VALIDATION OF THE SPANISH VERSION OF THE BREAKTHROUGH PAIN ASSESSMENT TOOL IN CANCER PATIENTS OF MEXICO

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INTRODUCTION

Breakthrough cancer pain has been defined as "a transient exacerbation of pain, produced spontaneously or associated with a specific triggering factor, predictable or unpredictable, despite the fact that the background pattern is stable and well controlled.

More than half of cancer patients can have episodes of breakthrough pain, with an estimated incidence of 2 out of 3 affected by cancer and with a higher prevalence in patients with advanced disease.

It has a negative impact on the quality life of patients and their caregivers. It interferes with activities of daily living, therapeutic dissatisfaction and a high consumption of health resources

BACKGROUND

Currently there are no validated instruments in Spanish that allow the assessment of breakthrough pain in patients with cancer.

OBJECTIVE

To translate and validate the Breakthrough Pain Assessment Tool (BAT) in spanish (mexican).

METHODOLOGY

A prospective, descriptive, longitudinal study was conducted in patients with cancer and pain treated in Mexico. Seventy patients participated, 140 questionnaires were analyzed, all patients were above 18 years-old. Through an interview, information was obtained related to their age, sex, oncological diagnosis, and level of education. The scale was applied twice, with 4 days of difference between both measurements. To assess reliability, the Kappa test and the intra-class correlation coefficient were used. For consistency, Cronbach's alpha test was used.

RESULTS

Reliability varied between 0.746 in the use of analgesic question, up to 1.00 in pain localization, 13 of the 14 items presented values above 0.8, and 12 above 0.9. On average, the consistency was 0.7.

DISCUSSION

We obtained the same alpha of cronbach (0.7) as the scale validated in English and Korean. Our re-test was at 4 days, the original at 24 hours. Possibly, the differences in some items vary, because they were applied in different clinical scenarios, our study is based on patients who attended to pain clinic, where regularly the analgesic treatment is adjusted.

CONCLUSION

The BAT Scale showed a high concordance and acceptable reliability in Mexican cancer patients.

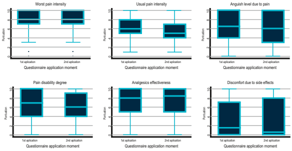

Figure 1. "Breakthrough pain assessment tool" scale numerical items results, according to questionnaire application moment

Table 1. General characteristics of the study subjects

Characteristic	n=70
Sex	
Male	49 (70)
Female	21 (30)
Age, years old	52 ± 20
Study level	
Elementary school	21 (30)
Middle school	21 (30)
High school	20 (28.6)
Graduate	7 (10)
Postgraduate	1 (1.4)
Tumor location	
Breast	18 (25.7)
Genitourinary tract	16 (22.9)
Digestive tract	14 (20)
Hematopoietic system	12 (17.1)
Skin and soft tissues	6 (8.6)
Lung	3 (4.3)
Head and neck	1 (1.4)
Pain classification	
Visceral	22 (31.4)
Osseous	11 (15.7)
Somatic	9 (12.9)
Neuropathic	8 (11.4)
Mixed	20 (28.6)

Number (percentage) or median ± interquartile range are shown.

Table 2. Breakthrough pain Assessment Tool scale results

Variable	n=140
Pain characteristics	
1. Pain location	
In front	82 (58.6)
Behind	40 (28.6)
Both sides	18 (12.9)
2. Pain frequency	
<1 times/day	24 (17.1)
1-2 times/day	53 (37.9)
3-4 times/day	29 (20.7)
>5 times/day	34 (24.3)
3. Pain aggravating factors	110 (78.6)
4. Pain extenuating factors	129 (92.1)
5. Pain duration	
<5 min	27 (19.3)
5-15 min	42 (30)
15-30 min	20 (14.3)
30-60min	15 (10.7)
>60 min	36 (25.7)
6. Worst pain intensity	8 ± 3
7. Usual pain intensity	6 ± 3.5
8. Anguish level due to pain	6 ± 6
9. Pain disability degree	7 ± 5.5
Analgesics	
10. Analgesics use	127 (90.7)
11. Analgesics effectiveness	8 ± 5
12. Time to get the analgesic effect	
No effect	21 (15)
0-10 min	28 (20)
10-20 min	48 (34.3)
20-30min	24 (17.1)
>30 min	19 (13.6)
13. Analgesics side effects	75 (53.6)
14. Discomfort due to side effects	1 ± 8

Number (percentage) or median ± interquartile range are shown.

Table 3. Breakthrough pain Assessment Tool Scale Reliability

Variable	1st application	2nd application	Reliability	Cronbach's alfa
Number of subjects	70	70		
Pain characteristics				
1. Pain location				
In front	41 (58.6)	41 (58.6)		
Behind	20 (28.6)	20 (28.6)		
Both sides	9 (12.9)	9 (12.9)	1 (0.821-1)	0.684
2. Pain frequency				
<1 times/day	12 (17.1)	12 (17.1)		
1-2 times/day	26 (37.1)	27 (38.6)		
3-4 times/day	15 (21.4)	14 (20)		
>5 times/day	17 (24.3)	17 (24.3)	0.941 (0.802-1)	0.664
3. Pain aggravating factors	54 (77.1)	56 (80)	0.915 (0.682-1)	0.695
4. Pain extenuating factors	64 (91.4)	65 (92.9)	0.901 (0.668-1)	0.704
5. Pain duration				
<5 min	13 (18.6)	14 (20)		
5-15 min	21 (30)	21 (30)		
15-30 min	10 (14.3)	10 (14.3)		
30-60min	7 (10)	8 (11.4)		
>60 min	19 (27.1)	17 (24.3)	0.908 (0.785-1)	0.646
6. Worst pain intensity	8 ± 3	8 ± 3	0.971 (0.954-0.982)	0.646
7. Usual pain intensity	6 ± 3	5 ± 3	0.881 (0.809-0.926)	0.625
8. Anguish level due to pain	6.5 ± 6	6 ± 7	0.96 (0.936-0.975)	0.636
9. Pain disability degree	7 ± 6	6 ± 5	0.964 (0.942-0.978)	0.635
Analgesics				
10. Analgesics use	63 (90)	64 (91.4)	0.746 (0.512-0.979)	0.695
11. Analgesics effectiveness	8 ± 5	8.5 ± 5	0.938 (0.9-0.961)	0.713
12. Time to get the analgesic effect				
No effect	10 (14.3)	11 (15.7)		
0-10 min	14 (20)	14 (20)		
10-20 min	24 (34.3)	24 (34.3)		
20-30min	12 (17.1)	12 (17.1)		
>30 min	10 (14.3)	9 (12.9)	0.908 (0.786-1)	0.700
13. Analgesics side effects	38 (54.3)	37 (52.9)	0.914 (0.68-1)	0.683
14. Discomfort due to side effects	1.5 ± 7	0.5 ± 8	0.965 (0.944-0.978)	0.679

Number (percentage) or median ± interquartile range are shown.
Reliability values by kappa test (categorical variables) and intraclass correlation coefficient (numerical variables) with 95% confidence intervals (95% CI) were calculated.
Overall Cronbach's alfa 0.6896 (95% CI 0.6148-0.7644)

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