POSITIVE ORAL COMMUNICATION INTERACT WITH PAIN MANAGEMENT STRATEGIES

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BACKGROUND

A positive communication about an intervention can lead to lower anxiety and better pain management through the increase of the patient trust [*Carlino et al. 2016*]. However, an important issue is to understand how communication interacts with modalities of pain management.

The present study aimed to determine whether a positive oral communication restricted to the effect of intervention has an impact on analgesic effect of touch and verbal expression during an experimental induced pain.

METHODS

We compared **pain ratings** (visual analog score, **VAS**) in **51 healthy participants** (18-30 years old) underwent a **Cold Pressor Test twice** (**CPT T1, T2**). **During T2,** 2x2 groups received a pain management modality [verbal (VB) or touch (TO)] with or without previous oral standardized communication [preconditioned (Pr), non-preconditioned]. A last control group (CT) received no modality nor preconditioning at T2. Before the first test, each participant had to fill out the **Multidimensional Assessment of Interoceptive Awareness (MAIA)**

1st Test T1 - Referential	**MAIA + CPT & VAS**
2nd Test T2 - Experimental	**CPT & VAS**

GROUPS (n)*	MODALITY	PRECONDITIONING
CT (11) :	NO	NO
VB (10) :	WITH Verbal	NO
TO (10) :	WITH Touch	NO
PrVB (10) :	WITH Verbal	WITH
PrTO (10) :	WITH Touch	WITH

*Groups matched in age and gender

CPT : consisting in immersing the hand in cold water (1°C) for as long as possible (max. 5 min.) [*Mitchell et al. 2004*].

Verbal modality : orally describe sensations related to pain to the experimenter

Touch modality : benefited from physical two-hand contact from the experimenter

Preconditioning : consisting in arguing about the positive effect on pain of verbal and touch modality respectively

RESULTS

MAIA Scores (1w-ANOVA)**:** Groups did not differ [F(4,46) = 2.394, p = 0,064]. **VAS ratings** (rmANOVA)**:** showed a main effect of times [F(1, 46) = 72.2, p < 0.001], and an interaction between times and groups [F(4,46) = 3.02, p = 0.027]. Post-hoc test revealed decreased VAS ratings at T2 compared to T1 in PrVB and PrTO groups (both p ≤ 0.001). **dVAS (T2-T1) scores** (1w-ANOVA)**:** A significant difference was found between groups [F(4, 46) = 4.08, p = 0.013]. A posthoc test indicated a significant decrease in dVAS scores in PrVB group compared to VB (p = 0.013), but not between PrTO and TO (p > 0,05). **Correlations** (Spearman's rank)**:** revealed negative association between dVAS and MAIA scores in PrTO group [r = - 0.804, p = 0.005], especially for emotional awareness (p = 0.003), body listening (p = 0.015) and self-regulation (p = 0.036).

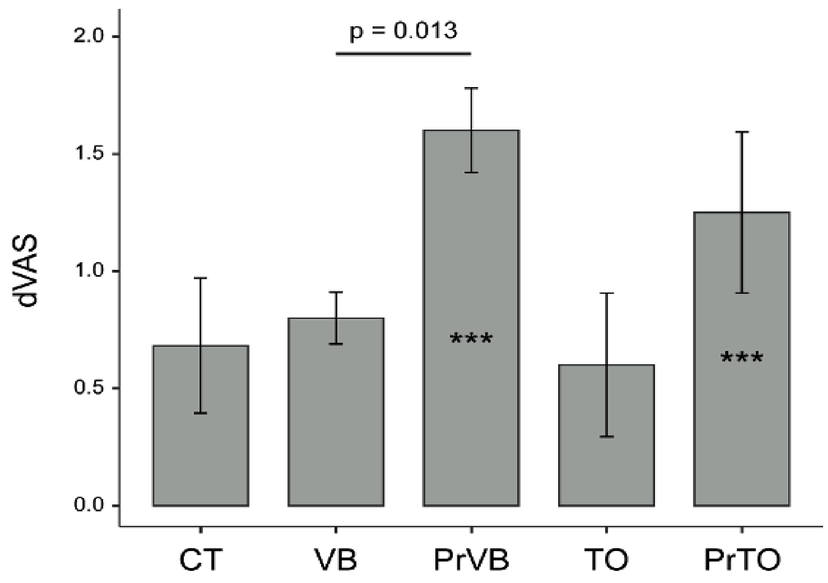

Figure 1: dVAS between groups. Asterisks in the bars correspond to a significant difference between VAS at T1 and T2 within groups (*** p < 0.001). Error bars correspond to standard error.

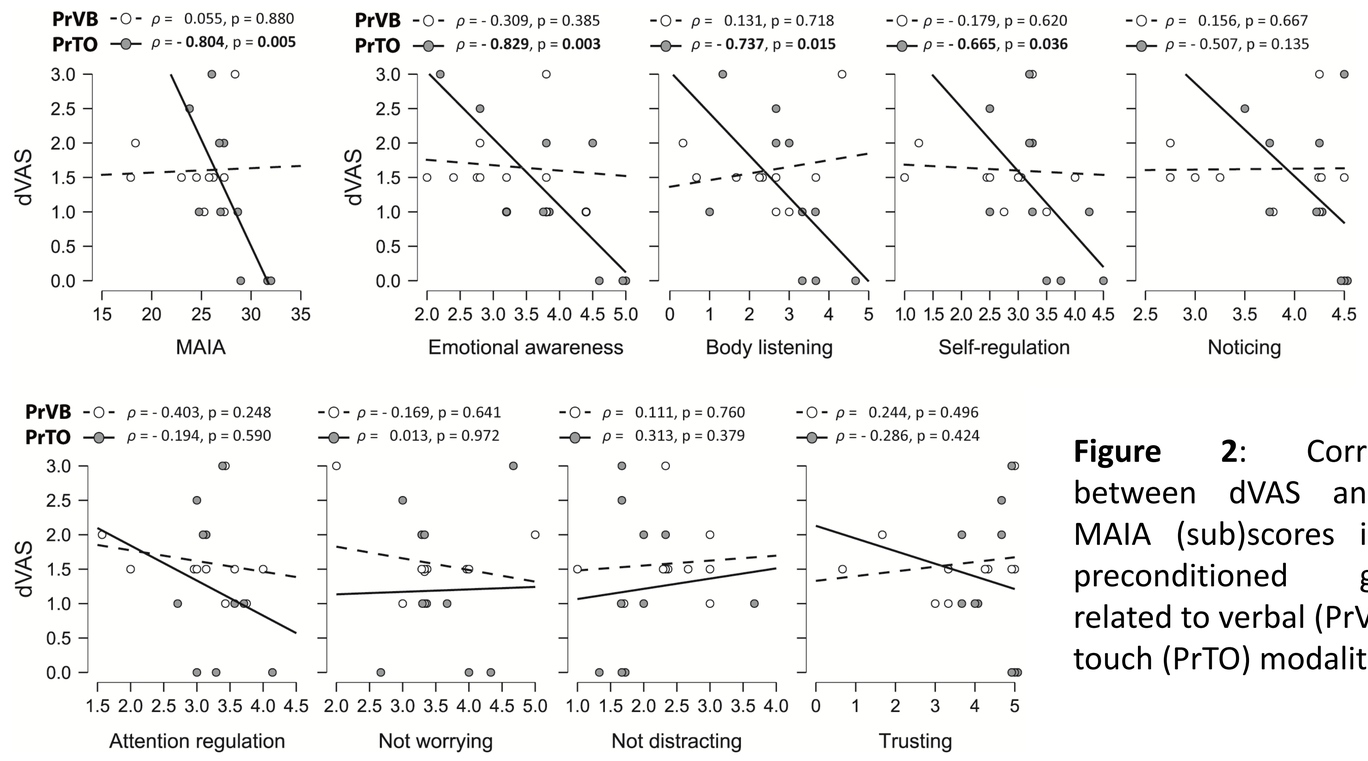

Figure 2: Correlation between dVAS and the MAIA (sub)scores in two preconditioned groups, related to verbal (PrVB) and touch (PrTO) modalities

DISCUSSION

As expected, preconditioning induced a significant decrease in pain at T2, emphasizing its important role in pain management [*Colloca et al. 2012*]. Interestingly, our results also highlighted some differences between the two preconditioned groups. Our data revealed that the emotional awareness of participants interacts negatively with the preconditioning effect in the preconditioned touch group. Touch, being intimate and personal, would have diminished the trusting effect of preconditioning in some of the participants which find it intrusive. **It is therefore important to note that the communication must be cautiously adapted, according to the treatment, to the personality of each patient.**

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