Anxiety and Depression Symptoms among Children with Intellectual Disabilities from Their Own and Their Family Caregivers' Viewpoints

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Abstract

Background: Anxiety and depression are prevalent mental health concerns among children and adolescents with intellectual disabilities. **Aim**: To assess anxiety and depression symptoms among children with intellectual disabilities from their own and their family caregivers' viewpoints. **Subjects & Method:** A cross-sectional analytical study was conducted on 87 children and their direct family caregivers recruited from three associations in Beni-Suef city. **Data Collection**: Data collection used a family caregiver interview form and a child interview form, both including socio-demographic information and the Revised Children's Anxiety and Depression Scale (RCADS) caregiver and child versions. **Results**: The study results paradoxically demonstrated that higher child exposure to bullying was a negative predictor of anxiety and depression, i.e. decreased these feelings. The study demonstrated low overall rates of anxiety and depression among participants. A strong positive correlation was found between parents' and children's views. Interestingly, greater exposure to bullying emerged as a negative predictor of anxiety and depression symptoms **Conclusion:** There is close agreement between children's self-reports and parents' views regarding anxiety and depression symptoms. **Recommendations**: Further research is recommended to evaluate the impact of intervention programs on the prevalence of anxiety and depression among intellectually disabled children and their families.

Key Words: Depression, Intellectual Disability, Caregivers, Children.

INTRODUCTION:

The term "mentally retarded children," once commonly used to describe those with intellectual disabilities, has become obsolete and is now recognized as inappropriate and stigmatizing. The preferred term is "intellectual disability" (ID), which refers to significant limitations in intellectual functioning-such as reasoning, problem-solving, and abstract thinking-as well as difficulties with adaptive behavior, including practical, everyday skills like communication, self-care, social interaction, and independent living **(Elmasry, Aladawy & Abd-elhamid, 2020; Mafuba, 2021; Marais, Wegner & Mthembu, 2022)**. The severity of ID can range from mild to profound **(Reddihough et al., 2021),** meaning that while some children may need only minimal support, others experience significant impairments that affect their ability to function independently or participate in normal daily activities **(Lee, Cascella & Marwaha, 2024)**. Diagnosis typically occurs in childhood or adolescence via standardized assessments of intellectual performance and adaptive behavior, including IQ tests, specialized behavior inventories, and clinical observation. A diagnosis of intellectual disability is commonly given when intellectual functioning corresponds to an IQ of about 70 or lower, accompanied by evident deficits in adaptive skills **(Nicholson, Conlon, Mimmo, Doherty and Guerin., 2022; Taylor et al., 2023).**

Anxiety and depression are among the most prevalent and concerning mental health issues affecting children and adolescents with intellectual disabilities **(Jandrić & Kurtović, 2021).** Multiple biological, psychological, and environmental factors contribute to this heightened vulnerability. For example, children

with ID often face more social challenges, peer rejection, and environmental stressors, all of which can exacerbate mental health problems **(Rakap & Vural-Batik, 2024).** Communication difficulties and limited emotional literacy may make it hard for these children to express their feelings, sometimes resulting in anxiety and depression being misinterpreted as behavioral problems rather than recognizable mental health disorders **(Alsaedi, Carrington & Watters, 2020).** Studies indicate that the prevalence of anxiety among children with intellectual disabilities ranges from 18% to 37%, and depression from 10% to 24%, which are significantly higher than in the general pediatric population **(Emerson & Hatton, 2007; Totsika, Hasting, Emerson, Lancaster& Berridge, 2011).**

The impact of anxiety and depression extends far beyond emotional distress, affecting nearly every aspect of a child's life. These mood disorders can interfere with academic achievement, limit participation in social or recreational activities, impair adaptive functioning, complicate relationships, and increase reliance on caregivers **(Blessin, Lehmann, Kunzler, van Dick, and Lie., 2022; Stewart et al., 2022).** Children with ID who also experience anxiety or depression may struggle to regulate emotions, cope with everyday stressors, or enjoy previously pleasurable activities **(Rakap & Vural-Batik, 2024).** Mental health difficulties in these children are also associated with substantial burdens for their families, who often experience increased psychological distress, financial strain, and challenges accessing adequate care **(Celdrán-Navarro et al., 2023).**

Effective management of anxiety and depression among children with

intellectual disabilities typically requires a multidisciplinary approach. Treatment may include cognitive-behavioral therapy (CBT), psychoeducation, social skills training, relaxation techniques, and pharmacotherapy, all individually tailored to the child's abilities and needs **(Thomas, Atherton, Dale, Smith, and Crawford, 2023).** Preventive strategies are essential, such as fostering an inclusive environment, promoting positive peer relationships, teaching coping and emotion-regulation skills, and reducing barriers to timely mental health care **(Stewart et al., 2022).** Providing ongoing education and support to families and professionals also helps with early identification and intervention. Crucially, collaboration between healthcare professionals, educators, therapists, families, and community organizations is vital for holistic care **(Lee, Cascella & Marwaha, 2024; Celdrán-Navarro et al., 2023).**

Community health nurses play a pivotal role in supporting the mental health of children with ID by promoting prevention, conducting early screening and assessment, providing counseling, and empowering families through advocacy and caregiver education **(Lan et al., 2022; Alshawush, Hallett & Bradbury-Jones, 2022; Lyu, Zhang & Wan, 2024; Yosep, Hikmat & Mardhiyah, 2023; Stanhope & Lancaster, 2021).** Their efforts are integral to creating safe, supportive, and healthy environments in which these children can thrive.

SIGNIFICANCE OF THE STUDY

Intellectual disabilities among children is an important public health problem. It affects approximately 1–3% of children globally **(Maulik et al., 2022).** Studies report that the prevalence of anxiety disorders among

children with ID ranges from 18% to 37%, and depression from 10% to 24%, both significantly higher compared to typically developing children **(Emerson & Hatton, 2007; Totsika, Hasting, Emerson, Lancaster& Berridge, 2011).**

A proper understanding of the problem and its roots and potential untoward consequences can help in the mitigation of the consequences, and in creating a healthy environment that can nurture their wellbeing. This study is an attempt to explore anxiety and depression symptoms from parents' and disabled children's viewpoints.

AIM OF THE STUDY

The aim of this study was to assess anxiety and depression symptoms among children with intellectual disabilities from their own and their family caregivers' viewpoints.

SUBJECTS AND METHOD

Research design: Analytic comparative cross-sectional study

Settings: The study was carried out in three associations for intellectually disabled children, namely Alwan, Kayan, and Awladna Associations in Beni-Suef city.

Sample: A direct family caregiver was recruited for each child. Their total number was 87, which is a sample size large enough to detect any rate of anxiety or depression of 50% or higher with a 7.0% precision, after accounting for a non-response rate of about 10%, using the G*Power software program for sample size estimation.

Data collection tools: Data collection was done using a family caregiver interview form, and a child interview form.

The family caregiver form was prepared by the researcher based on pertinent literature. It included one part

for the socio-demographic characteristics of the caregiver such as relation to the child, age, educational level, job, current marital status, residence, family type and income, and crowding index, in addition to a question about exposure to bullying. It had a second part for the child demographic characteristics and medical history.

The main part was the Revised Children's Anxiety and Depression Scale (RCADS), caregiver version, intended to measure anxiety and depression symptoms among children with disabilities from their parents' view. It was adopted from Chorpita, Yim, Moffitt, Umemoto, and Francis, 2000). It has high levels of validity and reliability **(Chorpita, Moffitt, and Gray, 2005).** The scale consists of 25 items with response categories "never," "sometimes," "often," and "always." These are categorized into two scales: Depression and Anxiety. The total score of the RCADS is calculated by assigning 0-3 to the response categories from "never" to "always," respectively (scored 0-75). The sum of all 25 items is calculated and indicates the severity of general anxiety and depressive symptoms. For each scale and subscale, the numerical values for each item are added together. T-scores and high/low levels were done according to tool guidelines, T-scores ≥65 classified as "high" clinical severity, 60–64 as "at risk," and <60 as within the normative range **(Chorpita, Ebesutani and Spence , 2015)**.

The child interview form consisted of the Revised Children's Anxiety and Depression Scale (RCADS), child version. This standardized tool is the same as the one used by the caregivers, with the same scoring system, but it directly addresses the child.

Pilot study: A pilot study was carried out on a sample of children and parents

representing 10% of the main study sample to assess the clarity and applicability of the data collection forms, as well as the feasibility of the study. Since the tools did not need any modifications, the pilot sample was included in the main study sample.

Validity and reliability of the data collection tools: The scales used have documented validity and reliability **(Chorpita, Moffitt, and Gray 2005).** The developed interview forms were submitted to three experts in community health nursing to assess their relevance and their face and content validity. Furthermore, Cronbach's Alpha was used to determine the reliability of the scales used by assessing their internal consistency. They demonstrated high levels of reliability with Cronbach's Alpha coefficients of 0.916 and 0.892 for the parents and children's forms, respectively.

Fieldwork: Upon getting the approvals to carry out the study, the researcher started visiting each of the three settings to acquaint the association officials with the data collection process and set the timetable for data collection. The researcher met with each eligible caregiver to explain the study's aim and its process. After informing them about their ethical rights, she invited them to participate. An interview was scheduled with those who provided their informed consent to participate.

The interviews were then conducted individually with full privacy guaranteed. The researcher started to interview the caregiver alone using the parent interview questionnaire. Then, the child was interviewed alone, whenever possible, using the child interview questionnaire. In the case of the presence of the caregiver during the child interview, she/he was asked to

abstain from interfering in response. The fieldwork lasted for a period of six months, 1-3 family caregivers and children were interviewed per day. The great majority of children's parents who were interviewed were their mothers (82.8%), while 5.7% of the interviews were with both parents, and 1.5% of them were fathers.

Administrative design and ethical considerations: Approvals were secured through official channels. The study was approved by the Research Ethics Committee (EREC) at the Faculty of Medicine, Beni-Suef. To obtain participants' informed consent, the researcher clarified the aim and objectives of the study to the family caregivers as well as their rights to refuse or withdraw at any time with no reason to be given. They were informed of the full confidentiality and anonymity of any obtained information.

Statistical analysis: This was done using the SPSS 20.0 statistical software package. Data were presented as frequencies and percentages for categorical variables and means and standard deviations and medians for quantitative ones. Cronbach alpha coefficient was calculated to assess the reliability. Spearman rank correlation analysis and linear regression model were used to determine the relations between quantitative variables and the ranked ones. To identify the independent predictors of the scores of anxiety and depression, multiple linear regression analysis was done. Statistical significance was considered at p-value <0.05.

RESULTS:

The study involved 87 children with a median of age 7.0 years, and slightly more males (59.8%) as shown in **Table 1.** Approximately one-half of them were firstborn (46.0%), and only 9.2% had no siblings. The highest

percentage (54.0%) were at the primary level of education.

Table 2 indicates that more than one-half of the children's mothers were 35 years of age or older (56.3%), had a secondary level of education (52.9%), and the majority were housewives (80.5%). Similarly, slightly more than one-half of their fathers were in the age category of 40 years or older (53.5%), with a secondary level of education (53.5%), and were manual workers (50.6%). As regards family characteristics, the majority of the parents were currently married (90.8%). More than half of the families were nuclear (63.5%), had sufficient income (54.0%), and were residing in urban areas (60.9%), in households with less than two persons per room (74.7%).

Table 3 indicates that almost all parents knew their children's diagnosis (95.4%), which was mostly cerebral palsy or brain injury (66.3%). The illness duration ranged between one and 18 years, with a median of 5.0 years. The child disorder was mostly discovered by the family (36.8%) or the doctor (29.9%). The majority of the children were on treatment (82.8%) and had their IQ measured (94.3%). It was mostly at a moderate level of mental deficiency (46.3%). As for school, more than two-thirds of the children had school problems due to their disorder (71.3%), and 23.0% left school for this reason. Meanwhile, only 26.4% got medical services at school. The illness affected most children's relationships as well as school achievement. Slightly less than a half of the parents (47.1%) reported that their children were exposed to bullying.

Table 4 shows that there are no statistically significant differences between parents' and children's views of feelings of depression or anxiety. The feelings of depression and anxiety

were low in both. The highest type of anxiety in both was that of separation (35.5% in both).

Table 5 points to statistically significant agreements between children's and parents' views of depression and total anxiety ($p<0.001$), as well as with all types of anxiety. This was noticed in all types of anxiety as well as in total anxiety.

Table 6 demonstrates a statistically significant strong positive correlation was revealed between parents ($r=0.742$) and children's ($r=0.727$) scores of anxiety and depression. Moreover, statistically significant strong positive correlations were revealed between parents' and children's scores of anxiety and depression, the strongest being between parents and children's depression scores ($r=0.833$).

Table 7 demonstrates that parents' and children's anxiety scores correlated weakly and negatively with the child's age, education level, and duration of illness.

Regarding parents' view of child depression, **Table 8** indicates that depression from child's view was the main statistically significant independent positive predictor. On the other hand, the family income was a negative predictor. The model explains 63% of the variation in the parents' view of depression. As for children's view of depression, the level of mother education, the child's IQ, and exposure to bullying were its negative predictors. The model explains 26% of the variation in this score.

The table also indicates that the child's view of anxiety was the main statistically significant independent positive predictor of parents' view of anxiety, while the level of child's IQ and exposure to bullying were negative predictors. The model explains 60% of the variation in the parents' view of child anxiety.

Concerning children's anxiety from their view, family income was a statistically significant independent positive predictor, whereas the level of child's IQ and exposure to bullying were negative predictors. The model explains only 26% of the variation in child's view of anxiety.

Table 1: Frequency& distribution of intellectually disabilities children regarding Demographic characteristics in the study sample (n=87)

Item	Frequency	Percent
Child age:		
<6	26	29.9
6-	50	57.5
12+	11	12.6
Range	**2-18**	
Mean±SD	**7.8±3.5**	
Median	**7.0**	
Gender:		
Male	52	59.8
Female	35	40.2
Birth order:		
1	40	46.0
2+	47	54.0
Siblings:		
0	8	9.2
1	20	23.0
2+	59	67.8
Range	**0-5**	
Mean±SD	**2.0±1.1**	
Median	**2.0**	
Educational level:		
Preschool	30	34.5
Primary	47	54.0
Preparatory/Secondary	10	11.5

Table 2: Frequency& distribution of families with intellectually disabilities children regarding Demographic characteristics in the study sample (n=87)

Item	Frequency	Percent
Mother age:		
<35	38	43.7
±35	49	56.3
Range	**21-56**	
Mean±SD	**35.1±7.1**	
Median	**35.0**	
Mother education:		
Basic or less	17	19.5
Secondary	46	52.9
University	24	27.6
Mother job:		
Housewife	70	80.5
Working	170	19.5
Father age:		
<40	40	46.5
40+	46	53.5
Range	**27-59**	
Mean±SD	**40.4±7.9**	
Median	**40.0**	
Father education:[@]		
Basic or less	13	15.1
Secondary	48	55.8
University	25	29.1
Father job: [@]		
Employee	42	49.4
Manual worker	43	50.6
Marital status:		
Unmarried (divorced/widow)	8	9.2
Married	79	90.8
Type of family:		
Nuclear	55	63.5
Extended	32	36.8
Family income:		
Insufficient	40	46.0
Sufficient	47	54.0
Residence:		
Urban	53	60.9
Rural	34	39.1
Crowding index:		
<2	65	74.7
2+	22	25.3

(@) Excluding dead

Table 3: Disease characteristics of intellectually disabled children in the study sample (n=87)

Item	Frequency	Percent
Know diagnosis	83	95.4
Duration of illness (years):		
<=5	44	50.6
>5	43	49.4
Range	**1-18**	
Mean±SD	**6.3±3.5**	
Median	**5.0**	
Condition discovered by:		
Family	32	36.8
Doctor	26	29.9
Family/doctor	25	28.7
Family/teacher	3	3.4
Teacher	1	1.1
On treatment	72	82.8
IQ measured	82	94.3
IQ level (Mental deficit):@		
Severe (<40)	12	14.6
Moderate (40-<55)	38	46.3
Mild (55+)	32	39.0
Range	**25-85**	
Mean±SD	**50.3±11.5**	
Median	**50.0**	
Have school problems due to his/her state	62	71.3
Left school due to his/her state	20	23.0
Got medical services at school	23	26.4
Child illness affects:		
Family relationships	55	63.2
School relationships	63	72.4
School achievement	72	82.8
Exposed to bullying	41	47.1

(@) Only 72 of the parents knew their children's IQ

Table 4: Depression and anxiety among intellectually disabled children in the study sample as viewed by parents and their children (n=87)

	Parent view		Child view		X^2 test	p-values
	No.	%	No.	%		
Depression:						
High	12	13.8	11	12.6		
Low	75	86.2	76	87.4	0.050	0.823
Anxiety (high):						
GAD	16	18.4	17	19.5	0.037	0.847
OCD	12	13.8	12	13.8	0.000	1.000
PANIC	13	14.9	13	14.9	0.000	1.000
Separation	30	34.5	30	34.5	0.000	1.000
Social	17	19.5	19	21.8	0.140	0.708
Total anxiety:						
High	12	13.8	11	12.6		
Low	75	86.2	76	87.4	0.828	0.363

Table 5: Relations between children's and parents' views of intellectually disabled children's anxiety and depression

Parents' view	Child view				X^2 test	p-value
	High		Low			
	No.	%	No.	%		
Depression:						
High	8	66.7	4	33.3		
Low	3	4.0	72	96.0	Fisher	<0.001*
ANXIETY:						
GAD:						
High	10	62.5	6	37.5		
Low	7	9.9	64	90.1	Fisher	<0.001*
OCD:						
High	5	41.7	7	58.3		
Low	7	9.3	68	90.7	Fisher	0.01*
PANIC:						
High	6	46.2	7	53.8		
Low	7	9.5	67	90.5	Fisher	0.003*
Separation:						
High	21	70.0	9	30.0		
Low	9	15.8	48	84.2	25.57	<0.001*
Social:						
High	11	64.7	6	35.3		
Low	8	11.4	62	88.6	Fisher	<0.001*
Total anxiety:						
High	6	50.0	6	50.0		
Low	5	6.7	70	93.3	Fisher	<0.001*

(*) Statistically significant at p<0.05

Table 6: Correlation matrix of parents' and children's views of anxiety and depression

	Spearman's rank correlation coefficient			
	Parents' view		Child's view	
	Depression	Anxiety	Depression	Anxiety
Parents' view of:				
Depression	1.000		.833**	.657**
Anxiety	.742**	1.000	.680**	.820**
Child view of:				
Depression			1.000	
Anxiety			.727**	1.000

(*) Statistically significant at p<0.05 (**) Statistically significant at p<0.01

Table 7: Correlations between the parents' and children's views of exposure to anxiety and their characteristics

	Spearman's rank correlation coefficient			
	Parents' view		Children's view	
	Depression	Anxiety	Depression	Anxiety
Mother age	.203	.107	.090	.016
Mother education	-.136	-.010	-.102	.038
Father age	.200	.095	.137	.023
Father education	-.106	-.032	-.098	-.024
Crowding index	.152	-.085	.059	-.130
Child age	.027	-.278**	-.051	-.286**
No. of siblings	.012	-.101	.020	-.013
Birth order	.207	.132	.141	.131
Child education level	.020	-.336**	.008	-.237*
Duration of illness	.055	-.232*	-.028	-.228*

(*) Statistically significant at p<0.05 (**) Statistically significant at p<0.01

Table 8: Best fitting multiple linear regression model for the score of parents' and children's views of child depression and anxiety

	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Score of parents' view of child depression							
Constant	17.47	4.83		3.618	0.001	7.86	27.08
Family income	-5.34	2.58	-0.14	2.068	0.042	-10.48	-0.20
Depression (child)	0.82	0.07	0.78	11.323	<0.001	0.67	0.96
r-square=0.63 Model ANOVA: F=65.58, p<0.001 Variables entered and excluded: parents' age, education, job, crowding index, child age, sex, birth order, education, IQ, duration of illness, DLA dependence							
Score of children's view of their depression							
Constant	101.48	13.43		7.554	<0.001	74.73	128.23
Mother education	-0.31	0.14	-0.22	2.228	0.029	-0.59	-0.03
IQ	-0.71	0.24	-0.30	3.007	0.004	-1.19	-0.24
Exposed to bully	-0.35	0.11	-0.32	3.257	0.002	-0.57	-0.14
r-square=0.26 Model ANOVA: F=8.94, p<0.001 Variables entered and excluded: parents' age, father education, job, income, crowding index, child age, sex, birth order, education, duration of illness, DLA dependence							
Score of parents' view of child anxiety							
Constant	42.87	12.32		3.479	0.001	18.33	67.40
IQ	-0.45	0.18	-0.19	2.520	0.014	-0.80	-0.09
Exposed to bully	-0.18	0.09	-0.16	2.032	0.046	-0.35	0.00
Anxiety (child)	0.72	0.09	0.63	7.757	<0.001	0.53	0.90
r-square=0.60 Model ANOVA: F=37.89, p<0.001 Variables entered and excluded: parents' age, education, job, crowding index, child age, sex, birth order, education, duration of illness, DLA dependence							
Score of children's view of their anxiety							
Constant	77.54	11.88		6.526	0.000	53.88	101.20
Family income	6.72	3.11	0.21	2.164	0.034	0.54	12.91
Exposed to bully	-0.39	0.10	-0.40	4.085	<0.001	-0.58	-0.20
IQ	-0.55	0.21	-0.26	2.642	0.010	-0.96	-0.13
r-square=0.26 Model ANOVA: F=9.01, p<0.001 Variables entered and excluded: parents' age, education, job, crowding index, child age, sex, birth order, education, duration of illness, DLA dependence							

DISCUSSION:

The children with are more prone to suffer from anxiety and depression. If left untreated, these can further impair the child's development and quality of life ***(Rakap and Vural-Batik, 2024)***. The aim of the present study was to assess the anxiety and depression symptoms among children with intellectual disability from their own and their family caregivers' viewpoints. The findings indicate a full concordance between their respective opinions regarding children's feelings of anxiety and depression.

According to the present study findings, almost all of the parents knew their children's diagnosis. The disorder was mostly discovered by them and/or the doctors. Meanwhile, a very small minority were first discovered by the teachers. This points to a major deficiency in teachers' roles who should be able to detect any abnormal behavior or intellectual deficiency among their pupils or the children under their care. In this respect, the important role of teachers in the early detection and referral of children with suspected mental or intellectual disorders has been emphasized in a study in the United States ***(Troxel et al., 2024)***.

The IQ of children in the present study sample varied from 25 to 85, with almost one-half of them having a moderate level of mental deficiency based on their IQ. This wide variation is related to the underlying cause as well as the age at onset. Given the wide variation in the duration of the disorders, this wide variation in IQ is quite expected. In agreement with this, a study in Norway reached the conclusion that the earlier the insult to the brain the more is the severity of the intellectual disability ***(Brandt et al. 2024)***.

Approximately three-fourths of children in the present study sample had school problems attributed to their disorders, with almost one-fourth reported to have left school because of the difficulties and snags they faced, which would increase their risk of suffering anxiety and depression problems. This could certainly have negative long-term effects on their development ***(Kawsar, Yilanli, and Marwaha, 2024)***. Thus, a study in the Netherlands underscored the importance of the early detection of mental health disorders at school, with suitable effective school-based interventions ***(Dekkers and Luman, 2024)***. Yet only around one-fourth of the parents of the children in the present study reported having medical services at school, which is a major deficiency that needs prompt action.

The main objectives of the present study were to assess the level of anxiety and depression of intellectually disabled children from their own views, and the family caregivers' views. The study results demonstrated low rates of anxiety and depression feelings from both parents' and children's views, with only slightly more than one-tenth having feelings of high anxiety and depression. However, in disagreement with this, a study of children with intellectual disabilities in Russia found that about four-fifths of them had high levels of anxiety ***(Prokhorenko and Makarov, 2022)***.

The low prevalence of anxiety and depression in the current study might be attributed to good coping with the condition among their parents. It could also be attributed to family stability and support. In fact, the majority of the parents of intellectually disabled children are currently married, which is of extreme importance in the management of children's disorders since healthy

family functioning is a cornerstone in the growth and development of children, particularly those suffering from physical or mental problems.

In agreement with the foregoing, a study in Hong Kong demonstrated that normal family functioning has a positive impact on the mental health of children ***(Lo, Chen, Chen, Chan and Ip, 2024)***. Similar findings were also reported in a randomized clinical trial in Uganda ***(Karimli, Nabunya, Ssewamala, and Dvalishvili., 2024)***. Nevertheless, these anxiety and/or depression symptoms among children need to be managed to avoid their progress and negative impacts on these children's development as reported in a study in the United Arab Emirates ***(Abdullah, 2024)***.

The present study results revealed that the feeling of separation was the most commonly reported type of anxiety. This could be explained by the relatively young age of the children in the study sample who are mostly dependent on their parents in their ADLs. Thus, they may be more likely to have separation anxiety as they may feel afraid of being alone at home, fear being in crowded places, and are scared to sleep on their own. In agreement with this, in an analysis of anxiety in children, it was demonstrated that separation anxiety was the most common type among them, and it needs to be managed properly to avoid its negative future sequels ***(Feriante, Torrico and Bernstein, 2024)***.

The current study results have also demonstrated full agreement between children's and parents' views of depression and anxiety. Their respective scores were also significantly and positively correlated. This could be explained by the mutual feelings between the parents and their children and the affection of the

parents by the feelings of their children. It was also confirmed by the results of the multivariate analysis where the score of depression from the child's view was the main positive predictor of the parents' view of the child's depression. However, such agreement could also be at least in part due to the bias that could have happened during the interviews where some children needed help from their parents.

Concerning the factors significantly related to children's views of depression, the present study revealed higher depression among those children whose parents had a higher level of education, among male children, and among those with a moderate IQ level. The impact of parents' level of education might be explained by the fact that the parents with a high level of education would be more frustrated by the inability of their children to have proper educational attainment due to their disability. It is also higher in the case of male children, which reflects the male gender preference that is still present in our community, especially the rural community. Similar effects of family socio-demographic characteristics on children's depressive symptoms were revealed in a study in Ethiopia ***(Girma, Tsehay, Mamaru and Abera, 2021)***.

Meanwhile, in the multivariate analyses, family income was identified as a negative predictor of the score of depression from the parents' view. This is quite plausible since a higher-income family may provide better opportunities for the child to overcome or cope with depression feelings. However, the level of the mother's education and the child's IQ were identified as negative predictors of children's view of depression. This is again realistic since a lower IQ means a more severe disability leading to more feelings of depression as

previously discussed. In congruence with this, the positive impact of a higher family income was demonstrated in a study in China ***(Gu, Yang and Li, 2023)***. Moreover, the negative relation between depression and child's IQ is in line with the result of a study carried out in Norway by ***Gravråkmo and colleagues (2023)*** where a significant association was found between children's levels of depression and IQ.

As regards the factors influencing the anxiety feelings as viewed by the present study's children and their parents, the results revealed higher anxiety viewed by the children in families with insufficient income. The results also showed negative correlations between their anxiety scores and children's age, education level, and duration of illness. These results are reasonable for the same reasons previously explained regarding the factors affecting depression. Nevertheless, the multivariate analysis identified parents' view of anxiety as the main predictor of children's view of anxiety, and reciprocally children's view of anxiety as the main predictor of their parents' view of anxiety. Moreover, they are positively and strongly correlated, which indicates the tight mutual relationship between parents' and children's feelings of anxiety.

The child's IQ was also identified as an independent significant negative predictor of the parents' and children's view of anxiety. As previously elaborated, a higher IQ points to a less severe grade of intellectual disability, which would reduce the burden of caregiving for the parents and lighten their feelings of anxiety. This would in turn alleviate their children's anxiety. Moreover, a lower IQ in an intellectually disabled child could indicate the presence of co-occurring conditions, such as autism

spectrum disorder, attention-deficit/hyperactivity disorder (ADHD), and sensory processing difficulties, which can increase their anxiety and depression symptoms. Hence, assessments should consider the presence of these co-occurring conditions and their potential influence on the child's mental symptoms and functioning ***(Scherer, Verhey , and Kuper, 2019)***.

The present study also examined the relationship between anxiety and depression and exposure to bullying of intellectually disabled children. The study results paradoxically demonstrated that higher child exposure to bullying was a negative predictor of anxiety and depression, i.e. decreased these feelings. In disagreement with this, a study in Brazil reported higher rates of anxiety and depression among children exposed to maltreatment and emotional abuse ***(Reis et al., 2024)***. The unexpected inverse relationships found in the present study could be attributed to the nature of the cross-sectional design used in this study where temporal relationships cannot be determined. Thus, the parents of the children who were highly exposed to bullying could have intervened to help in the alleviation of the anxiety and depression symptoms among them. Nonetheless, the issue needs more research for a clear explanation.

CONCLUSION:

In conclusion, the intellectually disabled children as well as their family caregivers in the study setting had relatively low feelings of anxiety and depression. There was close agreement between children's and parents' views of anxiety and depression. The findings suggest that children with intellectual disabilities and their caregivers in the studied population experience relatively low levels of anxiety and depression.

Importantly, there was a strong concordance between children's self-assessments and their caregivers' reports. Factors such as family income, child IQ, and exposure to bullying were found to significantly influence levels of anxiety and depression. These results highlight the critical need for comprehensive support strategies that address both the emotional wellbeing of children and their caregivers.

RECOMMENDATIONS:

The study recommends more collaborative work among the various agencies and sectors to provide more concerted services to the intellectually disabled children and their families. The role of community health nurses as educators, trainers, counselors, and advocates cannot be overemphasized. Further research is needed to evaluate the effectiveness of training interventions on the prevalence of anxiety and depression symptoms among intellectually disabilities children and their families.

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