Urinary Incontinence and Psychological Distress Among Parents of Children with Spina Bifida

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To evaluate the **impact of demographic parameters, urinary system symptoms in children with spina bifida on their parents' anxiety and depression.**

Table 1. Comparison of Parental Demographic Data According to Anxiety and Depression Groups

	HAD Anxiety Group n (%)			
	Mild	Moderate	Severe	P value
Parental Age				
<35 (n:17)	5 (29.4)	6 (35.3)	0	**0.032**
>35 (n:47)	22 (46.8)	4 (8.5)	0	
Parental Educational Level				
Illiterate / Primary School (n: 24)	13 (54.2)	2 (8.3)	0	0.331
Middle School (n:17)	8 (47.2)	3 (17.6)	0	
High School / University (n:23)	6 (26.1)	5 (21.7)	0	
	HAD Depression Group n (%)			
	Mild	Moderate	Severe	P value
Parental Age				
<35 (n:17)	4 (23.5)	2 (11.8)	0	0.451
>35 (n:47)	19 (40.4)	5 (10.6)	0	
Parental Educational Level				
Illiterate / Primary School (n: 24)	8 (33.3)	3 (12.5)	0	0.46
Middle School (n:17)	8 (47.1)	0	0	
High School / University (n:23)	7 (30.4)	4 (17.4)	0	
	BECK Anxiety Group n (%)			
	Mild	Moderate	Severe	P value
Parental Age				
<35 (n:17)	3 (17.6)	6 (35.3)	2 (11.8)	**0.042**
>35 (n:47)	18 (38.3)	10 (21.3)	0	
Parental Educational Level				
Illiterate / Primary School (n: 24)	9 (37.5)	5 (20.8)	0	0.886
Middle School (n:17)	6 (35.3)	4 (23.5)	1 (5.9)	
High School / University (n:23)	6 (26.1)	7 (30.4)	1 (4.3)	

Prospective clinical study including children with spina bifida and their primary caregivers (Oct–Dec 2024).

Demographics were recorded, including UUT findings, febrile UTI history, incontinence, and motor deficits. **Caregiver anxiety and depression** were assessed using the HAD Scale and Beck Anxiety Inventory.

Subgroup analyses evaluated associations between caregiver psychological status and demographic/clinical factors, including UUT damage.

64 children with spina bifida (39.1% boys, 60.9% girls; median age: 7.5 years) and their primary caregivers were evaluated.

Younger parental age (<35 years) was associated with higher anxiety levels (HADS-A, p=0.032; Beck Anxiety, p=0.042).

Urinary incontinence was associated with higher caregiver anxiety and depression scores (p<0.045 and p<0.005, respectively).

Table 2. Comparison of Anxiety and Depression Scores According to Urinary System Symptoms and Motor Impairment

		HAD Anxiety Score Median (IQR)	HAD Depression Score Median (IQR)	BECK Anxiety Score Median (IQR)
Upper Urinary System Damage	Present (n: 30)	8 (6-9)	8 (4.75-10)	9 (5.75-13.25)
	Absent (n: 34)	8 (5-10.25)	7 (3.75-9.25)	8 (5.5-20)
	P value	0.498	0.584	0.531
History of Febrile UTI	Present (n:26)	8 (6-9)	6.5 (3.75-8)	9 (7-12)
	Absent (n: 38)	8 (6-9)	7.5 (4.75-10)	8 (3.75-20)
	P value	0.907	0.312	0.902
Urinary Incontinence	Present (n:30)	8.5 (7-9,25)	8 (6-10)	7.5 (5.5-16)
	Absent (n:34)	7 (5-9)	6 (2-8)	9.5 (5.75-17)
	P value	**0.045**	**0.005**	0.446
Motor Deficit	Present (n:37)	8 (6-9)	8 (5.5-10)	8 (6-15.5)
	Absent (n:27)	8 (5-10)	6 (3-9)	9 (4-16)
	P value	0.612	0.153	0.822
Use of CIC	Present (n:57)	8 (6-9)	7 (4-9.5)	9 (6-16)
	Absent (n:7)	9 (5-10)	7 (4-10)	9 (2-21)
	P value	0.541	0.933	0.99

CIC: Clean Intermittent Catheterization, UTI: Urinary Tract Infection

Younger parental age and urinary incontinence in children with spina bifida were associated with higher caregiver anxiety and depression levels.