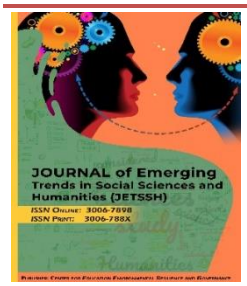

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The Unseen Sibling: Parental Differential Treatment, Sibling Relationship Quality, Self-Esteem, and Emotional-Behavioral Problems among Siblings of Children with Special Needs

Adan Amir[1] Afya Afzal[2] Hafsa Kashif[3] Sana Zaheer[4]

[1] University of Management and Technology, Lahore, Punjab, Pakistan.

[2] University of Management and Technology, Lahore, Punjab, Pakistan.

[3] University of Management and Technology, Lahore, Punjab, Pakistan.

[4] Lecture, Department of Clinical Psychology, University of Management and Technology, Lahore, Punjab, Pakistan.

Corresponding Author: Sana Zaheer, **Email:** sana.zaheer@umt.edu.pk

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ABSTRACT

This study aims to examine the relationship between parental differential treatment, sibling relationship quality, self-esteem and emotional-behavioral problems in siblings of children with special needs. The research design was a cross-sectional correlational study. Purposive sampling was used to choose 125 adolescents (males f=50 and females f=75) between the ages 12 and 18 years from private schools in Lahore. Four standardized scales were used to gather information: Sibling Inventory of Differential Experience - Revised (SIDE-R) (Daniels & Plomin, 1985), Sibling Relationship Questionnaire (SRQ) (Furman & Buhrmester, 1985), Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965), and Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997). The Pearson Product Moment Correlation demonstrate that differential control was positively related to sibling relationship quality and negatively related to emotional-behavioral problems and self-esteem. A limitation of the study is the use of cross-sectional research design, which limits causal interpretation. Overall, findings emphasize the importance of family dynamics; particularly parental treatment and sibling relationships in shaping adolescents emotional and behavioral adjustment.

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Introduction

Love, attention and care may not be equally shared among the family members, which is known as Parental Differential Treatment (PDT) (Daniels & Plomin, 1985). This imbalance can be exacerbated in the families of children with special needs: caring for the child with additional needs can lead to parents' increased focus on that special need. Siblings, especially teens, may then become emotionally complex due to feelings of affection for their sibling and in unequal attention to their sibling.

Sibling children of children with special needs are in a psychologically vulnerable position but remain unrecognized. They may become empathetic and mature, nurturing, but they can also be jealous, feel guilty, may become confused, may feel neglected (Sharma & Khan, 2023). Such mixed emotions are highly influenced by the amount of parental resources (time, love, discipline, etc.) that are provided and received in the family system.

These influences are also played out in collectivist cultures like Pakistan, where family relations and gender roles/cultural norms play a role. The girls are expected to attend to themselves, boys to make good of themselves and boys are disciplined to be cool with their emotions. These roles impact siblings' experiences of parent behaviours and emotional responses to family dynamics (Hussain et al., 2023). Also, cultural norms might hinder the expression of emotional struggles which can lead to greater internalised emotions from siblings.

PDT is related very strongly to the warmth, closeness and sibling conflict of sibling relationships and how equitable one feels the sibling relationship is. Parental equity in how parents treat siblings is a factor that can cause sibling relationships to be supportive and empathetic or strained and distant (Buhrmester & Furman, 1990). Family members may be compared, be emotionally adjusting and have shared experiences of caring for a child with special needs which can impact these relationships.

One of the significant outcomes of family relationships is the person's overall judgement about his/her worth or value, or self-esteem (Rosenberg, 1965). When adolescents feel less valued or less adequate, especially if they feel their parents' love and care is conditional or unevenly distributed, it can lead them to feel less valued or less adequate. Additionally, cultural norms in Pakistan may encourage emotional suppression, resulting in reduced self-expression and self-esteem, especially as children might feel guilty for seeking attention.

These experiences can lead to emotional and behavioral issues over time, such as internalizing (feeling anxious, withdrawn, etc.) and externalizing (acting aggressive, defiant, etc.) behaviors (Goodman, 1997). In most cases, these are not behaviors but are a consequence of emotional needs that have gone unmet and a lack of balance in the family.

The biopsychosocial framework explains these results, suggesting that the results stem from a combination of biological vulnerability, perceived fairness, and attitudes in the sociocultural context of disability and emotional expression. Some siblings have emotional distress which lasts – this is related to how the family communicates and feels supported and emotionally mature.

In sum, the parent differential treatment, sibling relationship quality, self-esteem and emotional–behavioral problems are all interdependent constructs that have an impact on sibling psychological adjustment of children with special needs. To design family-based interventions to foster emotional equity, better sibling relationships and healthy psychological functioning, it is crucial to understand these dynamics.

Literature Review

Differential Control, Differential Affection, and Quality of Sibling Relationship

There is a good correlation between siblings and Parental Differential Treatment (PDT) as Differential Control (DC) and Differential Affection (DA). DC is a measure of parenting differences in the discipline and behaviour regulation of children, and DA is a measure of parental differences in emotional support and warmth.

Empirical studies repeatedly have found a relationship between higher DC and lower sibling

warmth due to feelings of unfair discipline that leads to resentment and emotional distance between siblings (e.g., Brody et al., 2020; Schneider et al., 2021). For instance, Brody et al. (2021) found over the course of time that high maternal and paternal DC was associated with decreased sibling closeness. Siblings' emotional closeness and warmth, on the other hand, is positively related to DA, while the perceived favoritism of another sibling may be positively associated with their own feelings of relational distress (Meunier et al., 2019; Jensen et al., 2023). The results are also consistent with those from other countries such as Turkey (Yilmaz & Kara, 2023) and India (Sharma & Gupta, 2022) which both reported that perceived inequity in affection is another important factor affecting low sibling cohesion.

Differential Control, Differential Affection and Self-Esteem

DC and DA have an impact on adolescent self-esteem. The connection between perceived DC and self-esteem is also backed by research findings of the Rosenberg Self-Esteem Scale (RSES) showing that the higher the perceived DC, the lower the self-esteem; and that adolescents will perceive high discipline as less important to them (Brody et al., 2020; Rossi et al., 2023). Similarly, one's self-esteem is also greatly influenced by DA. Consequently, it has been proven that when adolescents believe that their families are warm, they will have an increase in their self-esteem, but on the contrary, when they feel that their families are less warm, then their self-esteem and self-acceptance will decrease (López & Rivera, 2022). In addition, a longitudinal study by Brody et al., (2020) found that parent reports of inequitable treatment of their child over time were positively correlated with children's self-esteem, especially in early adolescence.

Differential Control, Differential Affection and Emotional-Behavioral Problems

DC and DA have been the subject of numerous studies to establish their links with emotional and behavioural problems as measured by the Strengths and Difficulties Questionnaire (SDQ). A positive correlation between the severity of the externalizing problems such as aggression, conduct disorders and the severity of the internalizing problems such as anxiety and depression with DC (Goodman, 1997; Patel & Singh, 2024). For example, Jensen et al. (2020) found that perceived DC is related to distress and behavioral dysregulation among adolescents.

The situation is more complicated with DA, and more problems are reported in the non-favored sibling if the favored sibling has a high DA while more problems are reported in the favored sibling if the non-favored sibling has a high DA (Eisenhower et al., 2015; Hastings & Taunt, 2002). The validity of DC and DA was conducted by Jiang et al. (2025) in a meta-analysis in various cultures.

Sibling Relationship Quality and Self-Esteem

Measures of self-esteem have high correlation with the degree of sibling relations as assessed by the Sibling Relationship Questionnaire (SRQ).

Buhrmester & Furman, 1990 and Smith & Greenberg, 2018 reported positive relationships between higher levels of sibling warmth and higher levels of self-esteem and negative relationships between higher levels of sibling conflict and lower levels of self-esteem. Moreover, McHale & Crouter (2019) conducted another study which showed that the more warmth the adolescents received from siblings, the higher their self-esteem was.

Quality of Sibling Relationship and Emotional-Behavioral Problems

Emotional and behavioural problems are related to poor relationships with siblings. The results of the studies indicate that there is a positive correlation between sibling warmth and the low levels of internalizing problems and externalizing problems, and a negative correlation between sibling conflict and psychological distress (Rodrigues et al., 2021; Arslan & Demir, 2022). For instance, in one study, Arslan & Demir (2022) concluded that sibling warmth was one of the factors which predicted lower SDQ scores in anxiety and conduct problem. Similarly, Rodrigues et al. (2021) revealed a link between low sibling support and youths' emotional problems.

Self-Esteem and Emotional-Behavioral Problems

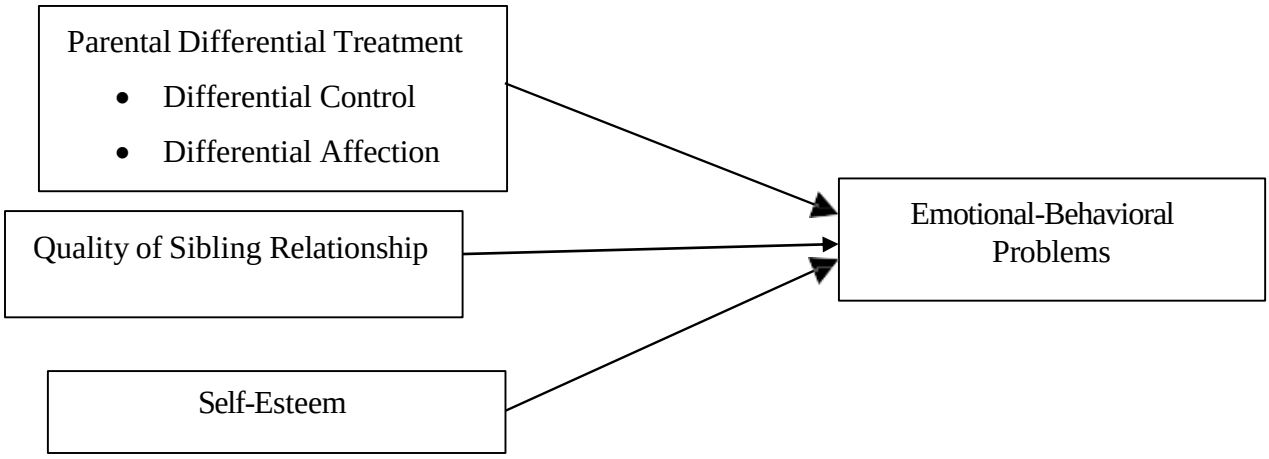
Self-esteem is an important factor in emotional

adjustment. There is a strong relationship between low self-esteem and increased emotional and behavioral issues—such as anxiety, depression, aggression, and withdrawal (Wu & Lam, 2020).

Research with RSES and SDQ indicates that self-esteem can directly impact adjustment outcomes, as well as functioning as a mediator between family functioning and psychological well-being (Ahmed et al., 2021; Smith & Greenberg, 2018).

Conceptual Framework

Figure 1: *Hypothetical model*



Hypotheses

It is hypothesized that:

H1: Differential Control, Differential Affection, Quality of Sibling Relationship, Self-Esteem and Emotional-Behavioral Problems will be significantly related to each other among siblings of children with special needs.

H2: Emotional-Behavioral Problems will be positively correlated with Differential Control, while Quality of Sibling Relationship and Self-Esteem will be negatively correlated with Differential Control.

H3: Differential Affection will be positively correlated with Quality of Sibling Relationship and negatively correlated with Emotional-Behavioral Problems and self-esteem.

H4: Emotional-Behavioral Problems will be negatively correlated with Quality of Sibling Relationship and self-esteem.

H5: Differential Control will be positive predictor while Differential Affection, Quality of Sibling Relationship and Self-Esteem will be negative predictors of Emotional-Behavioral Problems.

Methods

Research Design and Sample

This study used a cross-sectional correlational research design which determines the relationship between variables at a single time. It assists researchers to learn the relationship among variables without modifying or controlling them (Creswell and Creswell, 2018). For this study, a purposive sampling strategy was used to choose participants who matched the study's criteria. Participants are chosen in which they possess certain characteristics that are of significance in the study (Etikan et al., 2016). The sample consisted of 125 adolescents aged between 12 and 18 years in the private schools of Lahore participated in study.

Inclusion and exclusion criteria

The study includes adolescents aged between 12–18 years, studying in private schools of Lahore; able to understand English and having at least one neurodevelopmental disorder affected sibling. While students from government schools and adolescents who did not have a sibling with physical and psychological illness were excluded from the study.

Measures

The questionnaire had two parts: a demographic information sheet and four standardized scales.

The demographic sheet asked about each participant's age, gender, grade, birth order, family type (nuclear or joint), number of siblings, parental education, and marital status. This also involved questions about the involvement in caring for the child, whether the child was ill or whether there was a history of mental illness in the family.

Parental Differential Treatment was assessed using the Sibling Inventory of Differential Experience–Revised (SIDE-R) developed by Daniels and Plomin (1985). This scale is a measure of the perceived difference in parental warmth, affection and discipline by the sibling in English language. In this study, the two subscales "Differential Control" containing items and "Differential Affection" containing items were used, rated on a 5-point Likert scale (1 = Not at all true to 5 = Very true). The Cronbachs 2 for the English version ranged between .71 and .86 indicating reliable internal measurement within samples (Daniels & Plomin, 1985; Zhang & Plomin, 2018), and were satisfactory in this case.

The Sibling Relationship Questionnaire (SRQ) designed by Furman and Buhrmester (1985) was used to assess the Quality of Sibling Relationship. The scale consits of two subscales; Warmth/Closeness and Relative Status/Power. Only the Warmth/Closeness subscale (prosocial, affection, companionship, similarity, intimacy, admiration for Sibling, admiration by sibling) of the English version was used, consisting of 21 items rated on a 5-point Likert scale (1 = Hardly at all to 5 = Extremely much). The internal consistency of the English SRQ has been previously demonstrated as high, with a Cronbach 0.83 to 0.93 of the Warmth/Closeness items (Adamis, Tsamparli, and Talanti, 2017; Stoneman, 2022).

Self-esteem was measured using the English version of the Rosenberg Self-Esteem Scale (RSES) developed by Rosenberg (1965). This is a 10-item scale, whose Likert scale goes up to 4 (1 = Strongly disagree to 4 = Strongly agree) and the higher the score is, the higher the self-esteem. Reverse coded items are 2,5,6,8 and 9. According to the English version, the RSES has demonstrated high reliability in different groups of people with Cronbach 80 being generally reported to range between .75 and 89 (Supple et al., 2023; Tafarodi and Swann, 2021).

Emotional and behavioral problems were measured using the Strengths and Difficulties Questionnaire (SDQ) developed by Goodman (1997). They used the English version, and under the two Emotional and Behavioral subscales, comprising 10 items evaluated on a 3-point Likert scale (0= Not true, 1= Somewhat true, 2= Certainly true). These scores are higher and show that there are more emotional and behavioral problems. The SDQ has demonstrated good reliability in the English language with Cronbach alpha values ranging between.70 and.83 among adolescent samples (Goodman, 2001; Stone et al., 2010).

Procedure

The study involved Departmental permission, consent for use of standardized

Scales used in the study was obtained from the original authors. Furthermore, the permission was obtained from heads of the private schools in Lahore from where the data was collected. After obtaining permission from institutions, participants were also requested to give their consent after explaining the purpose, objectives and nature of the study in simple and understandable language. Initially, the questionnaires were tested on a limited number of adolescents, to make sure that the instructions and items were understandable. After the pilot study, the main data collection followed the same process since there were no significant challenges. The process took about 20–25 minutes for each group. Ethical considerations were maintained throughout the study. Data were used only for academic purposes. On the completion of the questionnaires, a brief debriefing was done by explaining the real purpose of the study and its significance, and participants were given the appropriate credit to cooperate. All 125 distributed questionnaires were return complete, resulting in response rate of 100%. Finally, the data that were collected were entered into statistical software IBM-SPSS Statistics to carry out analysis. Demographic information was summarized using descriptive statistics. The

Pearson correlation was applied to establish the relationships between parental differential treatment, sibling relationship quality, self-esteem, and emotional and behavioral problems.

Results

Section 1: Sample Description

Descriptive Analysis

In this section frequency and percentage of categorical variables while mean and standard deviation of continuous variables, is identified. Furthermore, normality of data set is checked through the values of skewness and kurtosis.

Table 1: *Frequency and Percentage of Sociodemographic Variables of Participants (N = 125)*

Variables	***f***	***%***
Gender		
Male	50	40
Female	75	60
Relationship to special needs children		
Older Sibling	59	47.2
Younger Sibling	66	52.8
Neurodevelopmental disorders in sibling		
Intellectual Disabilities	36	28.8
Impairment in Vision	11	8.8
Impairment in Speech	29	23.2
Impairment in Hearing	9	7.2
Autism Spectrum Disorder	26	20.8
Specific Learning Disorder	14	11.2
Family System		
Nuclear Family	63	50.4
Joint Family	62	49.6
Parents Marital Status		
Divorced	2	1.6
Separated	16	12.8
Widowed	5	4.0
Living Together	102	81.6
Parents Education Level		
Illiterate	2	1.6
Primary Middle School	26	20.8
Matric	61	48.8
Graduate/Professional	36	28.8
Caregiving Help		
Yes	121	96.8
No	4	3.2

Chronic Illness		
Yes	5	4.0
No	120	96
Psychological Illness		
Yes	3	2.4
No	122	97.6
Family history of Mental Illness		
Yes	16	12.8
No	109	87.2

Note. *f* = frequency, *%* = percentage

The demographic features of the 125 siblings of children with special needs are covered in tale 1. The majority of participants were female (60%) and younger siblings (52.8%). The most frequent disabilities reported for the special-needs children were intellectual disability (28.8%), speech impairment (23.2%) and autism spectrum disorder (20.8%). Nuclear (50.4%) and joint family systems (49.6%) were almost equally distributed among the participants. The majority of parents were living together (81.6%) and the majority had some secondary level education (48.8%). Most participants were involved in care (96.8%); few were chronically ill (4%) or suffering from psychological illness (2.4%) or a family history of mental illness (12.8%).

Mean and Standard Deviation

Table 2: *Means and Standard Deviations of Demographic Variables*

Variables	***M***	***SD***
Age	15.54	1.52
School Grade	9.12	1.52

Note. *M* = Mean, *SD* = Standard Deviation

The table indicates that the mean age of the participants consisted of 15.54 years (SD = 1.52), which is in the middle-adolescence age range, and the mean school grade was 9.12 (SD = 1.52), which is in the middle to secondary school years.

Normality Analysis

Table 3: *Skewness, Kurtosis and 5 % Trimmed Mean for Sibling Inventory of Differential Experience Scale, Sibling Relationship Quality Scale, Rosenberg Self-Esteem Scale and Strength and Difficulty Questionnaire(N=125)*

Variables	*M*	*SD*	5% Trimmed Mean	Skewness	Kurtosis
Differential Control	12.22	2.40	12.21	.19	-.03
Differential Affection	16.32	2.53	16.3	.18	-.55
SRQ	68.29	10.03	68.23	.31	1.7
RSE	22.77	3.66	22.9	-.42	0.7
SDQ	8.03	2.76	7.9	.30	-.16

Note. *M*= Mean, *SD*= Standard Deviation, *SRQ*= Sibling Relationship Quality Scale, *RSE*= Rosenberg Self-

Esteem Scale, *SDQ*= Strength and Difficulty Questionnaire

The above table represents the values of the skewness and kurtosis of differential control, differential affection, quality of sibling relationship, self-esteem and Emotional-behavioral Problems. The findings show that all variables are within the acceptable range of ±3 in the skewness and kurtosis. This indicates that the data is almost normally distributed and satisfies the assumptions to perform parametric statistical analysis like correlation.

Section II: Establishing Psychometric Properties

In this section, the psychometric properties of scales are checked to measure the reliability of scales. Through internal consistency, reliability of the scales is tested.

Table 4: *Reliability Analysis of Sibling Inventory of Differential Experience Scale, Sibling Relationship Quality Scale, Rosenberg Self-Esteem Scale and Strength and Difficulty Questionnaire (N=125)*

Variables	***M***	***SD***	**Range**	***a***
Differential Control	12.22	2.40	6-18	0.62
Differential Affection	16.23	2.53	12-23	0.60
SRQ	68.3	10.03	45-111	0.73
RSE	22.87	3.7	13-32	0.64
SDQ	8.03	2.76	3-17	0.61

Note. *α*= Cronbach's alpha, *SIODE*=Sibling Inventory of Differential Experience Scale, *SRQ*= Sibling Relationship Quality Scale, *RSE*= Rosenberg Self-Esteem Scale, *SDQ*= Strength and Difficulty Questionnaire

According to Cronbach's alpha guidelines**,** values around 0.60 are considered acceptable, while values of 0.70 and above indicate good reliability (Howard, 2018). Therefore, all scales in the present study are considered acceptable (0.6), with SRQ showing comparatively stronger reliability (0.7).

Section III: Testing Main Hypotheses

Correlation Analysis

The main hypothesis is to check the relationship between study variables by Pearson correlation. Pearson correlation is used to check the relationship between Parental Differential Treatment, Quality of Sibling Relationship, Self-Esteem and Emotional-Behavioral Problems. However, regression analysis is used to check the predictors of psychological distress.

Table 5: *Inter-correlations among Parental Differential Treatment, Quality of Sibling Relationship, Self-Esteem and Emotional-Behavioral Problems in Siblings of Children with Special Needs (N=125)*

Variables	***M***	***SD***	**1**	**2**	**3**	**4**	**5**
Differential Control	12.22	2.40	-	-	-	-	-
Differential Affection	16.32	2.53	.337**	-	-	-	-
SRQ	68.29	10.03	.200*	-.058	-	-	-
RSE	22.77	3.66	-.365*	-.173	-.453**	-	-
SDQ	8.03	2.76	-.177*	-.112	-.268**	.231**	-

Note. *SIODE*=Sibling Inventory of Differential Experience Scale, *SRQ*= Sibling Relationship Quality Scale, *RSE*= Rosenberg Self-Esteem Scale, *SDQ*= Strength and Difficulty Questionnaire

*$p < .05$, **$p < .01$, ***$p < .001$.

The Pearson correlation analysis was performed to analyze the relationships between Differential

Control, Differential Affection, Quality of Sibling Relationship, Self-Esteem and Emotional-Behavioral Problems. Differential Control significantly correlated with Quality of Sibling Relationship ($r = .20$, $p < .05$) and significantly correlated with Self-Esteem ($r = –.37$, $p < .05$) and Emotional-Behavioral Problems ($r = –.18$, $p < .05$). No significant correlations were found between Differential Affection and Quality of Sibling Relationship ($p > .05$) or Self-Esteem ($p > .05$) or Emotional-Behavioral Problems ($p > .05$). There were significant negative relationships between Quality of Sibling Relationship and Self-Esteem ($r = –.45$, $p < .01$) and Emotional-Behavioral Problems ($r = –.27$, $p < .01$). Additionally, there was a strong positive correlation between Self-Esteem and Emotional-Behavioral Problems ($r = .23$, $p < .01$).

Regression Analysis

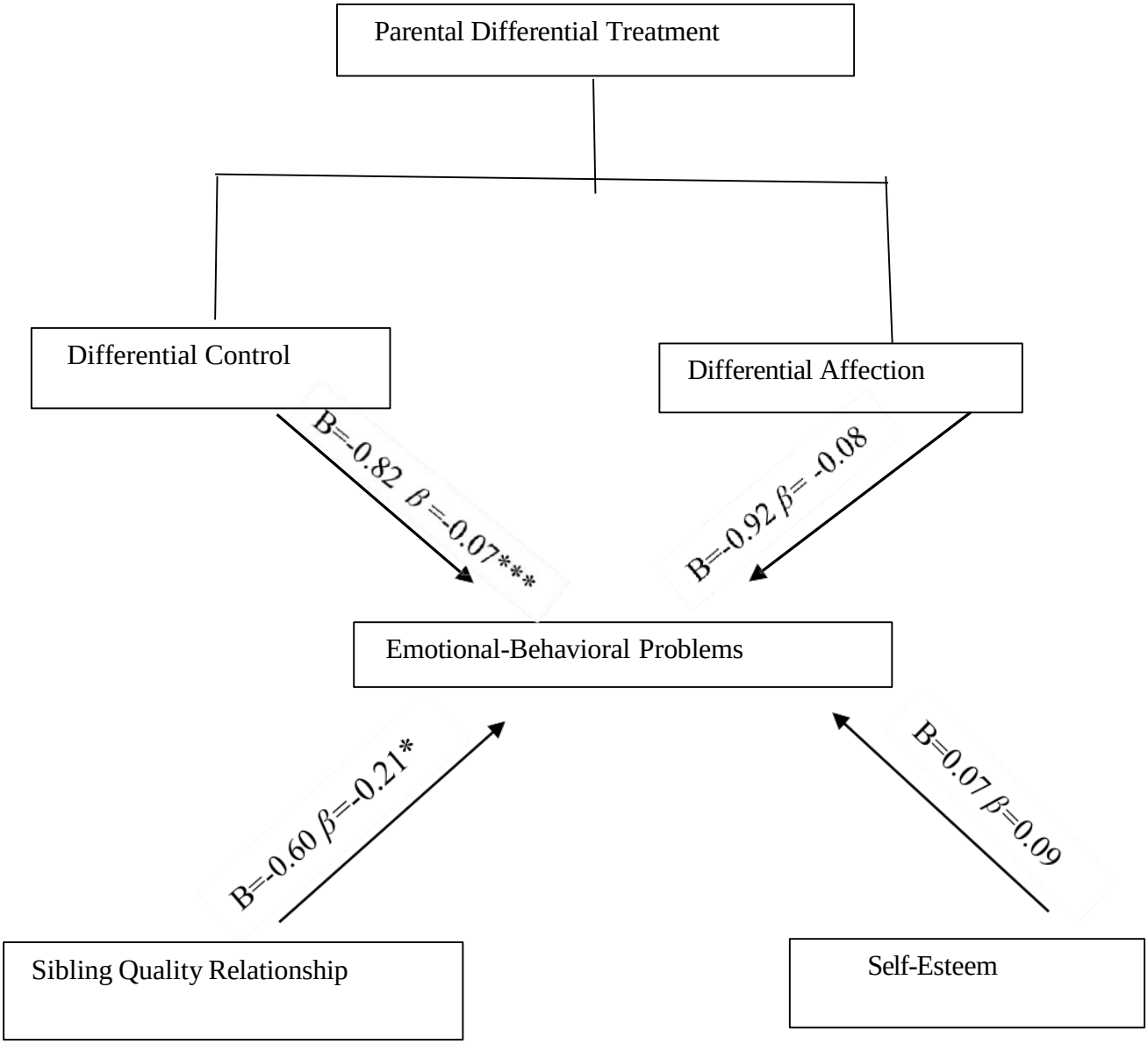
Table 6: *Multiple Linear Regression Analysis Predicting Emotional-Behavioral Problems (N=125)*

Variables	***B***	***β***	***SE***	**95%**	***CI***
				LL	***UL***
Differential Control	-0.82	-0.07***	.112	-1.6	.16
Differential Affection	-0.92	-0.08	.102	-1.03	.80
SRQ	-0.60	-0.21**	.027	-5.02	2.2
RSE	0.07	.09	.078	-1.05	1.6
$R^2 = .31$					
F = 3.39*					

Note. *R²*= R Square, *B*=Unstandardized Coefficient, *β*= Standardized coefficient, *CI*=Confidence Interval, *LL* =Lower Limit, *UL* =Upper Limit, *SRQ*= Sibling Relationship, *SDQ*= Strength and Difficulty Questionnaire

*$p < .05$, ***$p < .001$

Overall model was significant in multiple linear regression analysis with an R^2 of .31 ($p < .01$). The two variables that were significant negative predictors were Differential Control and Quality of Sibling Relationship which were related to higher parent control and sibling relationship quality, respectively and thus lower rates of emotional-behavioral problems. The Differential Affection and Self-Esteem, in contrast, did not significantly predict emotional-behavioral problems.



Discussion

The present study explored the relationships of Differential Control (DC), Differential Affection (DA), Quality of Sibling Relationship (QSR), Self-Esteem (SE) and Emotional-Behavioral Problems (EBP) among siblings of children with special needs. The results partly confirmed the study hypotheses, and emphasized the role of the family relational processes in the psychological adjustment of these siblings.

The results showed that there was a significant negative correlation between Differential Control and Emotional-Behavioral Problems. This differs from most of the previous literature that correlates higher levels of DEC with lower psychological outcomes (Rolan & Marceau, 2018; Jensen et al., 2023). In the Pakistani context however, parental control can mean guidance, supervision and protection and not an unfair restriction. Adolescents can view parental monitoring as a way that parents care about them and are involved in their lives, especially in families that have to deal with the extra demands of raising a child with special needs (as described in the principles of Family Systems Theory (Bowen, 1978).

Differential Affection was not significantly related to Quality of Sibling Relationship, Self-Esteem or Emotional-Behavioral Problems. The findings of this study contradict previous studies that have shown that there is a relationship between perceived differences in parental affection and lower self-esteem and adjustment (Brody et al., 2020; López & Rivera, 2022). An indirect way of expressing love is more common in Pakistani families than verbal and emotional

love expressions, which may be one of the reasons. Siblings are also likely to be less likely to feel that affection differences are actually an unfair treatment.

Quality of Sibling Relationship was significantly negatively related to Emotional-Behavioral Problems, such that better relationships with siblings were related to fewer emotional-behavioral problems. The findings agree with previous research conducted which indicates that positive sibling relationships are linked to psychological adjustment (Mokoena & Van der Merwe, 2021; Tanaka & Saito, 2023). This finding is also consistent with the Transactional Model of Stress and Coping (TMSC) (Lazarus & Folkman, 1984) which suggests that family support is a good coping resource to help neutralize the impact of the family stressor.

Interestingly, the self-esteem was negatively correlated with Quality of Sibling Relationship. The current result stands out from previous findings, which typically found a positive correlation between sibling warmth and self-esteem (Tucker & Updegraff, 2019; Rahimi et al., 2022), as this finding may be related to the special characteristics of the siblings of children with special needs. Closeness with siblings can also be an expression of greater caring responsibilities and self-sacrifice, which can stifle the opportunities for personal growth and result in lower levels of self-esteem.

In the same way, in relation to the literature, the results showed that Self-Esteem was positively related to Emotional-Behavioral Problems which contradicted the literature which considered self-esteem as a protective factor to emotional and behavioral problems (Smith & Greenberg, 2018; Wu & Lam, 2020). Confidence and independence might not be the same in collectivistic cultures where emphasis is placed on obedience, modesty and family harmony are important cultural values. Those teens who are more confident in their self-esteem, may express the emotions or question family expectations and this can be seen as more emotional or behavioral problems.

The results of the correlation show that family relationships, particularly in terms of the quality of the sibling relationship, are a significant factor in the psychological adjustment of children with special needs' siblings. The findings also underscore the need to take into account the cultural context in the interpretation of the impact of differential parental treatment, self-esteem, and sibling relationships.

The regression analysis showed that Differential Control and Quality of Sibling Relationship significantly predicted emotional-behavioral problems while Differential Affection and Self-Esteem were not significant. Differential Control negatively predicted emotional-behavioral problems such that a higher perceived parental control was linked to fewer emotional-behavioral problems. This may be due to the collectivist culture in Pakistan where parental control is perceived more as guidance and protection than as unfair treatment. Additionally, quality of sibling relationship proved to be the best predictor variable, emphasizing the buffering effect of positive sibling relationships for psychological adjustment of siblings of children with special needs.

Limitations and Recommendations

The current study has contributed to this, but has some caveats. First, because of the cross-sectional design, causal inferences about the relationships between Differential Control, Differential Affection, Quality of Sibling Relationship, Self-Esteem and Emotional-Behavioral Problems are limited. Longitudinal study designs are needed to investigate the nature of these relationships through time. Second, the children in the study were only siblings of those with special needs in one particular school in Lahore, which could potentially limit generalizability of the findings. Future studies should consider increasing and/or expanding its sample size in socio-economic and geographic areas. Third, the self-report measures might have led to social desirability and/or response bias. More future research is encouraged to have multiple informants (parents and teachers) for a more thorough evaluation. Finally, a study of the measures used in the study should be validated in the Pakistani culture to further enhance the psychometric and cultural relevance.

Conclusion

The present study examined the relationships that exist between Disability in Differential Control, Disability in Differential Affection, Quality of Sibling Relationship, Self-Esteem and Emotional-

Behavioral Problems of disabled children's siblings. Results suggest that family relational factors (relationships with siblings and differential control) are important in predicting emotional and behavioral adjustment. The findings also provide insight into the relationship between the cultural context and perceptions of parental behavior and family relationships. Overall the study contributes to the limited research on siblings of special children in Pakistan, and suggests interventions to support the psychological well-being of the family.

Conflict of Interest

The authors showed no conflict of interest.

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