

## **Communication skills training: A study of residents' psychological and physiological variables which facilitate or inhibit the learning of assessment skills.**

**Background.** Assessment skills have been recognized as core skills in breaking bad news. No studies have yet explored residents' psychological and physiological variables which facilitate or inhibit the learning of assessment skills. This study aimed to identify residents' psychological characteristics and physiological arousal, which may predict the learning of assessment skills in the context of a communication skills training.

**Methods.** In this randomized controlled study, the learning of assessment skills has been measured in a breaking bad news simulated consultation performed before and after a communication skills training. This simulated consultation has been recorded and transcribed. Assessment skills were tagged with a computer assisted program (LaComm). Residents' psychological characteristics have been measured before communication skills training. Residents' physiological arousal (heart rate) was monitored continuously during a 20 minutes simulated breaking bad news consultation performed before training. Linear regression has been conducted to assess the associations between residents' psychological characteristics and physiological arousal at baseline and the learning of assessment skills.

**Results.** Sixty-one residents were included in the study. Psychological and physiological variables at baseline explained 43% of the variance in residents' learning of assessment skills. Results showed negative associations between residents' learning of assessment skills and emotional-focused coping (Beta=  $-.287$ ,  $p=.01$ ) and self-efficacy beliefs as regard detection of patient distress (Beta=  $-.431$ ,  $p< .001$ ). Results showed positive associations between residents' learning of assessment skills and support-focused coping (Beta=  $.360$ ,  $p< .001$ ) and physiological arousal (Beta=  $.250$ ,  $p<.05$ ).

**Conclusion.** Some residents' psychological and physiological variables directly related to breaking bad news-task are predictors of learning of assessment skills in the context of communication skills training.

**Research Implications.** Psychological factors and physiological arousal should be included in models designed to understand the learning process of complex communication skills such as breaking bad news.

**Clinical Implications.** Trainees and trainers should be aware that the learning of complex skills is heterogeneous and is related to trainees' self-efficacy beliefs, coping skills and physiological arousal directly related to the task. This heterogeneity indicates the need to implement more personalized training techniques.

**Acknowledgement of Funding.** This research program was supported by the « Fonds National de la Recherche Scientifique - Section Télévie » of Belgium and by the C.A.M., training and research group (Brussels – Belgium).