

Exploring Relationships in Parental Differential Treatment, Empathy, and Sibling Relationships

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Abstract

The objective of the research is to examine the connection between parental differential treatment (PDT), empathy, and sibling relationships. The study focuses on investigating the impact of PDT on sibling relationships, with a particular emphasis on the role of empathy as a moderator. In this study, a quantitative research design was used to collect data from one hundred participants. The data was gathered through self-administered standardised questionnaires that focused on perceived parental affection-differential treatment, sibling empathy, and the Sibling Relationship Questionnaire (SRQ). The analyses indicate a strong correlation between these constructs, suggesting that PDT has a significant positive impact on both sibling empathy and overall relationship quality. The results from the mediation analysis indicate that empathy plays a role in influencing the connection between PDT and siblings' relationships. Specifically, individuals with higher levels of empathy may experience less impact from PDT on their sibling relationship. These findings highlight the importance of treating

parents equally and showing empathy within families to enhance sibling relationships. According to the findings of the study, it is advisable to discourage perceived favouritism and instead focus on the importance of empathy in parenting. It is important to analyse these dynamics over time and across various cultures to enhance our understanding of family relationships. This study is significant in the field of family psychology as it offers a more profound insight into the influence of PDT and empathy on communication among siblings and overall family cohesion.

Keywords: Parental Differential Treatment, Sibling Relationships, Empathy, Family Dynamics, Emotional Development.

Introduction

The family environment is characterised by diversity and has a significant impact on individuals' development and social interactions. [Rolan and Marceau \(2018\)](#) highlight the significance of parental differential treatment, empathy, and interactions with siblings in defining family dynamics. Understanding the relationship between these factors is valuable for comprehending family psychology and child development. Parental differential treatment refers to the phenomenon where parents treat their children differently in terms of attention, discipline, nurturing, and support. [Campion - Barr and Killoren \(2015\)](#) argue that punitive discipline is often necessary in families and child care settings due to the unique personalities, needs, and development of children. Nevertheless, it should be noted that significant disparities in parental treatment can have a distorting effect on sibling interactions and individual psychological well-being. Perceived unfairness in parental treatment can lead to the development of jealousies, rivalry, and resentment among siblings. In addition, [Gilligan et al. \(2015\)](#) stated that negative feelings have a detrimental effect on sibling relationships, potentially causing long-term deterioration. However, when parents treat children differently as perceived by the children, it can result in a positive attitude towards fairness compared to actual inequality. This can foster close cooperation and support among siblings. Empathy is a component of emotional intelligence that influences relationships and interactions. It involves the capacity to understand and share the experiences and emotions of others. [Gungordu and Hernandez-Reif \(2022\)](#) have highlighted that empathy plays a role as a moderating variable in the influence of PDT on sibling relationships. Empathetic children possess the ability to comprehend the reasons behind differential treatment and are not prone to experiencing

jealousy or anger. Parental behaviour significantly influences emotional understanding.

Parents who model empathic behaviour and encourage empathic interactions among children contribute to a family environment that promotes understanding and support. Implementing this approach can reduce the adverse effects of PDT and foster better sibling relationships. Sibling relations are among the longest and most impactful relationships individuals have in their lives. They provide opportunities for social interaction, learning, and the development of self-esteem and identity (Souers & Hall, 2018). Cohesive sibling interaction is marked by support, affection, and appreciation, whereas conflict-filled interactions are characterised by rivalry, jealousy, and a lack of appreciation. The quality of sibling relationships is influenced by both PDT and empathy. This study aims to demonstrate that the implementation of a fair treatment policy and the provision of a compassionate home environment by parents can lead to the development of close relationships among siblings. However, varying levels of parental attentiveness can exacerbate sibling rivalry and fighting, without considering the role of sympathy (Mohiuddin, 2022). To simplify, the relationships between PDT, empathy, and sibling bond are intricate and dynamic. The stress caused by PDT can coexist with the facilitation of interactions between siblings, depending on the children's perceptions of the system. Empathy moderates a child's perception and response to differential treatment (McClellan et al., 2024). For instance, when PDT (Parental Differential Treatment) is perceived as justified and empathy is lacking within a family, it is probable that the siblings will develop positive relationships with each other, as they view differential treatment as appropriate and unavoidable.

However, in families where PDT is perceived as unjust or lacking in empathy, differential treatment can intensify rivalry and conflict. One common factor among siblings is the family they are born into, and they also have frequent interactions with their peers. Thus, the presence of siblings plays a crucial role in shaping individuals' development (Truchon, 2015). Studies indicate that the formation of sibling bonds is shaped by various factors, including the dynamics between parents and children, such as how parents treat their children differently and the level of attachment between parents and children, as well as factors unique to the siblings themselves (including empathy, intelligence, and temperament) (Iftikhar & Sajjad, 2023). This paper takes a perspective rooted in social learning theory and

social comparison theory to explain the development of sibling relationships. Firstly, it delves into the influence of empathy on sibling relationships, drawing from social learning theory. Additionally, it explores the impact of differential treatment by parents on sibling relationships, drawing from the social comparison theory. Ultimately, by combining these theories, the paper uncovers the underlying process behind the development of sibling relationships and puts forth relevant hypotheses. The research objectives of this research are.

- To examine the impact of sibling relationships on perceived parental affection differential treatment.
- To investigate the role of sibling empathy in moderating the relationship between sibling relationships and perceived parental affection differential treatment.
- To analyse the direct and indirect effects of sibling relationships on perceived parental affection differential treatment, with sibling empathy as a mediating variable.

Considering the objectives of this research, the following research questions has been formulated.

- How do sibling relationships impact perceived parental affection differential treatment?
- Does sibling empathy moderate the relationship between sibling relationships and perceived parental affection differential treatment?
- What are the direct and indirect effects of sibling relationships on perceived parental affection differential treatment, considering sibling empathy as a mediating variable?

Literature Review

The Concept of Sibling Relationship

The concept of a "sibling relationship" refers to the bond that exists between two or more brothers and/or sisters who are born to the same biological parents within a traditional family unit. In this context, [Howe et al. \(2022\)](#) emphasised the importance of understanding and effectively communicating with others. They highlighted the use of various forms of communication, such as spoken language,

written language, and body language, to exchange a wide range of ideas, emotions, and beliefs. Sibling relationships are essential and stand the test of time as some of the most enduring connections in a person's life. Irrespective of their level of communication, siblings will always be present. Additionally, [Plamondon et al. \(2021\)](#) stated that social learning and interpersonal comparison theories are commonly used to understand the dynamics of sibling relationships. Social learning theory suggests that the sibling relationship is formed through observational imitation and reinforcement learning. Older siblings can provide valuable insights into the cognitive ability and social behaviour of younger siblings. According to social comparison principles, children in families with multiple siblings are aware of the competition for family resources, particularly because of unequal attention and favouritism from parents towards their brothers and sisters. Moreover, according to [McHale et al. \(2016\)](#), rivalry and envy can arise in sibling interactions as a consequence of this phenomenon. Siblings often need to independently resolve conflicts without parental supervision. Furthermore, sibling relationships create a unique environment in which siblings can influence each other's cognition, emotions, and behaviour. The presence of enduring companionship, shared family experiences, and conflicting interests and needs often leads to the development of intense emotional bonds or "love-hate" dynamics.

The development of an individual can be significantly influenced by sibling relationships. The sibling bond is equally important for personal development as the parent-child bond. The influence of sibling interactions on social development differs significantly from that of parental relationships. There are three types of sibling relationships: warm, conflicting, and competitive. Sibling conflict has been found to be a positive predictor of problem behaviours in children and adolescents, including fighting, alcohol abuse, and risky sexual behaviour ([Petalas et al., 2015](#)). Conversely, sibling warmth negatively predicts emotional problems in adolescents. There is a correlation between stronger sibling bonds among adolescents and reduced levels of depression. Warm sibling relationships have a positive impact on adolescents' cognitive development. Adolescents who have strong relationships with their siblings demonstrate greater proficiency in developing practical solutions for typical interpersonal difficulties. Warm sibling relationships are associated with the

development of prosocial behaviours in children (Kramer & Hamilton, 2019). Subsequent research has shown that the conduct of older siblings in early childhood can forecast the future prosocial conduct of younger siblings. Moreover, sibling relationships have a long-lasting impact on the overall quality of life. A 45-year longitudinal study of Harvard graduates found that the quality of sibling relationships was the most important factor in predicting happiness among 65-year-old male alumni (Panchakshari & Siddaraju, 2024). Therefore, it is imperative to acknowledge the significance of sibling relationships in influencing individual behaviour, emotional welfare, prosocial behaviour, and overall life satisfaction.

Empathy and Sibling Relationship

Although there are multiple definitions of empathy, none have gained widespread acceptance. However, the research community has reached a consensus regarding the characteristics of the topic: (1) Empathy is characterised by a focus on others, involving an intuitive response to their emotional state or needs. (2) It also requires emotional congruence, where individuals experience the same or similar emotions as others (Gungordu et al., 2022). Consequently, the prevailing notion suggests that empathy involves a mental mechanism in which a person perceives or imagines another person's emotional state and internalises their feelings. This includes both emotional empathy, which involves experiencing the emotions of others, and intellectual empathy, which involves understanding the emotions of others. The early experiences of playing pranks and pleasing each other among siblings can contribute to the development of empathy. This suggests a potential long-term connection between empathy and sibling relationships (Jambon et al., 2019). Throughout the middle years of childhood, individuals who have nurturing interactions with their siblings often develop stronger empathetic abilities and a greater capacity to understand things from others' perspectives. In addition, studies conducted on American youths aged 7 to 14 have shown that when there is a greater display of fraternal affection and a reduction in sibling rivalry beyond what is considered normal, there is a corresponding increase in the expression of empathy. This was observed after considering the impact of parental behaviour and the quality of the parents' marital relationship (Shivers & Dykens, 2017). Research has also discovered a strong connection

between close relationships among adult sisters and their ability to empathise emotionally and intellectually. It is evident that empathy has an impact on sibling relationships. Furthermore, the connection between sibling warmth and empathy becomes stronger as time goes on.

The social learning theory offers valuable insights into the connection between empathy and the dynamics among siblings. According to [Stern and Cassidy \(2018\)](#), it has been noted that older siblings play a crucial role in influencing the empathic tendencies of their younger siblings, acting as important social mediators. In many cases, older siblings tend to have more knowledge and skills, and they often show more empathy and concern for their younger siblings. Particularly during the early years, younger siblings often mimic and absorb knowledge from their older siblings. As a result, the caring actions exhibited by older siblings have a profound impact on the development of empathy in their younger siblings, ultimately shaping their bond as brothers and sisters. In addition, a study conducted by [Rea et al. \(2022\)](#) found that fostering strong relationships between siblings has a more significant influence on the development of empathy in younger siblings compared to older ones.

The intricate interplay between sibling dynamics and psychological development. Therefore, it is not just older siblings who have an impact on their younger siblings. Sibling interactions are in line with modern socialization theories that highlight the mutual nature of family relationships. In a recent study conducted by [D'Amen et al. \(2021\)](#), it was found that the caregiving abilities of older siblings can be influenced by the characteristics and behaviours of their younger siblings. Younger siblings have the potential to influence and shape the character of their older counterparts, fostering empathy and compassion. Even young children are actively involved in interactions with their parents and siblings by the time they reach their second year of life. Therefore, empirical evidence highlights the significance of older siblings' empathy on younger siblings, while also recognising the effect of younger siblings on their older counterparts. According to social learning theory, the empathetic connection between siblings has a reciprocal effect on their relationship.

Parental Differential Treatment and Sibling Relationships

The bond between parents and children, as well as among siblings, are crucial components of the family structure. Each subsystem, involving parents and siblings, has a significant impact on one another and actively interacts. Personal feelings and actions can impact different aspects of family dynamics. As per the research conducted by [Finzi-Dottan and Cohen \(2018\)](#), emotional fluctuations can be observed not only within individuals but also between them. Research indicates that a solid relationship between parents and their children often results in positive interactions between siblings, regardless of their age. This connection also reduces the likelihood of conflict between siblings. The research centred on families with two children has uncovered differences in the relationships between parents and each child. In addition, [Stocker et al. \(2020\)](#) discovered that the effect on sibling relationships was not linear. The level of closeness between siblings is significantly influenced by a mother's acceptance of a second-born child. Put simply, the initial bond between parents and the eldest child may serve as an indicator for future relationships among siblings. Thus, [Brody et al. \(2017\)](#), analysed that it is clear that parent-child ties do not necessarily predict sibling ties, but rather that parental differential treatment affects them. Parental differential treatment means that parents are directed more toward one child than the other in terms of affection, engagement, or discipline, including the two dimensions of affection (parental preference for children by affection) and discipline (parental preference for children by discipline).

Based on social comparison theory, when children perceive unequal treatment from their parents towards their siblings, it can lead to feelings of frustration and jealousy. Consequently, this can negatively impact their relationships with both their parents and siblings. The negative effects of imbalances within the parent-offspring relationship can have a ripple effect on the dynamics among siblings, leading to weakened bonds between them when parents show disproportionate favouritism ([Hughes et al., 2018](#)). Many studies have found a strong correlation between parental affection and reduced parental control over siblings, which is often seen as a form of parental favouritism. These differences are believed to have significant effects on sibling relationships and personal growth. As an illustration, children who have not

been influenced by negative factors tend to display higher levels of aggression and hostility, experience more conflicts with their siblings, have a harder time adjusting, engage in riskier behaviours, and exhibit fewer prosocial behaviours ([Smorti & Ponti, 2018](#)). Children who perceived preferential treatment from their parents saw a decrease in sibling conflicts and an improvement in their relationships with their siblings. Additionally, they displayed fewer problematic or externalising behaviours. Therefore, when children perceive a preference in affection from their parents, it can strengthen the bond between siblings; however, if they feel that their brothers or sisters are favoured, it can intensify conflicts among them ([Killoren et al., 2015](#)). Therefore, the impact of parents treating their children unequally on the relationship between siblings depends on how aware the children are of these differences.

When analysing the impact of different parental treatments on sibling dynamics, it is important to consider the nature of this differential treatment. [Sahithya et al. \(2019\)](#) identified two dimensions of parental differential treatment: affection and discipline. Research has extensively shown that when parents openly show favouritism towards one child over others, it can result in strained relationships among siblings, especially for those who are not favoured. However, there is an ongoing debate about whether offspring perceive parental favouritism or equality as more beneficial for fostering sibling relationships. Research indicates that parental favouritism is linked to both increased parental affection and decreased control over siblings. These factors are believed to have a significant impact on sibling relationships and individual development. Moreover, according to [Grigoryeva \(2017\)](#), there is a positive correlation between children's perception of parental preference and the quality of their sibling relationship. Nevertheless, the impact of differential parental discipline on sibling relationships remains uncertain. The differential discipline received by one child in families did not consistently lead to family conflicts or problematic behaviour in children. In addition, [Garcia et al. \(2019\)](#) suggested that parental discipline and control may be seen as appropriate parenting strategies for stronger and more mature children. The degree to which parents differentiate their treatment of children based on age or gender can promote warmth and decrease conflict among siblings. Therefore, it is reasonable to treat siblings with specific age

differences differently. The impact of differential parental treatment on sibling relationships in terms of discipline remains uncertain, but it differs significantly from the impact of differential parental treatment in terms of affection.

Mediating Effect of Empathy on the Relationship Between Parental Differential Treatment and Sibling Relationship

The previous discussion indicates that both empathy and parental differential treatment have an impact on sibling relationships. Nevertheless, the possible relationship between them requires additional investigation. A recent study examined sibling relationships among school-age children in China. The study found that although there was no direct correlation between parental differential treatment and sibling relationship quality, children's perception of differential treatment in affection from parents was positively associated with sibling relationship quality. This implies the existence of mediating variables that influence the relationship between parental treatment and sibling dynamics. Empathy is a strong predictor of maintaining intimate relationships, and children's perception of family relationships likely affects their development of empathy. Therefore, it is reasonable to suggest that empathy plays a role in mediating the connection between parental differential treatment and sibling dynamics.

Our hypothesis suggests that sibling empathy acts as a mediator in the relationship between parental affective differential treatment and sibling dynamics. Consistency in parental differential treatment is predicted to enhance the development of sibling empathy and improve the quality of sibling relationships (refer to Figure 1, which illustrates this concept using two-child families as an example).

The process of parental differential treatment in discipline and its impact on sibling relationships is influenced by various factors, including parental affective differential treatment, sibling age difference, and gender combination. Sibling empathy plays a mediating role in this multifaceted process. Children who perceive themselves as favoured by their parents may interpret parental discipline as an expression of love, which can promote empathy development and improve sibling relationships.

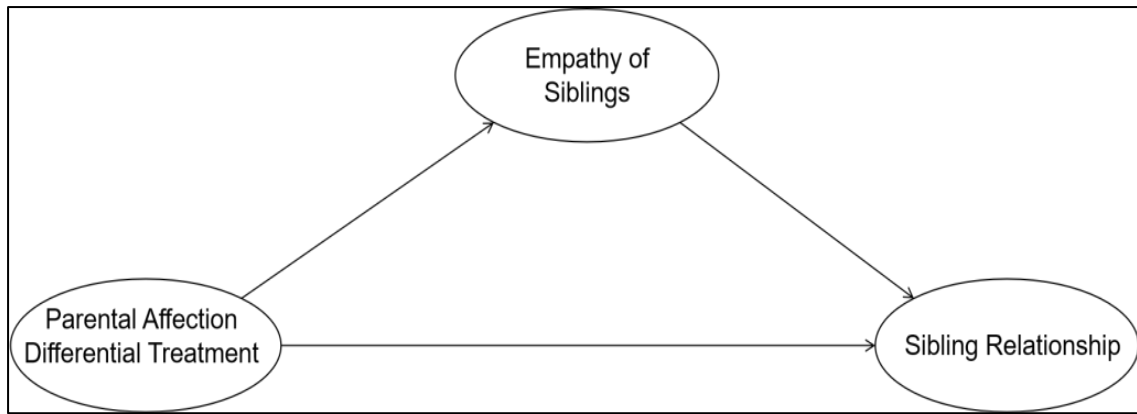


Figure 1. The model of relationship between Parental Affection Differential Treatment, Empathy of Sibling and Sibling Relationship

Conversely, perceived parental neglect can cause children to perceive parental control as a barrier to their natural development, resulting in personal distress and frustration. This can hinder the development of empathy and negatively impact sibling relationships. Furthermore, parental disciplinary styles may differ depending on the ages and genders of siblings. Thus, sibling empathy acts as a mediator between parental differential treatment in affection and discipline, and its influence on sibling relationships, considering age gaps and gender combinations (refer to Figure 2, illustrating this concept using two-child families as an example).

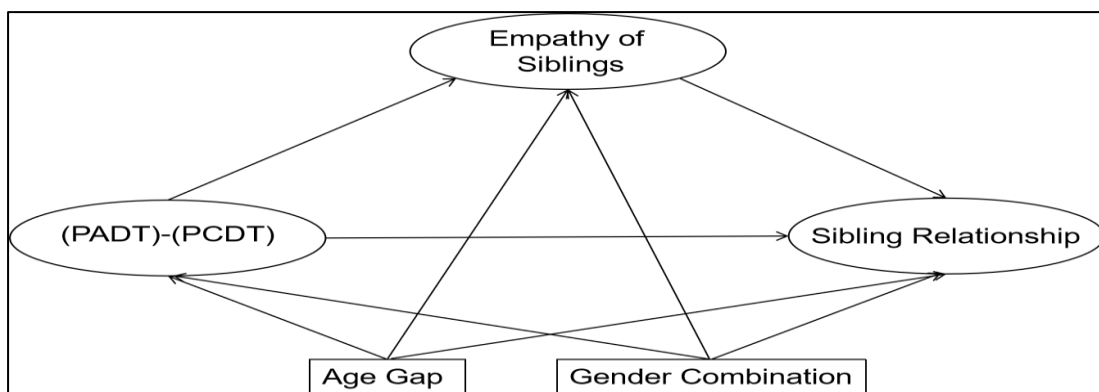


Figure 2. The model of relationship between Parental Differential Treatment by Affection, Parental Differential Treatment by Discipline, Empathy of Sibling, Sibling Relationship, Age Gap and Gender Combination

*PADT refers to parental differential treatment by affection and PCDT refers to parental differential treatment by discipline

Methodology

Research Method

This study employs a quantitative methodology to examine the associations among parental differential treatment, siblings' empathy, and sibling bonds. This quantitative method allows researchers to quantify variables, providing a solid analytical foundation for identifying patterns and trends.

Design

This study is significant as its purpose is to investigate the relationship between the specified variables. The correlational design is particularly useful for investigating the strength and direction of the relationship between variables without controlling them.

Data Collection

The sample consists of 100 purposively selected respondents, aligned with the study's objective. The participants were evenly distributed by gender, with 60 males and 40 females. They were then classified into three age groups: 18-22 years old (38%), 22-26 years old (32%), and 26-30 years old (30%). The participants were required to have at least one sibling and were expected to fall within a specific age range. The data was collected through an online questionnaire completed by the participants. The questionnaire included demographic questions regarding age and gender, as well as three scales designed to estimate the identified variables:

Parental Affection Differential Treatment (PADT) Scale

The scale comprises 5 items that are rated on a Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The measure assesses perceptions of differential levels of affection, quality time, leniency, support, and praise received from parents among siblings.

Empathy of Sibling (ES) Scale

The scale comprises 5 items that are assessed using a Likert scale ranging from

1 (Strongly Disagree) to 5 (Strongly Agree). The assessment measures the degree to which siblings comprehend, assist, and address each other's emotional needs.

Sibling Relationship (SR) Scale

The scale consists of 5 items that are rated on a Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). This study examines the closeness, trust, quality time, conflict resolution, and loyalty in sibling relationships.

The reliability of these scales was confirmed through Cronbach's Alpha, with scores of .932, .934, and .928, indicating high internal consistency.

Data Analysis

The data analysis process consisted of multiple steps to achieve a thorough comprehension of the relationships between the variables. The sample characteristics were described by calculating frequencies, percentages, and cumulative percentages for demographic variables. Cronbach's Alpha was calculated for each scale to assess the reliability of the instruments. Pearson correlation coefficients were computed to analyse the associations among PADT, ES, and SR. The statistical analysis of the correlations was conducted at a significance level of 0.01. The PROCESS macro (Version 4.1) developed by Andrew F. Hayes was used for conducting mediation analysis in SPSS. The study investigated the mediating role of sibling empathy (ES) in the relationship between sibling relationship (SR) and parental affection differential treatment (PADT) using Model 4 of the PROCESS macro. The current study aimed to estimate the direct and indirect effects, as well as the total effect, of SR on PADT, with ES serving as a mediator. Bootstrap confidence intervals were utilised to determine the statistical significance of indirect effects.

Ethical Considerations

To ensure the study was conducted ethically, the necessary approval was obtained from the appropriate institutional review board. Prior to their involvement in the study, the participants provided informed consent. They were provided with

detailed explanations of the study's objectives, emphasising its voluntary nature and assuring them that they could withdraw at any time without facing any repercussions. The participants were guaranteed confidentiality and anonymity to encourage them to provide honest and accurate responses.

Results and Discussion

This chapter seeks to interpret survey data to establish the relationship between various psychosocial factors within the family setting. To tackle these concerns, the analysis focuses on the respondent profile, the reliability of the measurement scale, the relationship between different constructs, and the concept of mediation to provide an explanation for the connections between these variables.

Descriptive Statistics

Table 1: Gender of Respondents

		Gender of Respondents			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	60	60.0	60.0	60.0
	Female	40	40.0	40.0	100.0
	Total	100	100.0	100.0	100

The survey included a total of 100 participants, with 60 of them identifying as male and 40 as female. The distribution of participants shows that there is a higher percentage of males (60%) compared to females (40%). When the female respondents are included, the cumulative percentage adds up to 100%. This clear-cut division emphasises a respondent pool that is predominantly male, although not to an excessive extent, ensuring that both genders are adequately represented in the survey findings.

Table 2: Age Group of Respondents

		Age Group of Respondents			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-22 years old	38	38.0	38.0	38.0
	22-26 years old	32	32.0	32.0	70.0
	26-30 years old	30	30.0	30.0	100.0
	Total	100	100.0	100.0	100

The age distribution of 100 survey respondents reveals that the largest group

consists of individuals aged 18-22, accounting for 38 percent of the total. A significant portion of the population falls within the age range of 22-30 years, with 32% falling between 22-26 years and 30% falling between 26-30 years. The cumulative percentages capture these additions, totalling 100% with the oldest group. This spread indicates that the company's target audiences are fairly evenly distributed among three different age groups, with a slight dominance in the 18-22 age group.

Reliability Analysis

Scale: Parental Affection Differential Treatment

Table 3: Parental Affection Differential Treatment.

Reliability Statistics	
Cronbach's Alpha	No of Items
.932	5

Starting with the measurement of the Parental Affection Differential Treatment scale, we obtained a Cronbach's Alpha of .932. The high alpha value indicates a strong relationship among the items in this scale, suggesting that they measure the same underlying construct. The similarity in responses to these items suggests that this scale effectively assesses the perception of parental favouritism in affection. The scale's high internal consistency ensures that it provides reliable and accurate measurements, making it well-suited for research in this field.

Scale: Empathy of Sibling

Table 4: Empathy of Sibling

Reliability Statistics	
Cronbach's Alpha	No of Items
.934	5

Similarly, the Empathy of Sibling scale demonstrates an impressive Cronbach's Alpha of .934, indicating a strong level of reliability. The internal consistency of the items suggests a strong correlation, indicating that the scale effectively captures the concept of empathy within sibling relationships. The alpha value above .8 suggests that the items are homogeneous and effectively measure empathy between siblings in an academic context. Consistency is crucial when conducting research that aims to

analyse and measure empathy trends in sibling relationships. This ensures confidence in the results produced by the scale.

Scale: Sibling Relationship

Table 5: Sibling Relationship.

Reliability Statistics	
Cronbach's Alpha	No of Items
.928	5

The Sibling Relationship scale also showed strong internal consistency, with a Cronbach Alpha of .928. This indicates that the items that load on this scale are strongly interconnected and, when combined, effectively measure the quality and dynamics of sibling relationships. The level of internal consistency observed in this study is quite promising and indicates that the scale utilised can produce dependable and accurate assessments of the sibling relationship's quality. When it comes to researching different aspects of sibling relationships and their impact, having reliable information is truly invaluable.

Overall, the study revealed that all three scales demonstrated strong reliability in terms of internal consistency, as indicated by Cronbach alpha coefficients exceeding .92. This suggests that the items within the scales effectively measured the intended constructs. These scales are ideal for research purposes or for assessing parental affection, sibling empathy, and the current sibling relationship.

Correlation Analysis

Table 6: Correlations

		Correlations		
		Parental Affection Differential Treatment	Empathy of Sibling	Sibling Relationship
Parental Affection Differential Treatment	Pearson Correlation	1	.931**	.936**
	Sig. (2-tailed)		.000	.000
	N	100	100	100
Empathy of Sibling	Pearson Correlation	.931**	1	.934**
	Sig. (2-tailed)	.000		.000
	N	100	100	100
Sibling Relationship	Pearson Correlation	.936**	.934**	1
	Sig. (2-tailed)	.000	.000	
	N	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis reveals robust and statistically significant associations among the three scales. The variables Parental Affection Differential Treatment, Empathy of Sibling, and Sibling Relationship exhibit a positive and significant correlation with each other at a significance level of 0.01 (2-tailed). The study found a strong positive correlation between Parental Affection Differential Treatment and Empathy of Sibling ($r = .931$) as well as Sibling Relationship ($r = .936$). The study found a strong correlation ($r = .934$) between empathy of siblings and the quality of their sibling relationship. This suggests that higher levels of empathy are linked to more positive sibling relationships.

The high correlations, all above .93, emphasise the significant interconnections among parental treatment, sibling empathy, and sibling relationship quality. These findings indicate that parental differential treatment has a significant impact on sibling empathy and the overall quality of their relationships.

Mediation Analysis

Table 7: Mediation Analysis

PROCESS Procedure for SPSS version 4.1	
Written by Andrew F. Hayes, PhD	www.afhayes.com
Documentation available in Hayes (2022)	www.guilfor.com/p/hayes3
Model	4
Y	PADT
X	SR
M	ES
Sample Size	100
OUTCOME VARIABLE	ES

Model Summary						
R	R-sq	MSE	F	df1	df2	p
.9342	.8727	.1373	672.0587	1.0000	98.0000	.0000

Model						
coeff	se	t	p	LLCI	ULCI	SR
constant	.2514	.1401	1.7946	.0758	-.0266	.5294
	.9340	.0360	25.9241	.0000	.8625	1.0055

Direct and indirect effects of X on Y					
Effect	se	t	p	LLCI	ULCI
.5085	.0862	5.8960	.0000	.3373	.6796

Indirect effect(s) of X on Y				
Effect	BootSE	BootLLCI	BootULCI	
ES	.3949	.0955	.1952	.5666

ANALYSIS NOTES AND ERRORS	
Level of confidence for all confidence intervals in output	95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals	5000
Outcome variable	PADT

Model Summary						
R	R-sq	MSE	F	df1	df2	P
.9494	.9014	.1001	443.1631	2.0000	97.0000	.0000

Model							
coeff	se	t	p	LLCI	ULCI	SR	ES
constant	.2440	.1216	2.0066	.0476	.0027	.4853	
	.4228	.0863	4.9022	.0000	.2516	.5940	

The mediation analysis utilised the PROCESS procedure to investigate the potential mediating role of Empathy of Sibling (ES) in the relationship between Sibling Relationship (SR) and Parental Affection Differential Treatment (PADT). The analysis was conducted on a sample size of 100. The study first examined the relationship between SR and ES. The model summary shows a strong relationship with an R-squared of .8727, indicating that 87.27% of the variance in ES is explained by SR. The coefficient for SR is .9340, with a t-value of 25.9241 ($p < .0000$), indicating a highly significant effect. Next, the model assessing the direct effects of SR and ES on PADT was analysed. This model has an R-squared of .9014, indicating that 90.14% of the variance in PADT is explained by SR and ES together. Both SR (coefficient = .5085, $t = 5.8960$, $p < .0000$) and ES (coefficient = .4228, $t = 4.9022$, $p < .0000$) have significant positive effects on PADT.

The direct effect of SR on PADT is significant (coefficient = .5085, $p < .0000$). The indirect effect of SR on PADT through ES is also significant, with a bootstrapped coefficient of .3949 and a 95% confidence interval that does not include zero (BootLLCI = .1952, BootULCI = .5666). The results indicate that ES plays a role in mediating the association between SR and PADT. The study found that SR have a direct impact on PADT. This effect is partially mediated by ES, suggesting that stronger sibling relationships lead to increased empathy, which in turn decreases perceived differential parental affection.

Discussion

The study findings indicate that the measurement scales used in the survey

have high reliability, as evidenced by Cronbach's Alpha values exceeding .92 for all three scales: Parental Love, Favouritism, Sibling Understanding, and Sibling Bond. The high internal consistency of the scales indicates their strong development and their ability to accurately measure the intended constructs. [Jeannin and Van Leeuwen \(2015\)](#) defined parental affection differential treatment as variations in parental love, care, and support towards their children. The impact of this can significantly affect sibling relationships and the emotional development of children. When a child perceives unequal treatment in terms of affection, love, or encouragement compared to their sibling, they may experience emotions such as jealousy, resentment, or feelings of inadequacy. Emotions can negatively impact the sibling bond, potentially resulting in rivalry and conflict. [Brown et al. \(2015\)](#) suggest that a sibling's level of empathy can play a significant role in moderating the impact of PADT. An empathetic sibling who can understand and respond to their brother or sister's emotions and needs can effectively decrease feelings of rejection and foster affection. Empathy involves recognising and providing support for diverse treatment, which enhances the sense of unity among individuals despite variations in parental affection. [Hajal and Paley \(2020\)](#) argue that empathetic behaviour can mitigate the negative consequences of Parental Alienation and Divorce Trauma (PADT) and foster a positive sibling relationship. The emotional well-being of an individual can be influenced by the sibling relationships within the framework of PADT. Positive and supportive sibling relationships contribute to children's sense of competence and reciprocity, providing them with a sense of security when their relationships with their parents are unequal. Continuous negative social dynamics can exacerbate negativity and competition, leading to chronic relational dysfunctions.

The study findings demonstrate a positive and significant relationship between parental affection differential treatment, empathy of sibling, and sibling relationship quality. The correlations observed in this study, all of which exceed 0.93, indicate that differential parental treatment has a significant impact on sibling empathy and the overall quality of sibling relationships. Mediation analysis suggests that empathy in sibling relationships partially mediates the association between sibling relationship quality and perceived differential parenting. [Rolan et al. \(2018\)](#) found that parental

affection and favouritism have an impact on sibling relationships and the empathy of siblings. Favouritism refers to the intentional or unintentional differential treatment of children based on factors such as age, gender, temperament, or personal preference. This intervention has the potential to impact the dynamics of the sibling relationship and their perception of empathy. [Liu and Rahman \(2022\)](#) have identified that this leads to jealousy and competition among children who perceive unequal levels of parental love. On the other hand, the less favoured child may experience low self-esteem and exhibit hostility towards their sibling. Negative emotions can have a detrimental effect on the quality of sibling relationships and lead to conflicts and a lack of cooperation. Nevertheless, the siblings' empathy plays a crucial role in moderating these effects. Empathy, which involves the capacity to relate to another person, can help siblings comprehend variations in treatment. Also, [Mota and Matos \(2015\)](#) observed that siblings with high levels of empathy tend to protect each other, which helps to mitigate the negative impact of unequal parental attention. A compassionate sibling will seek out their lonely brother or sister and ensure their inclusion in all activities, fostering a close friendship. The quality of the sibling relationship is influenced by the way parents treat their children and the empathetic responses of the siblings. Strong sibling bonds characterised by solidarity, empathy, and positive regard can serve as a protective factor against the negative effects of perceived favouritism.

Conclusion

In conclusion, this study highlights the connection between how parents treat their children differently, the ability to understand and share others' feelings, and the bond between siblings. The study highlights the importance of empathy in mitigating the negative effects of PDT and emphasises the need for fair treatment from parents. Parents can enhance the interaction between their children and improve their emotional health by using empathy and being aware of fairness. Further research should explore these dynamics in different cultural and familial contexts to expand upon these findings and apply the acquired knowledge in real-world settings. The findings provide insights into the impact of parental differential treatment (PDT) on

the sibling relationship and highlight the role of empathy in influencing this connection. The study's findings highlight the strong reliability of the measurement scales used to assess parental affection differential treatment, sibling empathy, and sibling relationship. This is supported by the high Cronbach's Alpha coefficients of .92 for all scales. The strong correlations of these constructs, all of which are above .93, suggest that parental treatment has a significant impact on both sibling empathy and the overall quality of the sibling relationship. This study provides evidence for the theories of social learning and social comparison, which suggest that children's treatment of their siblings is influenced by their perceptions of parental fairness and their ability to empathise. Specifically, an analysis conducted reveals that the empathy of siblings plays a role in explaining the connection between SIBREL and PDI. Having stronger bonds with siblings can enhance empathy and lead to a decrease in the perception of unequal parental affection. This mediation highlights the significance of empathy in protecting the sibling relationship from potential negative impacts of PDT.

Implications

The research findings have significant implications for family relations, parental practices, and child development. First and foremost, it highlights the importance of parents being aware of how their children perceive unequal treatment. Therefore, when differentiating between young individuals based on age, temperament, or needs, it can lead to a sense of unfairness that fosters competitiveness, jealousy, and hostility among siblings. Thus, in order to ensure fair treatment, parents should strive to give equal attention and care to all their children, avoiding any favouritism. Secondly, the research highlights the importance of fostering empathy within the family setting. Encouraging positive outcomes of PDT can be accomplished by parents who demonstrate empathy and promote empathetic interactions among children. Children who possess empathy tend to be more capable of accepting different treatment, resulting in fewer negative emotions and conflicts. This highlights the importance of incorporating empathy training and emotional intelligence in parenting programs.

Future Directions

The study outlines various avenues for future research. Firstly, conducting additional longitudinal research would be beneficial to gain a deeper understanding of the long-term effects of the PDT and sibling empathy on sibling relationships. Understanding how these dynamics evolve would offer a more comprehensive outlook on their role in human development and maintaining family cohesion. Additionally, further research could explore the potential impact of cultural factors on the perception of PDT and empathy. Parenting practices and sibling interactions are influenced by cultural norms and values. Examining these variations may contribute to broadening the relevance of the results and creating programmes that are culturally suitable. However, the study could be extended to include larger samples of families with diverse structures. Family dynamics can differ in various types of families, such as single parent families, stepfamilies, or families with multiple children, in comparison to the traditional two-parent, two children's families. These variations could potentially enhance our comprehension of familial dynamics.

Practical Applications

The study's findings can be valuable for professionals in the fields of family therapy, counselling, and education. Efforts to enhance sibling relationships should prioritise understanding the impact of perceived favouritism and fostering empathy among siblings. It would be beneficial to have programmes that educate parents about the impacts of PDT and how to handle it in a fair manner. In addition, incorporating empathy-building activities into family therapy and educational processes can enhance the overall quality of relationships among siblings and family members.

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