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Sibling Relationship, Emotional Expressivity and Adjustment among Sibling of Autistic Individuals

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Abstract

The study aimed to observe the relationship of emotional expressivity and sibling relationship to predict adjustment in siblings of autistic children. Quantitative data was collected from the targeted population in form of self-report questionnaires. Emotional Expressivity Scale (EES) developed by Ann Kring (1994) was used to assess emotional expressivity, Sibling Relationship Questionnaire developed by Furman & Buhmester (1985) was used to access sibling relationship and Sibling inventory of Behavior developed by Schaefer & Edgerton (1979) was used to access adjustment, Sample Data was collected from both M and F in the age range of 14-20 from various hospitals and rehabilitation centers of Lahore. Correlational product-moment findings revealed that a significant positive correlation exists between emotional expressivity and some domains of adjustment (Empath, Involvement, and Kindness) and between sibling relationship (warmth) and some domains of adjustment (Empath, Acceptance and Involvement). Moreover, prediction analysis revealed the emotional expressivity predict subdomain 'empathy' of adjustment and sibling relationship also predicts two domains (empathy and kindness) in the study.

Keywords: Emotional expressivity • Sibling relationship • Adjustment •Siblings • Autism

Introduction

According to the family system framework that is developed by Murray Bowen in 1970 behavior of the person is shaped by his or her social groups, especially and more importantly by their families [1]. This approach looks at not just the person but sees him in the group and his or her interactions in that group. The basic idea is that the family as a unit organize themselves to cope with the new faced challenges as well as routines and also with the adjustment demands of the family members [2]. Moreover, it suggests that each member of the family is interrelated and the family as a whole is characterized by the relationship and interactions of its members. When a change comes the family as a whole experiences it and pass through a progressive change and it affects all the members of the family. As this change takes place every member of the family must readjust [1].

In the context of this theory, the autistic child and their family adjust parallel to this perspective. As a family as a unit expects a certain behavior from each of its members and specifically from the children at each developmental stage, but a child diagnosed with autism falls short on these expectations as he/she is unable to live up to those required expectations. This in turn causes disturbance and disruptions in the family unit and since the child diagnosed with autism is resistant to change and is inflexible due to the characteristics of the diagnosis the rest of the family members are forced to readjust accordingly [3]. This put more expectations on the siblings that have to take the additional responsibilities and role to meet the new demands as they have to provide additional support to their disabled sibling as well as has to compensate for his or her sibling's duties in the family unit that they are unable to perform. Literature 15 suggests it results in both positive and negative outcomes that would be studied in this present study with more specific attention given to the emotional expression and their sibling relationship and its relation to adjustment [4].

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The rationale of the study

Many studies have shown negative outcomes on siblings of children diagnosed with Autism and have shown it to affect their adjustment. Living with a child with a chronic disability possess many challenges to the health of their siblings as they experience negative feelings such as embarrassment and guilt and also feel a loss of parental attention and love due to the increased needs of their challenged siblings that require more parental attention. Moreover, they had to take additional responsibilities from a very early age of nurturance and caretaking for their challenged sibling which they usually are not even prepared for [5]. As a result, they experience emotional and social difficulties and difficulties in their relationship with their disabled sibling. Researches have shown being able to explain how they feel and express these feeling can yield to better emotional health and strengthen the relationship [6]. Therefore, the purpose of my study is to see if there would be any relationship with the emotional expressivity of these siblings on their adjustment. Moreover, if the relationship with their disabled sibling affects their level of adjustment. For an in-depth examination, this study will investigate the subdomains of sibling relationships and their relation with the types of adjustment which has not been studied yet in this unique population

A review of the literature indicates that mixed literature exists about the outcomes on siblings living with an autistic child. Some researchers suggest positive outcome whereas few suggests negative outcomes. Literature also suggests that these siblings are at a higher of emotional difficulties as their emotional health is at stake because of the additional role they have to take, differential parental treatment, and the disability experience of their disabled brother and sibling [7].

Another study by Unal & Baran report the same findings and suggest that siblings of children with developmental disorders and disabilities are relatively more caring towards their siblings and have synergy and more empathy towards their disabled sibling [8].

However, literature from few studies also shows that having a sibling diagnosed with autism has not always positive outcomes; many studies have shown and identified multiple risk factors of having a sibling who is diagnosed with autism. A study by Dodd showed that siblings of individuals who are diagnosed with autism expressed more negative views about their disabled sibling and the situation itself. It has also been reported that the typical siblings of children who are diagnosed with autism have reported poorer overall adjustment along with more reported problems with social and peer relationships. Another study by Long suggests that siblings of children

diagnosed with autism and other developmental disabilities and disorders are at a higher risk of difficulties with emotions and more reported emotional problems relative to siblings of a typical individual. Moreover, they have more factors to contribute to poorer adjustment. It includes problems in general emotional expression and problems as well as the reduction in sibling-parent communication. They then to reduce the expression of their emotions and discussion of the negative emotions they experience about their disabled brother and sister which affects their relationship with both the diagnosed child as well as the parents [9-14].

Objectives of the study

- To find out the relationship between sibling relationship and Adjustment among siblings of autistic individuals.
- To find out the relationship between emotional expressivity and adjustment among siblings of autistic individuals.
- To find out if sibling relationships and emotional expressivity predict adjustment among siblings of autistic individuals.
- Hypothesis
- H1 There is likely to be a relationship of Sibling Relationship and Emotional Expressivity with Adjustment among Sibling of Autistic Individual.
- H2 There would be a relationship between sibling relationship and Adjustment among siblings of autistic individuals.
- H3 Sibling relationship and emotional expressivity are likely to predict adjustment in a sibling of an Autistic individual.

Method and Materials

Research design

A correlational research design was used for the present study as it aimed to investigate the relationship between three variables of interest (Emotional Expressivity, Sibling Relationship, and Adjustment) in siblings of children diagnosed with ASD.

Sampling strategy

The sampling strategy that was used for the present study was the non-probability purposive sampling technique because the choice of the sample was purposeful. Only siblings of those children were recruited in the study that were diagnosed with ASD and didn't have any other mental or physical illness comorbidity. Data was collected from different government and private special education institutes and rehabilitation centers of Lahore.

Participants

A total sample of 144 siblings (72 males and 72 females) of children diagnosed with ASD falling in the age range of 14-20 years was taken for the present study.

Inclusion criteria

- Siblings of the autistic individual.
- 14-20 years of age range.
- Having sufficient reading and comprehension skills

Exclusion criteria

- Siblings of children diagnosed with any other mental disorder, physical illness, or disability other than ASD.
- Siblings of children having any mental or physical co-morbidity with ASD.
- Participants who do not share the same residents as their diagnosed sibling were excluded from the study.

Assessment tools

A demographic sheet with 3 standardized questionnaires (Emotional Expressivity Scale, Sibling Inventory of Behaviour, and Sibling Relationship Questionnaire) was used to collect data from the targeted participants (Table 1).

The result of descriptive analysis of demographic showed that the maximum number of participants 57% falls in the age range of 14-17 years. Moreover, 51% of the participant was females and the maximum (43%) studied in 12th grade. The majority of participants (57%) belonged to middle-class family status. Furthermore, most of the participant (59%) was living in the nuclear family system and maximum reported they spent at least 1-3 hours per day with their autistic sibling [15-18].

Results

Psychometric properties of the scale were evaluated by reliability analysis which is presented in his table. Descriptive statistic of the study variables sibling relationship short version scale, Emotional Expressivity Scale and Adapted Sibling Inventory of Behavior was computed by means, standard deviation, and a total number of items of the scale. There are three membranes surrounding the brain and spinal cord: the dura mater, the arachnoid, and the pia mater. The arachnoid and pia mater are collectively called the leptomeninges. Tumor involvement of the leptomeninges, which is distinguished from tumor involving the dura mater, allows malignant cells to spread throughout the subarachnoid space, travel to distant sites, and grows (Table 2) [19].

Table 1. Descriptive statistics for demographics and other characteristics of the participants (n=147).

Variables	μ%
Age	
14 – 17	(85) 57%
18 – 20	(62) 42%
No. of siblings	
1 – 2	(30) 20.40%
3 – 4	(87) 59%
5 – 6	(26) 17%
7 – above	(4) 2.7%
Hours spent with autistic sibling	
1 – 3	85
4 – 6	57
7 – 9	5
Gender	
Male	72 (49.0)
Female	75 (51.0)
Class	
8th	27 (18.4)
10th	32 (21.8)
12th	64 (43.5)
14th	24 (16.3)
Family status	
Upper class	61 (41.5%)
Middle class	85 (57.8%)
Lower class	1 (0.7%)
Family system	
Nuclear	88 (59.9%)
Joint	59 (40.1%)

Note: f=frequency, %=Percentage

Table 2. Psychometric properties of sibling relationship questionnaire, emotional expressivity scale and adapted sibling inventory of behaviour

Variables	K	M	S D	α
SRQ Scale	42	127.03	13.1	0.71
EES	17	63.04	60.163	0.7
ASIB	28	82.84	93.85	0.72

Note: k=Number of Items in the Subscales, M=Mean; SD: Standard Deviation, Score, α=Reliability Coefficient, SRQ: Sibling Relationship Questionnaire Scale, EES: Emotional Expressivity Scale, ASIB: Adapted Sibling Inventory of Behavior

Table 3. Correlation between study independent variable Emotional Expressivity and Subscale of Dependent Variables; Empathy, Avoiding, Involvement, Hurting, Kindness, Anger (N=147).

	Variables	1	2	3	4	5	6	7	8	9
1	Emotional Expressivity	-	.15*	-0.18	.31*	-0.25	.45*	-0.23	0.02	-0.17
	ASIB									
2	Empathy	-	-	- .39*	0.05	.38*	-0.04	-.29*	.24*	.44*
3	Avoiding	-	-	-	0.08	.45*	0.06	.36*	.24*	.50*
4	Involvement -	-	-	-	-	0.02	0.17	0.05	.21*	.63*
5	Hurting	-	-	-	-	-	0.09	0.55	0.21	0.63
6	Kindness	-	-	-	-	-	-	0	0.16	-0.01
7	Anger	-	-	-	-	-	-	-	0.23	0.55
8	Acceptance	-	-	-	-	-	-	-	-	0.36
9	Embarrassment	-	-	-	-	-	-	-	-	-

Note: **Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

The result of reliability analysis depicted that Cronbach alpha of our study scale Sibling Relationship Questionnaire, Emotional Expressivity Scale and Adapted Sibling Inventory of Behavior Scale were 7.1, 7.0, and 7.2 respectively which indicates these scales were reliable measure for this population to measure the variable of interest. The result of the Pearson Product Moments correlation shows a significantly weak correlation between Emotional Expressivity and Empathy(r=1.5, N=147, p=0.6). There is a positive weak correlation between Emotional Expressivity and Involvement (r=3.1, N=147, p=0.05) and a moderate positive correlation between Emotional Expressivity and Kindness at (r=4.5, N=147, p=0.05) [20-23].

The result of Pearson Product Moments correlation shows a significant positive correlation between warmth and empathy (r=2.3, N=147, p=0.05), warmth and involvement (r=1.5, N=147, p=0.02), warmth and kindness (r=2.1, N=147, p=0.05) and warmth and acceptance (r=1.0, N=147, p=0.05). Furthermore, the results show a significant strong positive correlation between power and involvement between power and involvement (r=7.1, N=147, p=0.03) and significant weak positive correlation between power and kindness (r=2.1, N=147, p=0.05), and there is a significant positive weak correlation between conflict and anger (r=3.0, N=147, p=0.5) (Table 3) [23-26].

Emotional expressivity step 1 explain 20.0% of the variance and was significant with empathy (F (1,145)=4.0, p=0.47, R2=02. Warmth in step 2 explain 83% of the variance and was significant with empathy (F (1,145)=14.2, p=0.05, R2=0.9

Warmth in step 5 explain 83% of the variance and was significant with kindness (F (1,145)=14.2, p=0.05, R2=0.9. Emotional expressivity in step 5 explain 83% of the variance and was significant with kindness (F (1,145)=14.2, p=0.05, R2=0.9.

Discussion

Previous literature has suggested that living with an autistic child brings many challenges for their siblings. In addition to the new roles and responsibilities, they face new emotional problems like the feeling of loss of parental attention and affection, embarrassment, and guilt Studies have indicated that siblings of children with Autism have more internalizing's and externalizing problems [27-30]. They tend to restrict themselves in terms of emotional expressivity and not share their feeling about their disabled child reducing the sibling-parental interaction (Table 4).

The first hypothesis of the current study was there will be a relation between emotional expressivity and adjustment in siblings of autistic individuals. A correlation analysis was carried out to find if any relationship existed between the two variables. Emotional expressivity and ability of how well an individual communicates his or her feeling and emotions of others [31]. It is how an individual outwardly expresses or displays his or her emotions and changes his mode of response in significant ways according to the situation whereas, adjustment is a psychological process of coping and adapting to the challenges, problems, and requirements of daily life (Table 5) [32]. The results showed that there was a significant correlation of emotional expressivity with various sub-domains of adjustment. As the full scale of adjustment can't be computed, the relation of emotional expressivity with the sub-domain of adjustment was investigated and the results showed that a significant weak positive correlation exists between emotional expressivity and empathy and emotional expressivity and involvement. Moreover, there is a moderate positive correlation between emotional expressivity and kindness.

Studies show that people who are good at expressing their emotions about a negative event tend to have a better social adjustment [33]. Moreover, studies indicate that emotional expressivity and emotional insight are strong predictors of empathy that corroborate with the present study findings [34]. Based on the results and supporting finding it can be said the emotional expressivity in the siblings of autistic children is related to the empathy, they feel towards them. The more they say and share their feelings about their siblings, the more they feel empathetic towards them. Furthermore, results also indicated a positive relationship of emotional expressivity with involvement [35]. Emotional expressivity can be explained in terms of openness of communication between the siblings, it is the expression of one's needs as well as of how they feel about their siblings with a condition. The results indicated the more emotionally expressive an individual will be about their feeling and emotions about their needs and related to their disabled sibling the more involved he or she will be with his disabled brother or sister [36]. A study by Boone & Buck investigated

Table 4. Correlation between study sibling relationship questionnaire and subscales warmth, rivalry, power, conflict and adapted sibling inventory of behavior subscales empathy, avoiding, involvement, hurting, kindness, anger (N=147).

		Variables	1	2	3	4	5	6	7	8	9	10	11	12
1	**SRQ**	Warmth	-	2.2*	5.1*	-0.5	2.3*	-0.29	1.5*	0.18	2.1*	-0.14	.10*	0.13
2		Rivalry		-	-0.37	0.26	-3*	0	-5*	-0.07	-0*	-0.02	-0.01	-0.07
3		Power			-	0.42	0.11	0.28	.71*	0.13	.21*	0.14	-0.09	0.05
4		Conflict				-	-0.11	0.14	0.07	0.13	0	3.0*	0	.05*
5	**ASIB**	Empathy					-	0.39	0.05	0.38	-0.04	0.29	0.24	0.44
6		Avoiding						-	0.08	0.45	0.06	0.36	0.24	0.5
7		Involvement							-	-0.02	0.17	0.05	0.21	0.07
8		Hurting								-	-0.09	0.55	0.21	0.63
9		Kindness									-	0	0.21	0.01
10		Anger									-	-	0.16	0.55
11		Acceptance											-	0.36
12		Embarrassment												-

Note: *Correlation is significant at the 0.05 level (2-tailed); ** Correlation is significant at the 0.01 level (2-tailed).

Table 5. Stepwise multiple regression analyses predicting of sibling inventory of behaviour subscale, empathy, avoiding, involvement, hurting, kindness, anger, acceptance, and embarrassment are dependent variables, (N=147).

Predictor	Sibling inventory ΔR2	Behavior B
Emotional expressivity	Empathy	
Step 1	2.0*	1.6*
IV SIB		
Warmth	Empathy	
Step 2	0.8**	2.9*
Rivalry	0.05	
Step 3		
Conflict	0.03	
Step 4		
Warmth	Kindness	
Step 5	2.0*	4.6**
Emotional expressivity		
Step 6	0.04	
Conflict	0.03	
Step 7		
Rivalry	Kindness	
Step 8	-3.9*	

Note: *p<0.1, **p<0.1, ***p<0.01, ΔR2, Adjusted R square, β=Beta, SRQ: Sibling Relationship Questionnaire Scale; EES: Emotional Expressivity scale; ASIB: Adapted Sibling Inventory of Behavior

the role of emotional expressivity and trustworthiness in siblings. The results showed as emotional expressivity increases the level of trustworthiness between the siblings also increases as they feel more open in sharing their feelings and experiences. Therefore, it can be said the emotional expressivity tends to develop a feeling of trust which makes the siblings more involved with each other. The results also showed a moderate positive correlation between emotional expressivity and kindness. As discussed earlier and also indicated by the regression results that would be discussed later, emotional expressivity tends to increase empathy in siblings of autistic children. When a person is empathetic he or she tends to have a more positive feeling for the other person that leads to kindness [37].

The second hypothesis of the study was that there will be a relationship of sibling relationship with the adjustment of a sibling of autistic children. To find out the relationship between the two, a correlational analysis was carried out. The results showed a significant positive correlation between warmth and empathy, warmth and involvement, warmth and kindness, and warmth and acceptance. If we study these concepts, one can infer that all these concepts are interrelated. A person with more warmth will be more empathetic and in turn kind and empathetic towards others and would have more acceptances for them because they tend to understand others as if they are in that particular situation. Studies show that emotional expressiveness leads to the warmth that further leads to empathy in individuals [38-40].

Moreover, results also showed a significant strong positive correlation between power and involvement and a significant positive weak correlation between conflict and anger. Studies show that manifestation of anger when the unexpressed result in both; internalizing and externalizing behaviors. When the person tends to externalize his emotions of anger it results in conflicts. A study by Crane & Teste shows that emotions of anger are generally associated with subsequently reported daily conflicts which seem to be consistent with the present study findings [41].

The third hypothesis of the present study was that sibling relationship and adjustment will predict emotional schemes in siblings of autistic children. An in-depth study of the analysis showed that emotional expressivity predicted empathy in the study population which suggests that with an increase of emotional expressivity empathy also increases which also corroborates with another study conducted by Roberts et al. that emotional expressiveness and emotional expressivity is a strong predictor of empathy. Moreover, results also indicate that warmth predicts empathy in these siblings. The more warmth they have, the more empathetic they will be towards their disabled brother or sister. This has been suggested in another study by Zhou that when the individual is more emotionally expressive, he or she has more warmth which in turn leads to empathy [12,42,43].

Furthermore, Warmth was also seen to predict kindness in siblings of autistic children. As discussed earlier these all concepts are interrelated as warmth leads to empathy and when a person tends to have both warmth and empathy then tend to better understand other's situation and are more kind towards them. Moreover, emotional expressivity was also seen to be a predictor of kindness in the study population. It can be inferred that all these positive experiences tend to help in better adjustment in the siblings of autistic children [44].

Conclusion

Autism is a developmental disorder with brings along many challenges not only for the individual but also for the family and its members. Sibling relationship being the longest bond in a person's life makes them at risk for many negative outcomes as they are expected to not only provide care and support to their disabled brother or sister but also take on the additional responsibilities to overcome their disabled brother or sister's deficits. Literature has suggested even though this disorder comes with many challenges and negative outcomes, there are positive experiences and outcomes too. When these siblings tend to express their emotions and feelings about their disabled brother or sister and about the challenges they are facing because of it, it is seen to contribute to better adjustment. Results of the present study also revealed that when there is a better emotional expressivity in these siblings they are more empathetic towards their disabled brother or sister and have more kindness towards them which adjusts better even in these unique challenges that come with this disorder. Moreover, the present study also revealed that sibling relationship also contributes in better adjustment. When they have more warmth they tend to be more involved in their disabled brother and sister's condition and provide them better support.

Implications

The finding from the present study provides the basis for intervention-based studies. Emotional expressivity has been seen to predict adjustment in this unique population, so intervention can be made to enhance the emotional expression of the siblings of autistic children to make it easy for them to express their emotions hence leading to better adjustment.

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