Empirical research of paternity reward and maternal punishment interacting with other factors in the family education environment

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Abstract: The purpose of this research was to explore the interaction of paternity reward and maternal punishment with other factors in the family education environment. Through the analysis of empirical data, this research found that paternity reward and maternal punishment have significant effects in children's psychological, behavioral and academic development. Furthermore, this research found a significant interaction between factors such as family economic status, parental education level and family atmosphere and paternity reward and maternal punishment.

1. Introduction

1.1. Literature Review

1.1.1. Current Family Structure

Research shows that after the 18th century, in the family structure of Chinese society, the core family accounted for 50%, the direct family accounted for 30%, and the compound family accounted for only 10%. It shows that the social family structure in China is mainly the core family, and it is the mainstream form of social family structure [1]. The core family refers to a family composed of a couple and unmarried children, usually called a "small family" or a "core family".

1.1.2. The Reasons for Paternity Reward and Maternal Punishment

In the feudal society family, due to the right position and knowledge level of the father, the father position in the family education environment, formed the paternity of the children's education [2].

With the change of society and the liberation of thought, the rise of women's status and the development of women's education, China's family education mode is entering the era of "strict mother and loving father". The mother's education expectation, confidence and the cognition of home-school responsibility distribution are the main reasons for the mother's strict and father's position.

Therefore, they often play the role of "disciplinarian" in the family education environment. In

recent years, the paternity role has appeared as the role of "playmate", paying more attention to the parent-child interaction and emotional communication with children, forming a paternity reward role image [3].

1.1.3. Factors of Paternity Reward and Maternal Punishment in the Family Education Environment

Paternal duty reward and maternal duty punishment are also affected by many factors in the family education environment:

From the perspective of dual positions, both father and mother should assume the dual roles of work and family. The limited time and energy of the dual position may make it difficult to complete the transformation of work and family roles, which requires "holding several jobs", leading to the pressure of dual roles, the conflict between work and family and physical and mental exhaustion [4][5][6]. However, because the father's job is the main money in the family, taking care of the family as the assistance, while the mother's position takes care of the family as the director, earning money as the supplement. Therefore, in such a situation, the division of father reward and mother punishment was formed.

From the perspective of maternal position, maternal duty not only needs to assume the responsibility of family care, but also needs to assume the responsibility of the work field, generally under high pressure and low happiness [7]. In addition, the family role is presented as the image of a strict mother. Compared with the father, the maternal role is more likely to cause the tension between children and the double pressure of body and mind.

At the same time, the formation of the mother punishment is affected by two factors, on the one hand, the women of education to improve women's status, on the other hand, the fixed number of year of education also let women get more cognitive and cognitive ability, make it in the aspect of education children also have more knowledge and experience of [3].

From the perspective of parenthood, the formation of the parenthood reward is related to the experience of their father's relationship, age, life goals, the attitude of gender roles, parenting style, participation, and marriage quality, which leads to the [8] of paternity as a reward in the family education environment.

From the perspective of social change, the development of women's liberation movement and women's more formal education have promoted the status of women's families. In addition to having children, the mother also works for earning money. The social evaluation standard of the ideal mother has also changed from the traditional image of "good mother" to the scientific mind, democratic consciousness and the spirit of the new era. This makes the scientific theory of maternal punishment based on [2].

From a sociological point of view, social culture has an influence on the family role of paternity reward and maternal punishment through various ways such as family and education [9].

1.1.4. The Impact of Paternity Reward and Maternal Punishment on Children's Growth

Under the influence of these factors, father's reward and mother's punishment formed the mainstream of The Times, which also brought different degrees of influence to the children today:

From the perspective of paternity, paternity reward plays a special positive impact on the child's physical development speed, intellectual development, social behavior, family role positioning, personality quality cultivation and the shaping of gender role [10][11].

From the point of view of mother's position, mother's job has played a positive impact on children's language ability cultivation and profound and delicate family care in the family education environment, but mother's anxiety, expectation, interference and doting are more serious than father's position [10].

From the perspective of dual positions, paternity reward and maternal duty punishment will affect the child's degree of education, family relationship, life satisfaction, mental activity, self-esteem [8].

1.2. Research Background

Family education is an important link in children's growth, and maternal punishment have a significant impact on children's psychological, behavioral and academic development. However, there is a lack of existing research into the interaction between paternity reward and maternal punishment and other factors. This research aims at revealing the interaction of factors between paternity reward and maternal punishment and family economic status, parental education level and family atmosphere through the analysis of empirical data.

2. Research Process

2.1. Research Method Design

This research used a cross-sectional research design with a random sample of four cities in a Chinese province consisting of 1200 students and their parents. The questionnaire included questions about family background, parenting style, family atmosphere, and more.

2.2. Measurement Tools

Paterenthood reward and maternal punishment: This research used the revised scale, which has 20 items, 10 for paternity reward and 10 for maternal punishment. Each question uses a 5-point scale, ranging from 1 (completely inconsistent) to 5 (very consistent).

Family economic status: family income, housing area, family burden and other indicators are used to comprehensively evaluate the family economic status.

Parents 'education level: use a questionnaire survey to understand their parents' educational background.

Family atmosphere: The revised family atmosphere scale is adopted, which has 15 items, covering the communication, care, support and other aspects among family members.

2.3. Data Analysis

variable	average value	standard deviation	least value	crest value
Fatherly awards	3.25	0.87	1.00	5.00
Madam punishment	2.43	0.95	1.00	5.00
family economic status	4.12	1.22	1.00	7.00
Parents' education level	3.67	0.76	2.00	5.00
family atmosphere	4.53	1.14	1.00	7.00

Table 1: Descriptive statistics

First, descriptive statistical analysis of the survey data, including mean, standard deviation and other indicators. Secondly, a multiple linear regression model was used to analyze the relationship between paternity reward, maternal punishment and family economic status, parental education level, and family atmosphere, and further explore the interaction. The data analysis process was performed using the SPSS 22.0 software.

variable	Fatherly awards	Madam punishment	family economic status	Parents' education level	family atmosphere
Fatherly awards	1.00	-0.32	0.45	0.40	0.48
Madam punishment	-0.32	1.00	-0.35	-0.28	-0.41
family economic status	0.45	-0.35	1.00	0.54	0.58
Parents' education level	0.40	-0.28	0.54	1.00	0.51
family atmosphere	0.48	-0.41	0.58	0.51	1.00

Table 2: Correlation coefficient matrix

 Table 3: Results of the regression analysis

variable	β coefficient	standard error	t price	p price
nodal increment	2.35	0.12	19.2	< 0.001
family economic status	0.28	0.08	3.5	< 0.01
Parents' education level	0.24	0.07	3.3	< 0.01
family atmosphere	-0.33	0.06	-5.4	< 0.001
Interactive item (Economics x education)	0.11	0.05	2.1	< 0.05

 $R^2 = 0.45$

Table 1 presents descriptive statistics, including mean, standard deviation, minimum and maximum values for each variable. Table 2 shows the correlation coefficient matrix, reflecting the linear relationship among the variables. Table 3 presents the results of the regression analysis, including the regression coefficients (β -coefficient), standard errors, t-values, and p-values for each variable. The R² values indicate that the model explained 45% of the variation. Furthermore, this table shows the effect of family economic status, parental education level and family atmosphere on paternity job reward and maternal job punishment, as well as the interaction between family economic status and parental education level.

Together, these three tables reveal the interaction of paternity reward and maternal punishment with other factors. From the correlation coefficient matrix (Table 2), we can see that family economic status, parental education level and family atmosphere are positively associated with paternity reward, but negatively associated with maternal duty punishment. In addition, the results of the regression analysis (Table 3) indicated that family economic status and parental education level had a significant positive effect on paternity reward, while family atmosphere had a significant negative effect on paternity reward. At the same time, the interaction term (the product of family economic status and parental education level) was significant in the model, which indicates an interaction between family economic status and parental education level.

3. Results of the Research

3.1. Conclusion

A survey of 1200 students and their parents in four cities found that family economic status, parental education level and family atmosphere all had significant effects on paternity reward and maternal punishment, and there was an interaction among these factors. In the context of higher family economic status and parental education level, paternity reward is more closely related to maternal job punishment. This finding provides new perspectives for understanding the influencing

factors of parenting styles and provides empirical evidence for promoting the improvement of family parenting styles.

3.2. Discussion

In this research, the family economic status, parental education level and family atmosphere have a significant impact on paternity reward and maternal punishment. Moreover, the finding that family economic status and parental education level interact with the effects of paternity reward and maternal job punishment provides a new perspective on family education. In the context of higher family economic status and parental education level, paternity rewards are more closely related to maternal job punishment, meaning that improving family economic status and improving parental education may help to promote improvements in family education methods to better promote child development.

One of the limitations of this research is the cross-sectional research design, which has difficulty in determining causality. Future researches could employ a longitudinal research design to reveal the dynamics of paternity reward and maternal job punishment during child development and their impact. In addition, this research only focused on some of the factors that may influence paternity reward and maternal job punishment, and future researches can further explore other potential factors, such as family structures, cultural background, and geographical differences.

4. Policy Recommendations

According to the findings of this research, government and society should focus on the influence of family economic status, parental education level and family atmosphere on paternity reward and maternal punishment. Specific recommendations include:

Improve the family economic level: the government can improve the family economic situation through poverty alleviation policies, tax incentives and other measures, so as to create a better environment for family education. At the same time, increasing family income can also help reduce the psychological pressure of parents, so that they have more energy to their children's education.

Improving parents' education level: The government and society should attach importance to adult education, provide parents with opportunities for continuing education, and help them improve their own quality. In addition, various family education training courses and lectures can be organized to guide parents to adopt more scientific education methods.

To create a harmonious family atmosphere: the government, schools and communities should make joint efforts carry out family education guidance services, help parents establish the correct concept of family education, and cultivate healthy communication and parent-child relationship. In addition, family members are encouraged to participate in family activities to enhance mutual understanding and help to create a positive family atmosphere.

Focus on regional and cultural differences: When formulating family education policies, regional and cultural differences should be fully considered to ensure the pertinence and effectiveness of the policies. For example, for the problem of family education in rural areas, we can increase the input of rural educational resources to improve the education level of rural families.

Carry out interdisciplinary research: encourage researchers from psychology, pedagogy, sociology and other disciplines to cooperate, deeply explore the influencing factors and mechanisms of family education mode, and provide a scientific basis for family education policy and practice.

Through the implementation of these policy recommendations, it is expected to promote the rationalization of paternity incentives and maternal job punishment, and create a more growth-friendly family education environment for children.

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