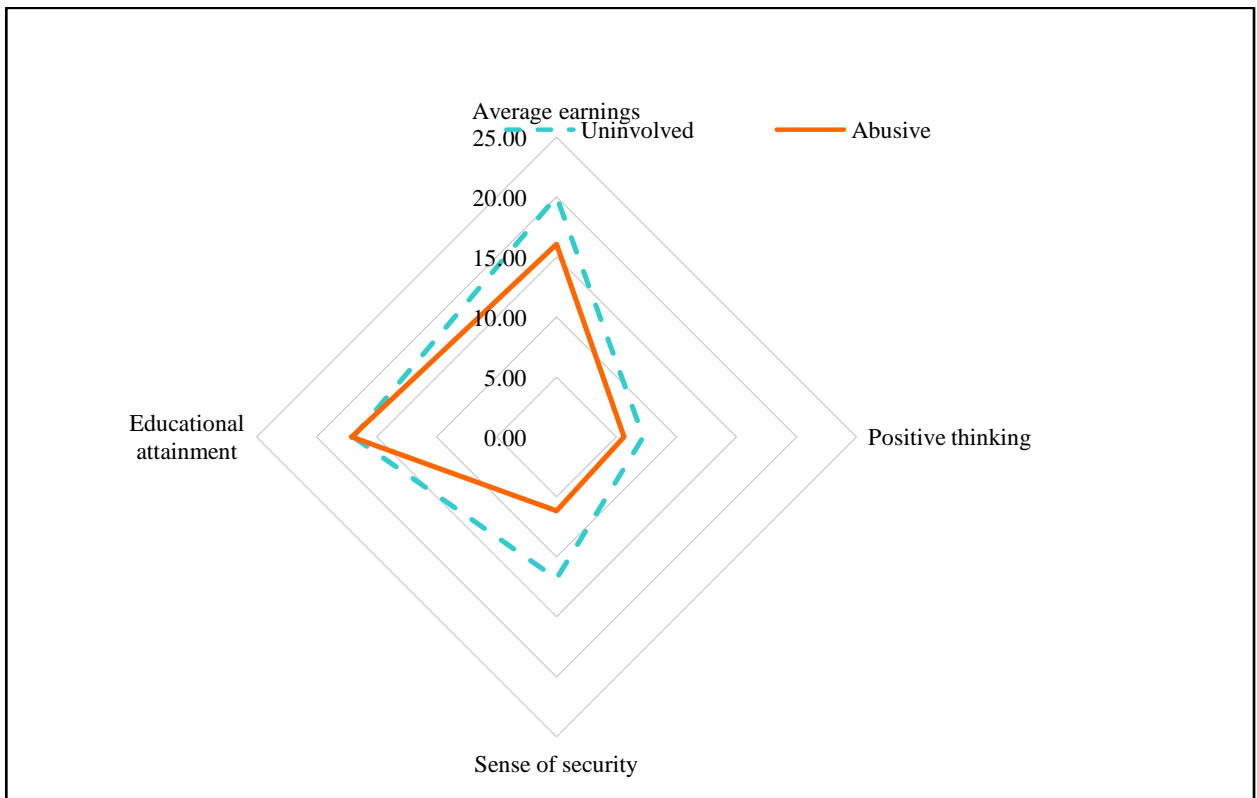


Figure 6. Parenting methods (Uninvolved, Abusive) and their effects on children's success.

Conclusions

We categorized the parenting methods into supportive, tiger, indulgent, uninvolved, and abusive types based on the levels of interest, trust, norm, independence, time spent together, and strictness as the indices. We then investigated the association between these parenting methods and children's average income, positive thinking, sense of security, and educational attainment. The supportive type demonstrates the highest performance for all the four outcome variables, whereas the abusive type scored the lowest. Our study outcomes show that good parenting includes having a warm interest in children, forming a trusting parent-child bond, sharing time together, and encouraging independence in children. To put it briefly, the supportive type of parenting would be to "watch over children with warm interest in them".

References

- Armsden, G. C., & Greenberg, M. T. (1987). The Inventory of Parent and Peer Attachment: Relationships to well-being in adolescence. *Journal of Youth and Adolescence*, *16*(5), 427-454.
- Barber, K. B. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, *67*(6), 3296-3319.
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs*, *75*(1), 43-88.
- Baumrind, D. (1968). Authoritarian vs. authoritative parental control. *Adolescence*, *3*, 255-272.
- Chua, A. (2011). *Battle hymn of the tiger mother*. New York, NY: Penguin Press.
- Fulgini, J. A., Tseng, V., & Lam, M. (1999). Attitudes toward family obligations among American adolescents with Asian, Latin American, and European Backgrounds. *Child Development*, *70*(4), 1030-1044.
- Ge, X. J., Best, K. M., Conger, R. D., & Simons, R. L. (1996). Parenting behaviors and the occurrence and co-occurrence of adolescent depressive symptoms and conduct problems. *Developmental Psychology*, *32*(4), 717-731.
- Hills, P., & Michael, A. (2002). The Oxford happiness questionnaire: A compact scale for the measurement of psychological well-being. *Personality and Individual Differences*, *33*, 1073-1082.
- Kim, S. Y., Wang, Y., Orozco-Lapray, D., Shen, Y., & Murtuza, M. (2013). Does "Tiger Parenting" exist? Parenting profiles of Chinese Americans and adolescent developmental outcomes. *Asian American Journal of Psychology*, *4*(1), 7-18.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. Mussen (Ed.), *Handbook of Child Psychology*. New York: Wiley.
- Nishimura, K., Hirata, J., Yagi, T., & Urasaka, J. (2016). Basic morality and social success in Japan. *Journal of Informatics and Data Mining*, *1*(1), 1-10.
- Zak, P. J. (2012). *The moral molecule: The source of love and prosperity*. New York: Dutton Adult.