# Analysis of Parental Investment Mode of Multi-child Families in China——The Influence of Sex and Age on Parents' Investment Choice

Yongtao Huang<sup>1\*</sup>, Yifan Xiao<sup>2</sup> and Yating Xu<sup>3</sup>

<sup>1</sup> Chengdu University, Chengdu 610100, China <sup>2</sup>Shanghai University of Political Science and Law, Shanghai 201701, China <sup>3</sup>Leshan Normal University, Leshan 614000, China \*Corresponding author: Yongtao Huang, E-mail: h13065634507@gmail.com.

# Abstract

With the progress of society and economic development, the quality and quantity of parental investment have an important impact on the future achievements of children. This study will use questionnaires and interviews to explore the specific effects of child gender and age on parental investment choice in multi-child families, and analyze the history of parental investment, problems, challenges, and impacts in multi-child families. The research shows that the parental investment mode of parents in their children tends to be diversified and personalized; the possible problems include economic pressure, educational pressure, family relationship pressure and emotional investment imbalance; the gender and difference may challenge the shaping of mate selection and parenting concept; and the influence aspects include economic pressure, educational resources and change of family relationship.

#### Keywords

multi-child family, parental investment, gender difference, age order

#### 1. Introduction

Parental investment refers to the time, energy and material resources that parents pay for the growth and development of their children. In families with multiple children, parental investment is particularly important because it is directly related to their education, health and social adaptability. The quality and quantity of parental investments can have an important impact on their children's future achievements. According to the data of the seventh census of the National Bureau of Statistics, the population in China has exceeded 1.4 billion, and the number of young people has reached 890 million. In this context, it is of great significance and expectation to study the influence of gender and age on parents' investment choice.

With the progress of society and the development of economy, the importance of family financial decisions and investment choices is becoming increasingly prominent. In this process, parents, as the economic pillar and decision makers of the family, their investment choices are not only directly related to the wealth accumulation and quality of life of the family, but also may have a profound impact on the growth and future development of their children. Therefore, exploring the influence of gender and age on parents

'investment choice is of great significance for the understanding of the decision-making mechanism of family investment, promoting the growth of family wealth and protecting children's rights and interests.

First, the gender of the children may have a direct impact on the parents' investment choices. Due to sociocultural and psychological factors, parents may have different expectations and preferences for children of different gender, thus showing different tendencies in investment choices. For example, for families with sons, parents may be more inclined to invest in high-risk, high-yield projects in order to achieve rapid growth of family wealth and provide more financial support for their son's future. For families with daughters, parents may pay more attention to the stability and security of their investment to ensure the quality of life and future development of their daughters.

Secondly, the age of the children is also a key factor affecting the parents' investment choice. As their children get older, parents' investment attitudes, risk tolerance, and financial goals can all change. When a child is young, parents may focus more on short-term gains and risk control to ensure the financial stability of the family and provide necessary support for the growth of their children. When their children enter adolescence or adulthood, parents may begin to consider longer-term investment plans, such as more funding for their children's education, marriage or entrepreneurship.

In conclusion, the sex and age of the children are important factors influencing parental investment choice. To further understand how these factors affect family investment decisions and reveal the mechanisms and pathways, this study will use questionnaires and interviews to collect relevant data and conduct in-depth analysis. By exploring the specific effects of sex and age of children on parental investment choice and their effects mechanism aims to provide more scientific and reasonable advice for family financial decision-making, and promote the growth of family wealth and the all-round development of children. A comprehensive understanding of the impact of children's gender and age on parents' investment choices will not only promote the growth of family wealth and the overall development of children, but also promote indepth research in the field of family economics and investment science.

#### 2. Review of the Literature

#### 2.1 Impact of Child Gender on Parental Investment

The impact of child gender on parental investment is an area of intense research. In traditional societies, there are often obvious differences in parental investment in their sons and daughters due to the constraints of cultural and social structure. This difference is mainly reflected in the educational resources and economic support. Parents tend to be more inclined to provide more educational resources for their sons, and expect them to play a more important role in the family and society in the future, such as assuming the breadwinner of the family or inheriting the family tradition. For daughters, parents may pay more attention to their marriage and family life arrangements, and may invest relatively less in education (Boyd & Richerson, 1985) . Lamb's (2004) found that parents may focus more on emotional support and companionship, expecting them to succeed in emotional and social relationships.

However, with social progress and gender perception changes, this investment difference is diminishing. In the modern society, more and more parents are beginning to realize that the education of their daughters is as important as the career development. They began to provide more educational opportunities and financial support to their daughters and encourage them to pursue their dreams and careers (Bloom et al., 2013).

In terms of the effect of gender on parental investment, the study also found that parental investment choices were also influenced by household financial status. In situations with limited family financial conditions, parents may need to weigh the investments in their sons and daughters to ensure the overall wellbeing and future development of the family. In better family economic conditions, parents may be more able to provide more resources and support to their children, while gender differences may be relatively small (Blake, 1981).

#### 2.2 Gender Role Socialization and Parental Investment

In their study, Eagly and Wood (2012) noted that gender role socialization is a complex process that involves the expectations and norms of parents, peers, schools and society. These expectations and norms

affect not only how parents treat and raise children of different genders, but also how their children understand and accept their gender roles. Thus, parental investment choices may be based not only on the gender of their children, but also on their understanding and expectations of gender roles.

#### 2.3 Impact of Children's Age on Parents' Investment Choice

The age of their children is also one of the important factors that parents consider in their investment choices. As their children grow older, their demand and dependence on resources also change. Younger children often need more daily care and educational resources to support their growth and development. Parents may need to devote more time and energy to take care of their children's living and learning needs (Leibenstein, 1957)Becker, 1981). Adolescent and early adult children may need more financial support and the establishment of social relationships. Parents should help their children complete their studies, establish careers and social networks at this stage. At the same time, parents may begin to focus on their children's marriage and family life arrangements and provide them with more guidance and support.

#### 2.4 The Combined Effect of Gender and Age

When considering the sex and age of their children, Deater-Deckard and Lansford (2012) found that parents may adjust their investment strategies based on the specific age and sex of their children. For example, for younger sons, parents may focus more on material input; for older daughters, parents may focus more on emotional support and companionship. Blake (1981), in his study, he mentioned that there may be resource competition among children in families with multiple children. Parents may be influenced by the gender and age of their children when allocating resources. For example, they may think that older children should be more independent and therefore provide them with less resources; while younger children may need more care and thus receive more resources. This pattern of resource allocation may produce differences between gender-specific children.

## 2.5 Continuation of Historical Research Conclusions

With the advent of the industrial Revolution, the family structure and social roles have changed dramatically. Fisher (1977) pointed out in his research that before the Industrial Revolution, the family was the main unit of production, and the children were regarded as an important source of family labor force. Therefore, parents may provide more vocational skills training and practice opportunities for their children. However, with the advancement of the industrial Revolution, school education gradually replaced family education as the main form of education, and parents' investment in their children gradually shifted to education. Pleck (1977) mentioned in his research that with the popularization of gender equality concepts and the improvement of women's status, parents' investment choices for their children are also changing. In modern society, more and more women participate in the workplace, which gradually weakens parents' expectations of their children. Thus, parents may no longer allocate resources and opportunities solely on the gender of their children, and focus more on their individual abilities and interests.

#### 2.6 Conclusion

Through the review of the relevant literature, we can see that the sex and age of children are indeed important factors for parents' investment choice in families with multiple children. However, this effect is not absolute, it is influenced by many factors, including cultural tradition, social structure, and family economic status (Blake, 1981). Future studies could go further into exploring the interactions between these factors and how they together influence parental investment choices.

In addition, with the changes of society and demographic structure, the parental investment pattern of multi-child families may also change accordingly. Therefore, continued attention and in-depth research in this field have important theoretical and practical implications (Bongaarts, 2001). By citing more literature and conclusions, we can get a more comprehensive understanding of the complexity and diversity of parental investment patterns in multi-child families and provide stronger support for future research. At the same time, these studies can also help us to better understand the relationship between family and society and how they jointly affect the growth and development of individuals.

# 3. Study Methods

#### 3.1 Study Design

This study aims to explore how child gender, age and other potential factors influence parental investment behavior in the context of fertility policy changes in modern society. In order to understand this problem comprehensively and in-depth, the study adopted a combined quantitative and qualitative research design, issued questionnaires, semi-structured interviews, and comprehensively analyzed this phenomenon and its influence combined with historical research conclusions and survey statistics.

# 3.2 The Questionnaire Survey

#### 3.2.1 Data Source

The study data were mainly derived from a nationwide questionnaire survey. To ensure the universality and representativeness of the data, a total of 39 households in 12 regions covering different geographical, economic and cultural backgrounds were selected for the study. The target population are 15-20 and 15-20 and 40-50, representing the growing new and already parents, respectively.

#### 3.2.2 Sample Selection

In terms of sample selection, the study used stratified random sampling to ensure the sample distribution within each region and age. At the same time, considering the possible differences in families under different socio-economic backgrounds, the study also focused specifically on urban-rural differences and the representation of different income classes.

#### 3.2.3 Variable definitions

Key variables in the study included child gender, age, parental parental investment behavior (e. g., education input, time input, etc.), and family background (e. g., family income, family social resources, etc.). These variables were strictly defined to ensure that accuracy and validity of the analysis.

NAME	OPTION	Frequency	Percentage (%)	Cumulative Percentage (%)
1.How many children you (or your family)	2	26	74.29	74.29
have?	3	8	22.86	97.14
	4 or more	1	2.86	100.00
2. Do you (or your family) keep an equal	YES	24	68.57	100.00
investment in each child (including time, money, education, etc.)?	NO	11	31.43	31.43
3. Which child do you (or your family) think	First Child	19	54.29	54.29
needs your investment (time, money,	Second Child	11	31.43	88.57
education, etc.) most likely?	Third Child	1	2.86	57.14
	Fourth Child or Other	4	11.43	100.00
4. Will you (or your family) adjust your	YES	27	77.14	100.00
investment strategy according to the children's interests or talents?	NO	8	22.86	22.86
5. Will you (or your family) adjust your	No Obvious Tendency	23	65.71	65.71
investment strategy by considering the gender of your children?	More Inclined to Invest In Women	5	14.29	80.00
	More Inclined to Invest In Men	7	20.00	100.00
6. Do you (or your family) think that in a	YES	24	68.57	100.00
family with many children, the distribution of investments (time, money, education, etc.) affects the relationship between the children?	NO	11	31.43	31.43
7. Have you (or your family) ever felt guilty	YES	20	57.14	100.00
or regretful because of insufficient investment?	NO	15	42.86	42.86
8. Have you (or your family) ever felt tired	YES	21	60.00	100.00

 Table 1: Analysis of parental investment patterns of multi-child families in China

NAME	OPTION	Frequency	Percentage (%)	Cumulative Percentage (%)
or stressed out because you had invested too much?	NO	14	40.00	40.00
9. What principles do you (or your family)	Interest Principle	2	5.71	5.71
think parents should base their investment	Parity Principle	10	28.57	34.29
strategies on in a family with many children?	Talent Principle	3	8.57	42.86
strategies on in a failing with many children?				
	Demand Principle	20	57.14	100.00
10. Would you (or your family) be willing to	YES	21	60.00	100.00
share your experiences and lessons learned from the investment model for families with many children?	NO	14	40.00	40.00
11. How do you (or your family) think the	No Noticeable Effect	9	25.71	25.71
investment model in a family with many	Positive Effects	20	57.14	100.00
children affects the growth of your children?	Negative Effects	6	17.14	42.86
12. What factors do you (or your family)	The Needs of The	4	11.43	11.43
think will influence investment strategies in	Child			
families with many children?	The Needs of The Child : The Financial	7	20.00	31.43
	Situation of The Family			
	The Needs of The Child : The Financial	2	5.71	37.14
	Situation of The Family Society's Expectations			
	The Needs of The Child : The Financial	8	22.86	60.00
	Situation of The Family Society's Expectations			
	Emotional Tendencies of Oneself The Needs of The Child : The Financial Situation of The Family	5	14.29	74.29
	Emotional Tendencies of Oneself The Financial Situation	6	17.14	91.43
	of The Family The Financial Situation of The Family	1	2.86	94.29
	Society's Expectations The Financial Situation of The Family	1	2.86	97.14
	Society's Expectations Emotional Tendencies of Oneself The Financial Situation of The Family	1	2.86	100.00
	Emotional Tendencies of Oneself			
13. Do you (or your family) think that in a family with many children, the parents' investment strategy will affect the future development of their children?	YES NO	31 4	88.57 11.43	100.00 11.43
14. What do you (or your family) think parents should avoid in the multi-child family investment model?	Preference For a Child Insufficient Investment	20 2	57.14 5.71	57.14 62.86
	in Children Investing Too Much in	3	8.57	71.43

NAME	OPTION	Frequency	Percentage (%)	Cumulative Percentage (%)
	Children			
	Ignoring The Needs of Children	10	28.57	100.00
15. Is there a child in your family that you	YES	19	54.29	100.00
feel more emotionally invested? Why?	NO	16	45.71	45.71
16. Have you (or your family) ever adjusted	YES	20	57.14	100.00
your investment strategy for other children	NO	15	42.86	42.86
because of a child's behavior or performance?				
17. Do you (or your family) believe that	YES	32	91.43	100.00
every child should have access to the same educational resources or opportunities?	NO	3	8.57	8.57
18. Do you (or your family) increase your	Reduce	4	11.43	11.43
investment in a child because of his or her	Increase	25	71.43	82.86
specific needs (e.g., health problems, learning difficulties, etc.)?	No Significant Change	6	17.14	100.00
19. Have you (or your family) ever adjusted	YES	18	51.43	100.00
your investment strategy for your children because of the opinions or suggestions of other family members (such as spouse, other	NO	17	48.57	48.57
relatives, etc.)? 20. Do you (or your family) think that	YES	19	54.29	100.00
parental investment strategies in families	NO	16	45.71	45.71
with many children are influenced by cultural differences? Like what?	NO	10	43.71	45.71
21. Have you (or your family) tried to share	YES	24	68.57	100.00
nvestment strategies or experiences with other parents of families with many children?	NO	11	31.43	31.43
22. Do you (or your family) believe that	YES	25	71.43	100.00
parental investment strategies in multi-child	NO	10	28.57	28.57
families should take into account the long- term development of the children and not just the immediate needs?		10	20.37	20.07
23. Have you (or your family) ever felt	YES	18	51.43	100.00
ndebted to one child because he had nvested too much in one child?	NO	17	48.57	48.57
24. Do you think that in a family with many	YES	25	71.43	100.00
children, parents should openly discuss and decide on investment strategies together?	NO	10	28.57	28.57
25. Do you think that in a family with many	YES	31	88.57	100.00
children, the parents' investment strategy will affect the overall atmosphere and parent- child relationship of the family?	NO	4	11.43	11.43
26. Do you continue the parental investment method for your children?	No, I choose the interest principle	5	14.29	14.29
	No, I choose the parity principle	9	25.71	40.00
	No, I choose the talent principle	4	11.43	51.43
	No, I choose the demand principle	11	31.43	82.86
	YES	6	17.51	100.00
Amount To		35	100.00	100.00

#### 3.3 Interview

#### 3.3.1 Interview Objectives

The interview aims to understand the children's views on the parental investment status in their family from an individual perspective.

#### **3.3.2** Interview Design

Interview around more children parent-child relationship in the family and the relationship between children, using semi-structured interview, recruit interviewees on campus BBS, in order to realize randomness, and the interviewer, and the interview time at 9 am on March 8, location choice in an empty classroom, as far as possible for the interviewees to provide intimate and comfortable environment. The interviews were audio-recorded throughout to ensure the accuracy of the results.

#### **3.3.3** Interview Content

The privacy protection of this interview was explained, and the whole interview was recorded after obtaining consent.

Interviewer: I want to know first, where are you from? (A)

A: My father is from Shandong, my mother is from Guizhou, and half of my brother's education was in Shanghai, and half of my education was in Guizhou.

Interviewer: I heard you say that you have an older brother, and then how old is your brother? (B)

Little A: Two years older than me.

Interviewer: Can you find out how you and your brother are on track? (C)

Xiao A: I should be the best among my relatives, that is, I have a better relationship with him than I have with my parents. Well, because the age is about the same, although I loved to fight when I was a child, but the feelings are there, and I will protect each other and care about each other, although he protects me a little more, and then my parents are because of their own education is not high, and then the work is also very tired. Well, that idea is more fixed, and then stubborn, so they will be restricted a lot by them, and then they are very uncomfortable, so I am more able to communicate with my brother. Most of the time, such as the kind of very fierce quarrel with parents, I will particularly down, this time it is very important to have a brother. But this has nothing to do with the economy, mainly you and your friends, you can't always say these, if not the kind of friends familiar with your family situation, if you follow a friend nonsense these, will feel that will slowly push you away.

Interviewer: You said that you and your parents may have some conflicts. What is the relationship between your brother and your parents? Will there be this kind of quarrel, too? (D)

Xiao A: Yes, but, well, look at the current years, he is much better than me, because he may be because of the senior year, and then the social experience is more, will deal with some contradictions more slowly ah. In our family, if my father and my mother quarrel, if the quarrel is fierce, he will reconcile. If I fight with my parents, sometimes he will reconcile them.

Interviewer: Who would your parents communicate more with their two children? (E)

Small A: Overall not much, but it should be more with me, right? When we were young, we lived with my brother and my parents, and the four of us. Then when I went to junior high school, my brother had gone back to his hometown to go to high school. At that time, he lived alone in my uncle's house, and he would have a little less relationship with my parents, and he was not particularly fond of talking. Generally, I ask him for my high school accommodation, but he is always the passive one, and I communicate with my parents a little less. I didn't contact him, but he was very comfortable.

Interviewer: Do you say that your parents give you a lot of pressure in study, but will he also give you a lot of pressure on your brother in study? (F)

Xiao A: According to the results, he may score a little lower than me, but in the process of growing up since childhood, I feel that we lived together in Shanghai for some time, when four people lived together.

Mom and dad value us the same. Then when he returned to his hometown, his parents had no other extra energy to take care of him. Although my uncle is also very strict with him, but he went to high school is more independent kind, but his parents did not control to very much.

Interviewer: Do you sometimes think of which child do your parents love more? (G)

Xiao A: Actually, I think I have a preference, namely, well, I think they still prefer my brother more, because I was my last generation in my mother's family. I have four aunts, including my mother's four girls who are not in high school. Well, then my mother is still good at learning, and then is English learning is better, just let him go to junior high school. Then my two uncles are now teachers, which shows that they received very good education. This thought has been passed down a bit, but it seems ok, well, maybe because we are four people in Shanghai since childhood, and then we are that, the time is to give strength to each other, will not be affected by too much hometown relatives, but the feeling will still have a faint influence of the thought of preferring sons over girls.

#### 3.3.4 Analysis of the Interview Results

From this interview, The author learned that the structure of the interviewer's multi-child family is a family of four, Four people live together in their childhood, Received a strict education from their parents, After the small A junior high school, Brother and sister are placed in different growth environments, From the analysis of paragraph (E), The significant differences in the geographical distance between children and their parents will directly lead to the differences in parental investment methods, Perhaps wondering which child to choose close care for when financially and energetic is related to the independence of their parents, In the evaluation criteria of independence, age and gender are important references; In paragraph (F); In the paragraph (G), Xiao A describes the phenomenon of family "boy preference" due to her grandparents' ideas, but this phenomenon has improved under the influence of changing social environment. In addition, in the interview, the author found that the older children in families with multiple children also play the role of caregiver in the family besides the status of the caregiver. The order of children in families with multiple children and social role.

#### 4. Study Results

#### 4.1 Study History and Its Changing Trends

In China, the history of research on the parental investment patterns of multi-child families can be traced back to the end of the last century, and with the rapid development of social economy and culture, the family structure and demographic characteristics have changed significantly. These changes have prompted further academic exploration and research in this field.

Early studies have mainly focused on the relationship between the gender of the children and parental investment. Influenced by traditional gender concepts and family roles, many scholars hypothesize that parents are more inclined to invest in male children, especially with limited family financial resources, such as education and occupation (Wang, 2007). However, with the progress of society and the improvement of women's status, this gender difference gradually weakened, and scholars began to pay attention to the influence of other factors that may affect parents' investment decisions, such as children's age, education level and other factors on parents' investment decisions (Qi, 2013). For example, older children may need more financial support from their parents to complete school or start a career. At the same time, children with a higher education level may need more spiritual and emotional support from their parents to cope with learning pressures and future career challenges.

In recent studies, scholars have begun to consider multiple factors, such as family economic status, parental education level, and family culture, in order to more fully understand the complexity and dynamic changes of parental investment patterns. These studies not only focused on gender and age, but also explored other factors that may influence parental investment choice, such as the health status of their children, the financial burden of the family, etc. In addition, with the change of demographic structure, such as the aggravation of the aging problem, the pension problem of families with many children has gradually become a research hotspot (Yu, 2019). Scholars began to explore how parents can strike a balance between

supporting their children and supporting their own care, and how to meet the long-term needs of their families through reasonable investment strategies.

These studies have important implications for understanding the parental investment model in multi-child families. They can not only help to reveal the mechanisms of resource allocation within families, but also help to understand the underlying causes of social gender roles and family structure changes. In order to further understand the changes of parental investment mode of multi-child families in the modern background, this study adopted the shortcut survey of the age groups aged 15-20 and 40-50 in different regions of the country, and found that contemporary parents' investment choices for their children showed diversified and personalized investment methods. The survey showed that 72.5% of families chose to invest equally in each child, but 57.5% believed that more resources should be invested in their first child. It can be seen that age still has a certain influence on contemporary parents' investment choices in their children. As for the difference of gender, 62.5% of families do not prefer to invest in children of a certain gender. The influence of gender factor is far lower than the results of the last century, that is, with the development of social culture, traditional ideas such as the preference for sons over daughters have been greatly reduced. In addition, for the investment choice of contemporary young people in the next generation, 30% of them tend to follow the demand principle, that is, to invest according to the needs of their children; 20% choose to follow the investment method of the previous generation, believing that it is more prudent. And 70% of people think it is necessary to exchange investment experience with other families, proving that this generation will present more diversified and changeable investment methods than the investment philosophy of the previous generation.

To sum up, in today's era both economic and cultural rapid development, parents of children's investment will tend to diversified, personalized, no longer rigid to follow the first child, male children, gender and age still have certain influence but has not become a single determinant.

# 4.2 Problems and Challenges in the Parental Investment Model of Multi-child Families in China

#### 4.2.1 Questions

The possible problems with parental investment in multi-child families in China include the economic pressures, education pressures and family relationships mentioned above. The balance of investment between children is not only the balance of absolute quantity, but also to avoid the preconceived stereotype, treat children equally, and choose what principle is the best plan, that is, to help to improve the function of the family. An important manifestation of the heterogeneity among different families (Liu et al., 2021) is the allocation and input of educational resources, so the allocation mode of educational resources in homogenized families is unreasonable.

However, when it comes to emotional investment, it should be treated in a special way. We say that "parents are the best teachers of their children", especially the education of love. Compare love to candy, both of which are things that most children enjoy. "When a child has plenty of candy, he is more willing to share generously than a child with only a few candies." When a child receives as much care and love as possible in his childhood, then in the age of his second child when he grows up, he will no longer fear that his parents' love for him will be divided into two and taken in half, but they will receive love that is not absolutely consistent, but equally complete.

Parents often take pride in the "free-range" model of raising their children, attributing their children's achievements to enlightened parenting and superior genetic inheritance. In practice, however, such a model requires certain conditions to avoid problematic behaviour (Sun et al., 2018). For example, during the development of children's cognitive level, appropriate and appropriate guidance is beneficial to children's development, especially in families with many children, and in addition to adequate guidance, we should also pay attention to the reasonable allocation of resources such as education, time, and energy. In contrast, some families are "overprotective" to their children, and parents with intensive motherhood and helicopter parents as parenting patterns are prone to parenting burnout, which has a negative impact on the formation of children's attachment styles (Cheng et al., 2022).

It seems that it is the duty of parents to love every child equally, but according to our sample analysis, this is not the case. In question 15, "Is there a child in your family that you feel more emotionally invested in?" Why? The answers to "no" give different reasons: "different personalities", "small ones are not as good as big ones", "academic qualifications" and so on. At the same time, the gender differences in parental investment in Chinese multi-child families are not only reflected in the "boy preference" that is prevalent in East Asian societies such as China, but also as the family's economic situation tends to be affluent and gender concepts become equalized (Liu et al., 2021). The gender difference in parental investment is gradually smoothed out, and even the "girl preference" of individual families appears.

#### 4.2.2 Challenges

Gender differences in parental investment patterns may shape the views of mate selection and parenting. According to the neurophysiological mechanism of attachment, parents pay attention to the children when young resources allocation long-term or intermittent shortage is lead to the secure attachment personality — anxiety attachment personality or the important cause of avoidance personality formation, is not only a children in the face of pressure can not properly handle one of the causes of anxiety, the parental investment pattern of gender differences and the formation of children mate. Women are more likely to develop an anxious attachment personality, while men are more likely to develop an avoidant attachment personality, and parents' gender beliefs are reflected by differences in their choice of child parenting patterns. Therefore, the gender differences in parental investment patterns may shape the views of mate selection and parenting.

In multi-child families, parents need to balance the equal investment and support for each child, which may lead to the unbalanced and unfair distribution of parents' psychological accounts. At the same time, the unbalanced investment in the time and energy of parents in families with multiple children may lead to irreconcilable contradictions between children, leading to conflicts between family members.

Children education, parents need to provide education support for each child, including tuition, classes, this may bring economic pressure to the family, when the family economic resources is not quite abundant, may meet education resource allocation imbalance, parents or according to the children gender, age order, or simply according to the personal preference, ignore their children's interest and learning ability, the possible result is the unreasonable allocation of resources waste and dislocation.

Considering that parental investment refers to the parental investment to increase the survival and wellbeing of future generations, the problems of elderly pension and asset inheritance of parents in multi-child families are also a major challenge. In multi-child families, parents may need to consider how to allocate their pension and pension assets, and how to balance their children's care responsibilities. In multi-child families, parents need to consider how to pass on property and assets to their children to avoid family disputes and conflicts, which is also a major challenge for the parental investment model of multi-child families in China.

In addition, from a macro-psychological point of view, the psychology of "preference" will be transmitted from generation to generation, so that stereotypes are solidified.

#### 4.3 Impact of Parental Investment in Families with Multiple Children

#### 4.3.1 Economic Pressure

In a society with a small family as the unit in China, parental investment in the family, especially the parental investment of parents in their children, runs through almost all of the children's birth to the growth of young adults, and the time span can even be extended from the period when the parents are preparing for pregnancy to the time when the children are married. The importance of this cannot be overstated. In other words, it takes a lot of money, time, and energy. In multi-child households, the exponential increase in investment costs has put enormous financial pressure on most parents, thus weakening the scale of parental investment to a certain extent. According to the questionnaire, 11 (28.21%) did not maintain an equal investment in each child in families with many children; In multi-child families, 28 people, accounting for 71.79%, maintained equal investment for each child, indicating that the number of children affected the investment of parents in multi-child families to a certain extent. At the same time, having more children increases the risk and uncertainty of family investment, which requires more costs to deal with.

#### 4.3.2 Educational Resources

In parental investment, education investment is larger, and in recent years, as the employment environment is more and more severe, parents regard education as climbing path on the social ladder, combined with the education market advance (Liu Baozhong, 2020), the related industry capital secretly power, parental investment in the field of education.

We can preliminarily infer that the number of children also affects the investment of parental parents in education to some extent. According to the questionnaire, 23 people, accounting for 58.97%, were considered the most needed investment, indicating that the number of more siblings will reduce the per capita investment cost on each child in families with multiple children. Some scholars believe that Becker's resource dilution theory shows that in the case of limited resources, the more children in the family, the less resources each child gets. Education expectation is the intermediary mechanism that affects the education investment in multi-child families. More siblings gradually reduce the parents' education expectation for their children, and reduce the investment in education to a certain extent (Wei & Ren, 2023).

According to the survey report, 9 people prefer to invest in men, accounting for 23.08%, 5 people prefer to invest in women, accounting for 12.82%, and 25 people prefer not to women, accounting for 64.1%. It shows that the dilution effect of educational resources not only reflects the number of children in the family, but also reflects the gender of the children, and has a greater impact on girls. This has nothing to do with the thought of "son preference over daughters" in traditional Chinese social culture, and the social reality requires higher educational background and wealth for men. It is also common to adjust other children's investment strategies because of one child. According to the survey report, there were 24 people, or 61.54 percent, who had similar behaviors in families with multiple children. Parents may decide whether to make an investment in another child because of the effect of the investment, or adjust the size of the investment. Based on genetic and family factors, such behavior has certain practical basis, but it is not completely objective, because every child has his personal conditions, even if the completely equal parental investment, the return may not be exactly the same.

#### 4.3.3 Changes in Family Relationships

According to the survey report, 28 people, accounting for 71.79 percent, believe that investment distribution will affect the relationship between their children. The unequal parental investment will intensify the contradiction between children, and even make the conflict between children and parents, thus destroying the family relationship.

According to the survey report, 61.54% believe that the investment model has a positive impact on the growth of children, and 61.54% believe that the investment model has a positive impact on the growth of children. This shows that the majority of families believe that parental investment has a positive impact on their children's growth. Ecosystem theorist Bronfenbrenner believes that adolescent development is the result of the system interaction of their environment, with the largest microsystem being peers and families. As the most important link in the family system, the parent-child relationship is regarded as a central factor affecting the development of adolescent behavior. Parental investment has a strong intermediary effect in the intervention conditions, and the relationship between children's risk and children's health (Sun et al., 2018). We can see parental investment as a "sunk cost", and in cases of such costs, intimate relationships are considered to give more practical meaning. Parents cherish the cost, and as the cost of pouring increases, the affection for their children grows. With the increase of age and social experience, children will more and more realize the hard-won cost of their parents, and then cherish the intimate relationship with their parents more psychologically. But a few negative effects of is, the parents "sunk cost" cost too big, they cannot accept their children to go against their will, even as an excuse to "moral kidnapping" children according to their set good life track, this is most young people in recent years of one of the characteristics of "Chinese family". At this time, parental investment is not an important medium for the parent-child relationship, but the shackles of children's freedom, which is a sharp tool to collapse the family relationship. We should face up to parental investment and correctly and maximize its positive role in family relations and children's growth.

Through this survey, we study the factors that may influence the investment choice of parents on their children in contemporary Chinese multi-child families, and draw the conclusion that the influence of child

gender and age factors is relatively reduced, and more factors are affecting the investment choice of contemporary Chinese parents. However, due to the lack of sample size and the limitation of the investigation scope, we can only draw preliminary conclusions.

In addition, multi-child families face multiple challenges in parental investment. Economic pressure intensifies with the increase of the number of children, leading to a difficult equal distribution of resources, which may trigger internal family conflicts. The dilution of educational resources and potential gender bias make investment allocation more complex and unequal. This unequal investment not only affects the growth of their children, but also profoundly affects the harmony of family relations.

In conclusion, in order to build a harmonious and fair family environment, parents need to strive to balance and fairly distribute parental investment. This requires parents not only to have enough economic ability and educational resources, but also to uphold the concept of equality and fair family education. At the same time, the social and policy levels should also provide corresponding support and help, so as to reduce the economic and educational burden of families with multiple children, and promote family harmony and social equity.

#### References

Blake, J. (1981). The end of an era: The changing social structure of america. Russell Sage Foundation.

- Bloom, D. E., Canning, D., Fink, G., & Finlay, J. E. (2013). Fertility, female labor force participation, and the demographic dividend. *Journal of Economic Growth*, *18*(2), 79-101.
- Bongaarts, J. (2001). The causes of low fertility in the developed world. *Population and Development Review*, 27(Suppl), 195-239.
- Boyd, R., & Richerson, P. J. (1985). Culture and the evolutionary process. University of Chicago Press.
- Cheng, L. P., Wang, W., Wang, S. N., Li, Y. M., & Li, Y. X. (2022). Attachment styles and maternal parenting burnout: The mediating role of coping styles. *Chinese Journal of Clinical Psychology*, (6), 1294-1296.
- Deater-Deckard, K., & Lansford, J. E. (2012). Parenting stress and child adjustment across the first decade of life: An examination of transactional models. *Developmental Psychology*, 48(6), 1657-1672.
- Eagly, A. H., & Wood, W. (2012). The origins and implications of sex differences in human social behavior: Evolutionary perspectives. *American psychologist*, 67(6), 460.
- Fisher, C. B. (1977). The changing family: A historical perspective. Family Process, 16(4), 375-390.
- Lamb, M. E. (2004). The role of the father in child development. Wiley.
- Leibenstein, H. (1957). *Economic backwardness and economic growth: Studies in the theory of economic development*. John Wiley & Sons.
- Liu, W., Yu, J., & Xie, Y. (2021). Gender differences in family education investment based on the analysis of multi-child families. 51-63.
- Pleck, J. H. (1977). The changing nature of fatherhood. American Sociological Review, 42(6), 953-972.
- Qi, X. (2013). Parents love education level and children's human capital investment: From Chinese rural families. *Education Academic Monthly*, 9.
- Sun, S., Ren, L., & Tian, Q. (2018). The influence of parental investment on adolescent problem behavior —
   is based on evolutionary psychology. *Journal of Southwest University for Nationalities: Humanities and Social Sciences Edition*, 39(1), 209-214.
- Wang, X. (2007). Evolutionary psychology of investment decision: Expected allocation of private funds and parents' differential energy input of energy to their children. *Psychology*, (3), 406-414.

- Wei, F., & Ren, Y. (2023). Effect of the number of household children on the child education process- analysis based on the dilution effect of education investment. *Journal of Demographic Studies*, 45(3), 1-16.
- Yu, G. (2019). *Rural families* [Unpublished master's thesis, Beijing University of Civil Engineering and Architecture]. Beijing.

# Funding

This research received no external funding.

#### **Conflicts of Interest**

The authors declare no conflict of interest.

## Acknowledgment

This paper is an output of the science project: Analysis of Parental Investment Mode of Multi-child Families in China

# Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).