Self-Training in Pain Assessment as a Mediator of the Prognostic Performance of Pain Variability

TU499

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INTRODUCTION

- **Baseline Pain Variability** (PV) is often cited as a key **prognostic** factor[1-3]
- This variability is **caused** by
    - **Fluctuating pain levels**
    - **Inability to accurately assess pain**
- This **inability** can be **associated to patients prone to contextual influence**[3]
  → More likely to present a strong placebo response
- PV could also be a **simple measure for Regression-to-the-Mean**[4]
  → Accounting for RTM, PV would no longer be prognostic
- This analysis aims to **explore the role of PV** in patient's prognosis
- With a **focus** on its relationship with **self-training through daily reporting**[5]

METHODS

- **Data from 3 recent OA RCTs** were used for a total of **469 subjects**
- **Pain level was assessed daily** in a diary during Baseline period
- The **response** was assessed using **3 efficacy measurements**:
    - **APS**: Weekly average of the daily pain reporting
    - **WOMAC Pain** and **WOMAC Physical Function** subscales
- **PV** was **computed as the weekly standard deviation** (SD) at each baseline week
- The **partial correlation of PV with the response** was evaluated
  This excluded the effect of baseline, RTM, and differences between studies

RESULTS

- **PV significantly decreases by 17%** after 3 weeks
- Partial **correlation of PV was significant** with all endpoints
- This **correlation was larger for subjects** who reduced their PV through **a long baseline period** and the associated self-training
- On the contrary, **no significant correlation** was observed for subjects with **a short baseline period**

CONCLUSION

- **Longer Baseline period** and associated self-training **reduces Pain Variability** (PV)
- This **increases its correlation with the response**.
  → **Need for high-quality**, noise-free **measurements** to best evaluate correlations
- PV plays a **significant but limited prognostic role** in patient response
  → Accounting for PV should only be a **part of a multivariate strategy**

Pain Variability is more Prognostic after Self-Training

Take a picture to access to a video presentation, the full paper, and more insights

SUPPLEMENTARY MATERIAL

	1st Week	2nd Week	3rd Week	4th Week
Average PV	0.85	0.77	0.70	0.70
Reduction	-	9% (*)	17% (***)	17% (***)

*: p<0.05, **:p<0.01, ***:p<0.001

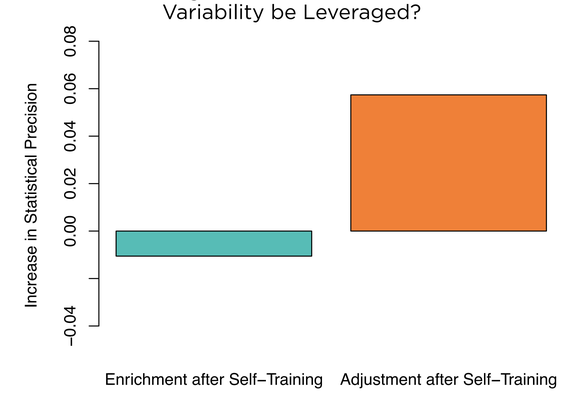
Decrease of the Pain Variability through continuous daily reporting during baseline period.

Population	APS	WOMAC-P	WOMAC-PF
All	14.3%**	14.0%**	12.8%**
Long Baseline	20.6%***	20.1%***	19.8%***
Short Baseline	4.7%	1.8%	0.2%

*: p<0.05, **:p<0.01, ***:p<0.001

Partial correlation of pain variability with the response measured using three different endpoints. This partial correlation excluded the effects of baseline score, regression to the mean, and differences between studies. Subjects are separated based on a baseline duration longer or shorter than 3 weeks.

How Can the Prognostic Performance of Baseline Pain Variability be Leveraged?



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