Psychometric Properties of The Turkish Version of HEDEN Pain Scale in Pediatric Patients with Cancer: Preliminary Results

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INTRODUCTION

Chronic pain is very common among pediatric patients with cancer. The evaluation of physiological parameters (heart rate, oxygen saturation, blood pressure, salivation) in chronic pain may not always be possible. Long-term cancer pain in children is reported to have complex consequences such as increased irritability, low mood, difficulty in sleep, hostility, loss of appetite, and drop in school performance. When the researches are examined, it is seen that there are many tools used in the diagnosis of acute pain and interventional pain, however it is seen that valid reliable measurement tools that can be used for long-term and chronic pain measurement are limited. This study aimed to examined the psychometric properties of the Turkish version of HEDEN Pain Scale.

METHODS

The study was conducted with children aged 2 to 6 years in the Pediatric Oncology Department. Inclusion criteria;

- The child lies in the oncology ward
- Between 2-6 years of age (age limitation of sample was made because the scale used in the study was suitable for children aged 2-6 years)
- The family accepts to participate in the research
- Pain lasting more than 24 hours
- Lack of psychosocial discomfort
- Verbal communication

Intruments

- The Sociodemographic Characteristics Questionnaire
- HEDEN Pain Scale
- FLACC Behavioral Pain Evaluation Scale

Language equivalence and content validity were assessed by ten experts. Reliability of parallel forms method, Cronbach alpha, validity of language and scope in validity analysis, KMO-Barlett test, principal component analysis, varimax rotation, Hotelling t test methods were used for analysis of reliability and validity.

RESULTS

In the study, 50 pain evaluations were made in 35 children. The children’s mean age 4.45±1.4, 65.7% (n: 23) were girls and 34.3% (n:12) were boys. KGI was 0.90 based on the Davis technique. KMO value was 0.68, p=0.000, Chi-Square=38.581, and the factor analysis showed that the scale was one-dimensional.

Table 1.Sociodemographic Characteristics of Childrens

	Number (N)	Percentage (%)
Gender		
Girls	23	65.7
Boys	12	34.3
Diagnosis		
ALL	14	28
Sarcoma	13	26
Medulloblastoma	9	18
Neuroblastoma	10	20
Astrocytoma	4	8
Cause of pain		
Treatment associated	16	32
Disease associated	32	64
Treatment and disease associated	2	4
Pain area *		
Abdominal / pelvic region	23	44.24
Lower extremity	7	13.46
Upper extremity	22	42.30
Analgesic		
Yes	38	76
No	12	24

* There has been recurrence because the pain area is more than one.

The reliability of the parallel forms r=0.86 p=0.000. The Cronbach alpha value is 0.72. It was determined that children perceived scale items in the same way (Hotelling t test 37.42, p=0.000). The mean score of the scale was 5.3 ± 2.2 (1-10).

CONCLUSIONS

The research findings show that the HEDEN scale is valid and reliable for chronic pain assessment in children with cancer. Also this scale is a faster and easier to use pain assessment tool.

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