

# CORRELATION BETWEEN STRESS AND OROFACIAL PAIN LEVEL IN ORAL SQUAMOUS CELL CARCINOMA (OSCC) PATIENTS

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## Introduction

Cancer constitutes an enormous burden on the society in more and less economically developed countries alike<sup>1</sup>. Around the world, oral carcinoma especially OSCC was the most common that often happens<sup>2</sup>. There was some clinical features of OSCC patients, such as lesion of the oral cavity, dysphagia, otalgia, paresthesia, and orofacial pain<sup>3</sup>. Pain experienced by the cancer patient may cause stress, anxiety, depression, and decreases quality of life<sup>4-5</sup>. The current study aimed to determine the correlation between stress and pain level at the orofacial region in OSCC patients.

## Methods & Materials

Thirty seven participants (aged 12-74 years old; 22 males, 15 females) that attended the outpatients clinic at the oncology ward, Hasan Sadikin General Hospital, Bandung, Indonesia that were diagnosed with a stage 2 to 4 of OSCC from May to August 2015 and have not commenced any treatment or consumed any analgesic drug were recruited in this study. The participants were interviewed by using the Thermometer Distress (DT) questionnaire to measure the level of stress and Visual Analogue Scale (VAS) questionnaire to measure the level of orofacial pain experienced at the time of the interview. The data were then analyzed by the Spearman correlation test.

## Conclusion

The current study concluded that there is a very strong correlation between stress and orofacial pain level in OSCC patients. Nevertheless, further studies in this area are needed.

## Results

The result revealed that stress has a significant ( $p < 0.01$ ) and strong correlation ( $r = 0.83$ ) with orofacial pain level in OSCC patients. It was also revealed that there was a positive relationship between these two variables, which means, when the level of stress increases, it is more likely that the patient will experience more pain at their orofacial area.

		Orofacial Pain	Stress
Spearman's Rho	Orofacial Pain	Correlation Coefficient	1,000
		Sig. 2 tailed	,827**
		N	37
	Stress	Correlation coefficient	,827**
		Sig. 2 tailed	1,000
		N	37

Table 1. Result of spearman analysis

## Discussion

The current study focused on determining the correlation between stress and pain level at the orofacial region in OSCC patients in Oncology Ward, Hasan Sadikin General Hospital, Bandung over period of May to August 2015. In the current study, the result revealed that stress has a significant and strong correlation with orofacial pain in OSCC patients. It means that the higher the level of stress, it is more likely that the patient will experience more orofacial pain. This particular finding is inline with previous research that showed stress has a correlation with orofacial pain by some mechanism<sup>6-7</sup>. Furthermore, this finding is also inline with previous research by Portenoy that showed stress in cancer patients has a correlation with pain ( $p < 0,001$ )<sup>8</sup>.

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