MEASURING PAIN. VISUAL ANALOG SCALE VERSUS NUMERIC PAIN SCALE: WHAT IS THE DIFFERENCE?

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Outcome measures are helpful in demonstrating patient response to care and therefore an important part of providing best care for our patients. Using paper scoring systems is one way that doctors of chiropractic can document patient progress. This update provides a brief review of the characteristics and applications of the visual analog scale (VAS) and numeric pain scale (NPS).

Visual Analog Scale

The visual analog scale (VAS), as the name implies, uses an analog format, meaning that it represents a continuous range of values.^{1,2} The most common style used in pain measurement (Fig 1) uses a horizontal line measuring exactly 10 cm (100 mm).³ The patient is asked to make a mark on this line, then the line is measured and recorded in millimeters or centimeters (eg, 37 mm or 3.7 cm).⁴ The length of the line is important for this outcome measure, since this tool has been evaluated in this format and the measurement relies on the line being exactly 10 cm long.^{5,6} Therefore for the VAS as a paper measure, photocopying needs to be monitored since this process may alter the length of the scale and invalidate the instrument.

How can one tell it is an analog scale? When the scale is formatted without numbers, it is in an analog format.

Numeric Pain Scale

The numeric pain scale (NPS), a type of numeric rating scale used to measure pain severity, uses whole numbers (Fig. 2). This format uses a discontinuous and segmented scale; thus, whole numbers are reported.^{1,7} The most common styles include a horizontal bar or line format. The line or bar is marked with whole numbers from 0 to 10, however some scales may use different ranges such as 0 to 5.

The patient is asked to mark on the scale to rate their pain and then the number is recorded.⁸ The length of the line is not essential for this scale.

How can one tell it is a numeric scale? When it is formatted with numbers, it is in a numeric format.

Other uses of VAS or NPS

If the patient has experienced pain for an extended period of time, either of these measurement tools may be qualified with descriptors that help define how severe the symptoms are in specific time frames. These 4 time guides are attributed to Von Korff⁹ and have been labeled the Von Korff rating scale:¹⁰

1. present or right now
2. average or typical
3. at worst
4. at best

VAS or numeric scales may also be used for other symptoms not just pain.¹¹⁻¹³ For example, discomfort, stiffness, dyspnea, or itchiness may be measured using either of these scales. Therefore if a patient with asthma presents with dyspnea, the difficulty in patient's perception of breathing may be measured using these scales.

No pain

Most pain

Figure 1. Visual Analog Scale (VAS) for pain severity measurement. *Figure 2. Numeric Pain Scale (NPS).*

Regardless of which scale is used in practice, and whether or not the scale measures for pain or other symptoms, the type should be reported clearly so

that the reader knows which type of scale is being used.

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