# Evaluating a Functional Pain Assessment Scale

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***Problem:***

Most pain scales evaluate pain intensity, but no global pain tools assess how acute or chronic pain impacts daily function.

***Aim:***

Our EBP Council created a Functional Pain Assessment Scale (FPAS) for adults. This IRB-approved descriptive correlational study focused on the convergent validity and test-retest reliability of scores on the FPAS, Numeric Pain Rating Scale (NPRS) and Visual Analog Scale (VAS), as well as patient preferences for pain assessment tools.

***Methods:***

Two doctorally prepared advanced practice nurses with pain expertise reviewed the FPAS to establish content validity.

A convenience sample of 68 hospitalized adult inpatients rated their pain on the NPRS, VAS and FPAS (Time 1), with a repeat assessment at 10 minutes (Time 2) for reliability testing. The Mini-Cog™, a brief screening tool, was used to differentiate patients with and without cognitive impairment. A 1-item patient preference instrument about pain assessment tools was also used.

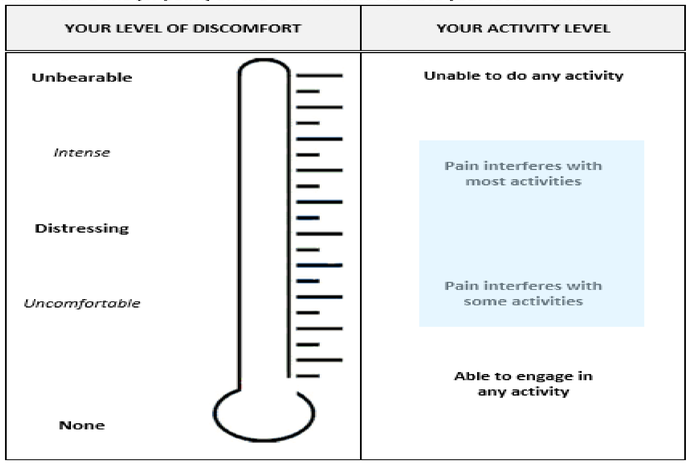
Exclusion criteria included patients with malignant pain and dementia.

## *Functional Pain Assessment Scale:*

**FUNCTIONAL PAIN SCALE**

Please answer the following questions to help us better understand your level of comfort.

1. **Do you have pain?** YES NO If YES, circle if it is: **New** (acute) **or Old** (chronic)?
2. **Location of your pain**: _____
3. **Words that describe your pain** (circle all that apply):
   *Dull - Aching – Sharp – Shooting – Stabbing – Cramping – Burning - Pins/Needles - Throbbing – Pulling – Tight – Tingling – Numb – Heavy – Constant – Intermittent*
4. **What activities does your pain limit you from doing?**
   Examples – Eating, getting up to the chair, walking to the bathroom, watching TV, reading a book, having a conversation
5. Think about how your pain limits your activity.
   **Then draw a line (or point) on the thermometer to note your level of discomfort.**




| | Mean | SD |
|---|---|---|
| Age | 61.5 | 13.7 |
| | n | % |
| Gender: | | |
| • Male | 29 | 42.6 |
| • Female | 39 | 57.4 |
| Ethnicity: | | |
| • Caucasian | 59 | 86.8 |
| • Hispanic | 4 | 5.9 |
| • Black | 3 | 4.4 |
| Pain Type: | | |
| • Acute | 36 | 52.9 |
| • Chronic | 18 | 26.5 |
| • Mixed | 14 | 20.6 |

## *Correlation of Pain Scores*

| Score Comparisons: | | Þ (rho)* COGNITIVELY INTACT | p | Þ (rho)* COGNITIVELY IMPAIRED | p |
|---|---|---|---|---|---|
| Numeric | VAS | .79 | .01 | .83 | .001 |
| Numeric | Functional | .74 | .01 | .60 | .05 |
| VAS | Functional | .78 | .01 | .55 | .05 |

**Spearman rank correlation coefficients*

## *Correlation Between Pain Scores:*
### *Initial Assessment & Pain Reassessment*

| | Þ (rho)* | p |
|---|---|---|
| Numeric (0-10) Pain Scale | .94 | .001 |
| Visual Analog Pain Scale (100 mm) | .82 | .001 |
| Functional Pain Scale | .85 | .001 |

**Spearman rank correlation coefficients*

## *Patient Preference for Pain Assessment Tools*

| | Numeric (0-10) Pain Scale | | VAS Pain Scale (100 mm) | | Functional Pain Scale | | No Preference | |
|---|---|---|---|---|---|---|---|---|
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Preferred Tool | 23 | 33.8 | 8 | 11.8 | 36 | **53.0** | 1 | 1.5 |

## *Conclusions:*

The Functional Pain Assessment Scale has good validity and reliability in cognitively intact adults. Patient preference for the FPAS was high.

Prior to adoption, a test of change in cognitively intact patients is recommended to better understand and document the benefits of using this type of pain scale.

***References:***

Borson S, Scanlan J, Brush M, et al. The mini-cog: A cognitive "vital signs" measure for dementia screening in multi-lingual elderly. *International J Geriatric Psychiatry*. 2000; 15:1021-1027.

Ferreira-Valente M, Pais-Ribeiro J, & Jensen M. Validity of four pain intensity rating scales. *Pain*. 2011; 152:2399-2404.

Gloth M, Scheve A, Stober C, et al. The Functional Pain Scale: reliability, validity, and responsiveness in an elderly population. *J American Medical Directors Association*. 2001; 2(3): 110-114.

McCarthy M, Chang C, Picard A. Visual analog scales for assessing surgical pain. *J American College Surgeons*. 2005; 201(2):245-252.

Ware L, Herr, K, Booker S., et al. Psychometric evaluation of the revised Iowa pain thermometer (IPT-R) in a sample of diverse cognitively intact and impaired older adults: A pilot study. *Pain Management Nursing*. 2015; 16(4):475-482.

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