

# SYMPTOM SEVERITY IN BURNING MOUTH SYNDROME ASSOCIATES WITH PSYCHOLOGICAL FACTORS

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## Background and aims

Burning mouth syndrome (BMS) patients are psychologically distressed, but whether this associates with symptom severity is not known. The aim was to investigate the association of psychological factors with pain intensity and interference in BMS.

## Methods

52 women (mean age 63.1, SD 10.9) with BMS participated. Pain intensity and interference data was collected using 2-week pain diaries. Psychological factors were evaluated using Depression scale (DEPS), Pain anxiety symptom scale (PASS) and Pain vigilance and awareness questionnaire (PVAQ). The local ethical committee approved the study.

Patients were divided into groups based on pain severity distribution tertiles: low intensity (NRS  $\leq$ 3.7) or interference) (NRS  $\leq$ 2.9) (tertiles 1-2, n=35) and moderate to intense intensity (NRS  $>$ 3.7) or interference ( $>$ 2.9)(tertile 3, n= 17). T-test, Wilcoxon Test and Pearson's Correlation Coefficient were used in the analyses.

## Results

Patients reporting more intensive and interfering pain, i.e. those in the highest intensity and interference tertiles, reported overall significantly more depression symptoms compared to patients with less severe symptoms (Table 1). Further, more than half of the patients, viz. 9/17, in the highest intensity and interference tertiles had DEPS scores at or above the cut-off score for depressive symptoms compared with less than a third of the patients, viz. 10/35, with lower pain intensity or interference.

	All Mean (SD)	Pain intensity tertiles			Pain interference tertiles		
		Tertiles 1-2 NRS $\leq$ 3.7 Mean (SD)	Tertile 3 NRS $>$ 3.7 Mean (SD)	P	Tertiles 1-2 NRS $\leq$ 2.9 Mean (SD)	Tertile 3 NRS $>$ 2.9 Mean (SD)	P
DEPS (N=52)	7.9 (6.7)	6.5 (5.6)	10.9 (7.9)	0.0247	6.4 (5.6)	11.1 (7.7)	0.0169
PASS (N=52)	27.0 (19.1)	23.2 (16.5)	34.9 (18.5)	0.0359	23.1 (16.5)	35.2 (21.8)	0.0293
PVAQ (N=50)	46.5 ( 16.1)	41.0 (14.9)	57.2 (13.1)	0.0003	40.9 (14.5)	57.4 (13.6)	0.0004

The patients in the highest intensity and interference tertiles also displayed significantly more pain-related anxiety symptoms than those with less severe pain symptoms (Table1).

Patients in the highest intensity and interference tertiles were more preoccupied with the pain compared with patients with less severe pain (Table 1).

The sum core of the pain vigilance questionnaire correlated significantly with pain intensity ( $r= .36567$ ,  $P= .0090$ ) and interference ( $r= .48153$ ,  $P = .0090$ ). Depression ( $r= .39940$ ,  $P = .0034$ ) and pain anxiety symptoms ( $r= .45234$ ,  $P = .0008$ ) correlated with pain interference.

## Conclusions

**Symptom severity in BMS associates with symptoms of psychological distress emphasizing the need to develop multidimensional diagnostics for the assessment of BMS pain.**