

Investigating The Social And Psychological Factors Affecting Behavior Disorders Of Down Syndrome: From The Point Of View Of The Parents

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Abstract

The study aimed to examine how social and psychological factors affect behavioral disorders in children with Down syndrome. A survey instrument based on questions was used to collect data from 60 parents of children with Down syndrome. The results showed that involving the Down Syndrome child in family sessions and conversations, excessive thanks to a the Down Syndrome child, interacting with the Down Syndrome child in social occasions, and communicating with the Down Syndrome child with others will decrease his/her behavioral disorders. Living with domestic violence by a Down Syndrome child will increase his/her behavioral disorders. The results show also that giving compassion to your Down Syndrome child, the emotional support to your Down Syndrome child, enhancing self-esteem of the Down Syndrome child, and giving Down Syndrome children simple homework to rely on themselves and give them confidence will reduce his/her behavioral disorders. However, emotional abuse of the Down Syndrome child, and physical and verbal bullying of the Down Syndrome child will increase his/her behavioral disorders. The study recommended that parents should involve their children who have Down syndrome in family gatherings and community activities, thank them for any small acts of kindness, and show them affectionate support, and finally, parents should ensure that their children who have Down syndrome receive appropriate education.

Keyword: Down Syndrome (DS), Behavior Disorders, Psychological Factor, Social Factor, Intellectual Disability (ID)

I. Introduction

Down syndrome (DS) affects one in every 1000 live newborns, according to World Health Organization (WHO) statistics (2015), which is a prevalent chromosomal condition with intellectual disability (ID) as its most prominent trait. According to Shin et al. (2009); about 1 in 800 newborns has Down syndrome, which is one of the most common conditions caused by autosomal chromosomal abnormalities.

Most people with Down syndrome have social functioning problems as well as simple to severe intellectual difficulties (Bertoli et al., 2011; Covelli et al., 2015). Psychiatric

issues can also have an impact on how well these people adjust (Fujino, 2017).

An extra copy of chromosome 21 or a portion of it is a genetic condition known as Down syndrome (DS). An increased prevalence of epileptic seizures, an average IQ that is significantly lower than that of the general people, language and cognitive deficiencies, and a three- to five-fold higher prevalence of Alzheimer's disease (AD) compared to non-DS people are all known effects of this extra copy (Snyder et al., 2020).

According to research, people with DS exhibit a wide range of behaviors and they have both strengths and weaknesses (Grieco et al., 2015). Children with DS have fewer

emotional and behavioral problems than those with specific syndromes or who have nonspecific intellectual disabilities (Grieco et al., 2015; Rice et al., 2015). Numerous studies have shown that children with DS have significantly more issues than their normally developed classmates (Dykens, 2007). Children with DS are particularly prone to impulsivity, hyperactivity, attentional issues, disobedience, and compulsive behavior (Siegel and Smith, 2011).

Due to variables like poor linguistic ability, atypical symptom presentation, limited verbal abilities, and a lack of appropriate tools to aid diagnosis, behavior problems in people with intellectual disabilities are typically underdiagnosed (Rush et al., 2004). Despite these barriers, research has shown that between 18 and 30% of children with Down syndrome exhibit externalizing behavioral problems, which is higher than that of their age-matched, typically developing peers (Capone et al., 2006).

1.1 Problem and Questions of The Research

Research Problem

Based on previous studies, the researcher noticed that children with Down syndrome are affected by social and psychological factors that lead to disturbances in their behavior. These behavior problems differ in nature from other problems that appear in other people, which affects their relationship with others on the one hand, and hinders their benefit from the programs and plans offered to them on the other hand.

Despite the social and psychological significance affecting the behavioral disorders of children with Down syndrome, studies for these problems are limited. The study aims to investigate the social and psychological factors that affect behavior disorders in Down syndrome children.

Questions of the Research

The problem of the current study can be summarized in the following questions:

1. What are the social factors affecting children with Down syndrome from the point of view of the parents?
2. What are the psychological factors affecting children with Down syndrome from the point of view of the parents?

2. Literature Review

2.1 Psychological Effect

Therapeutic riding for individuals with disabilities appears to have a positive effect on mental health, according to a substantial body of anecdotal data and some studies. Similar research demonstrates the beneficial effects of equestrian programs that includes a psychotherapy component, they assert that equine activities are beneficial for those with disabilities and may improve various aspects of mental health more than other activities. However, rather than psychopathology specifically, the beneficial effect may be related to general wellness (Schneider and Harley, 2016).

A significant fraction of young adults with Down syndrome struggle with psychological and psychiatric problems. Some people experience psychiatric problems in their late adolescence or early adulthood, such as depressive, obsessive-compulsive, or psychotic-like disorders. These people may also experience mild to severe emotional and psychological anguish. The study found that Dohsa-hou is one of the few psychosocial techniques that have been suggested to help young people with Down syndrome with their internalizing and mental problems. Dohsa-hou may be a useful treatment strategy for internalizing issues in adults with Down syndrome, according to this case study. Strengthening self-efficacy and

improving communication with the therapist may have an impact on progress in internalizing symptoms. Dohsa-hou reduces emotional and psychological distress in adults with Down syndrome, yet the extent of emotional and psychological issues at the start of treatment may have an impact on their recovery (Fujino, 2017).

2.2 Social Effect

After studying the psychosocial strengths, internalizing problems, externalizing problems, and cognitive and social problems the study shows that the most common issues were those related to attention, social interaction, and thought, while it was found that family's participation, receiving and giving compassion have positive impacts. Problems and strengths were found as separate but linked factors via confirmatory factor analysis (Dieleman et al., 2018).

According to Nurdin et al., (2021), people with physical disabilities' appreciation of resilience and social support are compared. The researchers suggested that social support and gratitude would have an impact on resilience. The results show that social support and gratitude are effective ways to promote resilience. The largest contribution came specifically from an excess of gratitude and emotional support. The findings of this study suggest developing an intervention to enhance the level of resilience of persons with physical disabilities. The results demonstrate that emotional support, information support, actual support, emotional support, and support based on positive social interaction in general are all valid.

According to (Hoover, 2015); child abuse and other potentially traumatic experiences among young people are important national health issues that are routinely mentioned as priorities for study and intervention. Child abuse, such as physical abuse, emotional abuse, and physical neglect, are examples of

traumatic events. Other traumatic experiences include losing a loved one, being separated from them, witnessing domestic or other acts of social violence, being subjected to physical and verbal bullying by peers, being exposed to natural and man-made disasters, and undergoing painful medical procedures, among others.

2.3 Behavior Disorder

According to Grieco et al., (2015) People with Down syndrome (DS) may have distinctive neurocognitive and neurobehavioral profiles that appear throughout particular developmental phases. These phenotypic profiles indicate a particular phenotypic profile that is distinct from that of other people with similar intellectual disabilities (ID). They also reflect basic neuroanatomical results. The information on the cognitive and behavioral characteristics associated with DS throughout the lifetime is updated by this review. Mild variations from neurotypically developing paths begin to appear in early childhood. Delays become more noticeable as children approach school age. While linguistic deficiencies start to appear and persist, nonverbal skills continue to develop along with mental age. Memory and nonverbal learning are superior to verbal skills. Comparatively speaking, expressive language follows cognition. Although language skills are still limited as adults, many aspects of language skills continue to improve throughout adolescence. Attention and executive function deficiencies begin in childhood and get worse as people get older. Personality strengths associated with DS include being optimistic and gregarious in nature. Compared to other children with an ID, children had a lower chance of developing psychopathology, and families reported less stress and a more optimistic perspective. While externalizing tendencies may be harmful in adolescence, internalizing behaviors begin to takeover, as people get

older. Adult-onset changes in emotional/behavioral functioning are frequently associated with neurodegeneration, and people with DS are at increased risk of developing dementia of the Alzheimer's type. People with DS have many distinct talents and shortcomings that should be respected as they mature over the course of their lives. Professionals and caregivers who are familiar with this profile can encourage early discovery and support cognitive and behavioral development.

Rice et al., (2015) conducted a study to look into the progression of verbal, physical, and temper tantrum aggression in four genetic syndrome groups. Participants took part in the Australian study of Child to Adult Development (ACAD), which collected data from a group of people with intellectual disabilities over the course of 18 years at five different stages. Data were reviewed for 248 individuals with one of the following four syndromes—Down syndrome, Fragile X syndrome, Prader-Willi syndrome, or Williams syndrome. Utilizing validated items from the Developmental Behavior Checklist, behavioral changes were measured (DBC). The findings revealed that physical aggression and temper tantrums decrease with age before 19 years for people with Down syndrome, Fragile X syndrome, and William syndrome, and after 19 years for those with Prader-Willi syndrome, while verbal aggression does not seem to change with age. These results provide a slightly more positive future for those with intellectual disabilities than previously thought.

According to Hemmings et al. (2006), the problem behaviors that were most frequently linked to emotional symptoms were self-harm and, to a lesser extent, violent. Instead of typical mental symptoms, screaming and destructive behaviors tended to be linked

more often to social impairment due to autism. This study provides further support for the links between particular problem behaviors and psychological symptoms in ID patients. If a person with ID exhibits aggressive or self-destructive behaviors, it may be especially beneficial to examine the diagnosis of affective disorders.

Amstad and Müller (2020) revealed that actions that jeopardize the student or others, such as biting, kicking, or talking about suicide, were rated as the most stressful. The most stressful behaviors were those that were disruptive or antisocial, while the least stressful were those that disturbed dialogue. Teachers of students with special needs are considered regarding the implications of preventing work-related stress associated with various forms of student problem behaviors.

3. Methodology

A survey instrument based on questions was used to collect data from 60 parents of children with Down syndrome. The survey was distributed using WhatsApp groups and a Google form that was emailed to the student's email addresses. The questions were divided into Parts 1 and 2, and the responders had to respond. The purpose of the first part of the questions was to collect demographic data from the respondents. Part 2 is divided into two sections, the first section is to clarify social factors affecting behavior disorders of Down syndrome. The second section is to clarify psychological factors affecting behavior disorders of Down syndrome. Then the SPSS software package was used to generate the descriptive features for each question.

4. Results and Discussion

4.1 Descriptive Statistics (Demographics Variables)

Table 1: Parents Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	19	31.7	31.7	31.7
Female	41	68.3	68.3	100.0
Total	60	100.0	100.0	

The sample was divided into two groups based on gender in Table (1), the number of males and females constituted 68.3% of the

sample size, while male constituted 31.7% of the sample size.

Table 2: Child Age

	Frequency	Percent	Valid Percent	Cumulative Percent
5-8	24	40.0	40.0	40.0
9-12	36	60.0	60.0	100.0
Total	60	100.0	100.0	

The ages of children with Down syndrome among the studied sample ranged between 5-12 years. The children between 5 and 8 made

up 40% of the total sample size, while children between 9 and 12 made up 60% of the total sample size.

Table 3: Child Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	33	55.0	55.0	55.0
Female	27	45.0	45.0	100.0
Total	60	100.0	100.0	

According to the parents' responses, the results showed that the percentage of male

children with Down syndrome was 55%, while the percentage of female was 45%.

Table 4: Down Syndrome child Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Special education	44	73.3	73.3	73.3
Regular education	10	16.7	16.7	90.0
Other/Unknown	6	10.0	10.0	100.0
Total	60	100.0	100.0	

According to the parents' responses, the results showed that the majority of children with Down syndrome have a special

education is 73.3%, while the percentage of children with Down syndrome who have a regular education was 16.7%.

Table 5: Number of children in family

	Frequency	Percent	Valid Percent	Cumulative Percent
1	7	11.7	11.7	11.7
2	16	26.7	26.7	38.3
3	20	33.3	33.3	71.7
4	6	10.0	10.0	81.7
5	4	6.7	6.7	88.3
More than 5	7	11.7	11.7	100.0
Total	60	100.0	100.0	

Table (5) divided the sample into 6 groups. The family, which have a one child accounting for 11.7% of the total sample. The second group is the family with two children accounting for 26.7% of the total sample. The third group is the family with three children accounting for 33.3% of the total sample and this group is the largest proportion out of the total sample size. The fourth group is family who have four children which accounting for 10%. The fifth group is the smallest group with 6.7% of overall sample size, which is family with five children. Finally, the last group is the family with more than five children, this

group which accounting for 11.7% of total sample.

4.2 Descriptive Summery

Responses were analyzed and ranked using a five-point Likert scale, using descriptive statistics (means and standard deviation) generated using SPSS. The range of mean values considered to be very low ranged between (1 and 1.80), low between (1.81 and 2.60), medium between (2.61-3.40), high between (3.41-4.20), and very high between (4.21-5.00).

Section 1: Social Factors Affecting Behavior Disorders of Down Syndrome

Table (6): Descriptive summery for the social factors affecting behavior disorders of Down Syndrome

N o.	Statements	Strongly Disagree	Disagree	Natural	Agree	Strongly Agree	Mean	Std.deviation	Practices degree
1	Involving the Down Syndrome child in family sessions and conversatio	2 (3.3%)	9 (15%)	1 (1.7%)	26 (43.3%)	22 (36.7%)	3.95	1.141	High

	ns will decrease his/her behavioral disorders								
2	Seeing domestic violence by a Down Syndrome child will increase his/her behavioral disorders	1 (1.7%)	1 (1.7%)	5 (8.3%)	33 (55%)	20 (33.3%)	4.17	0.785	High
3	Over thankful for Down Syndrome child will decrease his/her behavioral disorders	1 (1.7%)	7 (11.7%)	3 (5%)	21 (35%)	28 (46.7%)	4.13	1.065	High
4	Interacting the Down Syndrome child with the social occasion will decrease his/her behavioral disorders	1 (1.7%)	10 (16.7%)	5 (8.5%)	26 (43.3%)	18 (30%)	3.83	1.092	High
5	The communication of the Down Syndrome child with others will decrease his/her behavioral disorders	1 (1.7%)	8 (13.3%)	5 (8.3%)	33 (55%)	13 (21.7%)	3.82	0.983	High
Total							3.98	0.414	High

Table 6 describes the arithmetic means that measure the social factors affecting behavior disorders of Down Syndrome. Question (2) has the highest agreed sentences (4.17, Std. = 0.785) and is followed by question (3) secondly with a mean (4.13, Std.= 1.065), thirdly, question (1) with a mean (3.95, Std.= 1.141), fourth, question (4) with a mean (3.83, Std.= 1.092), finally, question (5) with a mean (3.82, Std.= 0.983).

The majority of parents (80%, 48 responses) agreed that including the Down syndrome child in family sessions and conversations would decrease his or her behavioral disturbances, according to the results of the first statement. The majority of parents (88.3%; 53 responses) agreed with the second statement that a child with Down syndrome witnessing domestic violence will exacerbate their child's behavior problems. In addition, item two had the greatest mean (M=4.17) and the lowest standard deviation (SD=0.785), which indicate that the majority of respondents shared the same ideas on the issue, according to the descriptive data. The majority of parents (81.7%, 49 replies) said that the Down syndrome child who gain overly grateful will lessen his or her behavioral disorders in response to a question (3). Another favorable perspective on that interacting with the Down Syndrome child on a social occasion will

decrease his/her behavioral disorders, (73.3%, 44 responses) of parents agree with the item (4). More than half of the parents (76.7%, 46 replies) agree that the communication of the Down Syndrome child with others will reduce his/her behavioral disorders. However, 15% of parents disputed this statement.

The study agrees with Dieleman et al., (2018) study which found that the involvement of the Down Syndrome child with their family was be a positive trait. Moreover, the current study is consist with Hoover, (2015) study which found that when a Down Syndrome child views domestic violence as an example of a traumatic event that affects his behavior disorders. In addition, Nurdin et al., (2021) suggested that thankfulness and social support would influence their resilience and behavior, the overwhelming thanks and emotional support made the biggest contribution. Overall, the results show that all types of support—including emotional support, informational support, physical support, affective support, and support based on constructive social interaction—are legitimate; all of these findings are in line with the current study.

Section 2: Psychological Factors Affecting Behavior Disorders of Down Syndrome

Table (7): Descriptive summery for the psychological factors affecting behavior disorders of Down Syndrome

N o.	Statements	Strongly Disagree	Disagree	Natural	Agree	Strongly Agree	Mean	Std.deviation	Practices degree
1	Giving compassion to your	2 (3.3%)	7 (11.7%)	2 (3.3%)	23 (38.3%)	26 (43.3%)	4.22	1.118	Very high

	Down Syndrome child will decrease his/her behavioral disorders								
2	The emotional abuse of the Down Syndrome child will increase his/her behavioral disorders	0	1 (1.7%)	7 (11.7%)	30 (50%)	22 (36.7%)	4.42	0.715	Very high
3	The bullying physically and verbally of Down Syndrome child will increase his/her behavioral disorders		2 (3.3%)	4 (6.7%)	21 (35%)	33 (55%)	4.28	0.766	Very high
4	Affectionate support for your Down Syndrome child will decrease his/her behavioral disorders	1 (1.7%)	1 (1.7%)	3 (5%)	30 (50%)	25 (41.7%)	3.78	0.783	High

	1 disorders								
5	Boosting the Down Syndrome child's self-esteem will decrease his/her behavioral disorders	3 (5%)	6 (10%)	7 (11.7%)	29 (48.3%)	15 (25%)	3.57	1.091	High
6	Giving Down Syndrome children simple homework to rely on themselves and give them confidence will decrease his/her behavioral disorders	6 (10%)	10 (16.7%)	2 (3.3%)	28 (46.7%)	14 (23.3%)	3.57	1.294	High
Total							4.06	0.443	

Table (7) shows a descriptive summary of the psychological factors affecting behavior disorders of Down Syndrome. Statement (2) represents the highest agreed upon mean statement (4.42, Std. = 0.715). It was followed by question (3) with a mean (4.28, Std.= 0.766). Third, question (1) with a mean (4.22, Std.= 1.118). Fourth, question (4) with a mean (3.78, Std.= 0.783), and finally, question (5 and 6) with a mean (3.57) and different standard deviation, (1.091) for item 5, and (1.294) for item 6.

The majority of parents (81.6%, 49 responses) agreed that giving compassion to their Down Syndrome child will decrease his/her behavioral disorders, according to the findings of the first statement. The second item, according to the majority of parents (86.7%; 52 responses), that emotional maltreatment of a child with Down syndrome will worsen that child's behavioral issues, was supported by 52 responses. The second item, according to the majority of parents (86.7%; 52 responses) emotional abuse of a

child with Down syndrome will worsen that child's behavioral issues, was supported by 52 responses. The majority of parents (90%, 54 responses) said that the bullying physical and verbal of Down Syndrome children will increase his/her behavioral disorders, according to question (3). Another positive perspective on that emotional support for your Down Syndrome child will reduce his/her behavioral disorders, (91.7%, 55 responses) of parents agree with the item (4). More than half of parents agree that enhancing the self-esteem of the Down syndrome child will reduce his or her behavior problems, with (44 responses, 73.3%). Finally, (70%, 42 responses) agree that giving easy homework to children with Down syndrome will help them feel more independent and confident, which would reduce their behavioral disorders. While 26% responses disagree with this item.

The current study is in line with Dieleman et al., (2018) study which found that giving compassion for a Down Syndrome child was found to be a positive trait. Moreover, this study is consistent with Hoover, (2015) study which found that the emotional abuse for children with Down Syndrome and physical and verbal bullying on them are examples of traumatic events that affects their behavior disorders. In addition, Nurdin et al., (2021) suggested that emotional support has a positive effect on the resilience and behavior of people with disabilities, which is in line with the findings of this study. The results show that when you enhance the self-esteem of your child with Down syndrome, this will reduce his behavioral disorder, and this is in line with Cunningham and Glenn, (2004) study.

Conclusion and Recommendation

The aim of the study is to look at how Down syndrome children's behavior disorders are affected by social and psychological factors. In order to collect

information from 60 parents of children with Down syndrome, a questions-based questionnaire instrument was employed. WhatsApp groups and a Google form sent to the students' email addresses were used to distribute the questionnaire. The respondents have to respond to Parts 1 and 2 of the questions. Then the descriptive characteristics for each question were created using the SPSS software program.

The majority of parents agreed that involving the child with Down syndrome in family discussions and sessions would reduce behavior problems. The second claim—that exposure to domestic violence will increase a Down syndrome child's behavioral issues—was supported by the vast majority of parents. The behavioral problems of Down syndrome child will get worse the more they see domestic abuse, which has the greatest impact. Most parents agreed that a child with Down syndrome who is very grateful would have fewer behavior problems. Another positive viewpoint is that social interaction with a child who has Down syndrome will reduce the child's behavior disorders. More than half of parents agree that behavioral disorders in a Down syndrome child will be reduced through social interaction with others.

Most parents agree that showing empathy for their Down syndrome child will reduce his or her behavioral disorders. Most parents believe that emotional abuse of a child with Down syndrome will exacerbate behavioral disorders in their child. The majority of parents claimed that verbal and physical bullying of children with Down syndrome would worsen their child's behavioral disorders. Another positive view is that your child with Down syndrome will experience fewer behavioral disorders as a result of your emotional care. More than half of parents agree that enhancing the self-esteem of the child with

Down syndrome will reduce behavioral disorders. Finally, parents agree that assigning simple tasks to children with Down syndrome will increase their sense of independence and self-esteem, which will reduce their behavioral disorders.

Based on the conclusions reached by the study, the study came out with the following recommendations:

1. Parents should involve their children with Down syndrome in family sessions and public events.
2. Parents should thank their children with Down syndrome if they do any small things.
3. Parents should provide emotional support to their children with Down syndrome and enhance their self-esteem.
4. Parents should subject their children with Down syndrome to appropriate education for them.

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