

NEW INSIGHTS INTO DISEASE-SPECIFIC PATTERNS OF NEUROPATHIC PAIN SYMPTOMS USING THE painDETECT-QUESTIONNAIRE WITH A SIMPLE STANDARDIZATION PROCEDURE

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Introduction:

The painDETECT questionnaire (PD-Q) was originally developed for the screening of neuropathic components in patients with chronic pain [1]. Beside other items, it measures following 7 symptoms on a 6 item numeral scale (0-5). All of these measures are known to be related with neuropathic pain [1-5]:

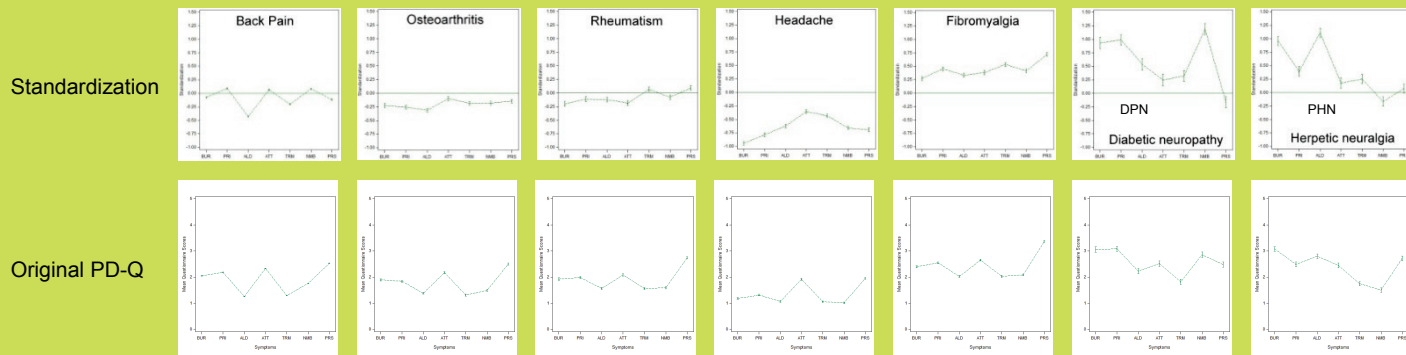
- (1) Do you suffer from a **burning** sensation (e.g. stinging nettles) in the marked areas? (**BUR**)
- (2) Do you have a tingling or **prickling** sensation in the area of your pain (like crawling ants or electrical tingling)? (**PRI**)
- (3) Is light touching (clothing, a blanket) in this area painful? [**Allodynia**] (**ALD**)
- (4) Do you have sudden pain **attacks** in the area of your pain, like electric shocks? (**ATT**)
- (5) Is cold or heat (bath water) in this area occasionally painful? [**Temperature**] (**TRM**)
- (6) Do you suffer from a sensation of **numbness** in the areas that you marked? (**NMB**)
- (7) Does slight **pressure** in this area, e.g. with a finger, trigger pain? (**PRS**)

Since 2006, data from >522,000 assessments at 225659 patients (status April 2012) have been collected in a project register. The questionnaire is widely applied for a lot of indications (table 1).

Aim

It might be interesting to compare PD-Q study data regarding specific conditions with the pool of data sampled in this register. A standardization referring to an "average patient with chronic pain at primary visit" (mean levels of all symptoms=0) has been developed for this purpose.

Results



Condition	total	BUR	PRI	ALD	ATT	TRM	NMB	PRS	PDQ-Score
Back pain	105403	2.05 (1.69)	2.19 (1.63)	1.26 (1.41)	2.34 (1.71)	1.29 (1.45)	1.75 (1.58)	2.53 (1.56)	14.54 (7.35)
Others	54791	2.08 (1.75)	2.11 (1.70)	1.53 (1.55)	2.30 (1.75)	1.41 (1.53)	1.73 (1.64)	2.60 (1.60)	14.75 (7.69)
Headache	7917	1.18 (1.59)	1.31 (1.58)	1.07 (1.43)	1.92 (1.76)	1.06 (1.43)	1.01 (1.44)	1.95 (1.65)	10.33 (7.26)
Osteo-arthritis	6 957	1.90 (1.67)	1.84 (1.63)	1.38 (1.47)	2.17 (1.70)	1.31 (1.46)	1.49 (1.55)	2.50 (1.54)	13.55 (7.45)
Fibro-myalgia	7 454	2.40 (1.67)	2.55 (1.57)	2.02 (1.55)	2.65 (1.66)	2.03 (1.66)	2.08 (1.53)	3.37 (1.38)	18.25 (7.38)
Rheumatism	4 698	1.92 (1.61)	1.98 (1.57)	1.57 (1.46)	2.09 (1.65)	1.56 (1.49)	1.59 (1.47)	2.74 (1.46)	14.44 (7.20)
Cerv. Spine Syndrome	5 941	1.96 (1.68)	2.24 (1.65)	1.26 (1.43)	2.17 (1.70)	1.24 (1.45)	1.74 (1.59)	2.60 (1.54)	14.32 (7.34)
Herpetic neuralgia	1 377	3.08 (1.61)	2.49 (1.71)	2.80 (1.62)	2.45 (1.80)	1.75 (1.54)	1.50 (1.63)	2.72 (1.56)	17.45 (7.32)
Cancer pain	1 313	2.01 (1.83)	1.73 (1.74)	1.48 (1.57)	1.99 (1.86)	1.10 (1.44)	1.59 (1.73)	2.29 (1.68)	13.09 (7.97)
CRPS	1 241	2.65 (1.65)	2.50 (1.58)	2.52 (1.63)	2.64 (1.68)	2.19 (1.70)	2.20 (1.65)	3.17 (1.44)	18.67 (7.67)
Standardi-zation		2.12 (0.51)	2.10 (0.39)	1.69 (0.58)	2.27 (0.25)	1.50 (0.39)	1.67 (0.33)	2.65 (0.40)	14.94 (2.56)

Table 1: Descriptive statistics (Mean (SD)) for PD-Q-symptoms used for standardization (conditions with ≥ 1000 cases) and derived values (red cells) used for standardization (mean \pm 95% confidence interval) of original values (left) and standardized PD-Q-Items (right) by condition.

Discussion

A simple standardization of values for PD-Q questionnaire has been developed in order to allow the comparison of (neuropathic) pain related symptoms of specific conditions with an "average patient with chronic pain at first visit".

The approach is demonstrated using condition specific data from the register. In comparison with original values (figure 1, left) the distributions using standardized values (figure 1, right) directly reflect physicians' knowledge about disease specific characteristics of symptoms.

The application of PD-Q together with this simple standardization allows to compare populations between studies, as well as within studies, in a way which is in concordance with experience of daily practice.

References

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In memory of our friend and colleague Uwe Schmidt, who helped to develop the PD-Q.