

# Development of a work climate scale in emergency health services

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An adequate work climate fosters productivity in organizations and increases employee satisfaction. Workers in emergency health services (EHS) have an extremely high degree of responsibility and consequent stress. Therefore, it is essential to foster a good work climate in this context. Despite this, scales with a full study of their psychometric properties (i.e., validity evidence based on test content, internal structure and relations to other variables, and reliability) are not available to measure work climate in EHS specifically. For this reason, our objective was to develop a scale to measure the quality of work climates in EHS. We carried out three studies. In Study 1, we used a mixed-method approach to identify the latent conceptual structure of the construct work climate. Thus, we integrated the results found in (a) a previous study, where a content analysis of seven in-depth interviews obtained from EHS professionals in two hospitals in Gibraltar Countryside County was carried out; and (b) the factor analysis of the responses given by 113 EHS professionals from these same centers to 18 items that measured the work climate in health organizations. As a result, we obtained 56 items grouped into four factors (work satisfaction, productivity/achievement of aims, interpersonal relationships, and performance at work). In Study 2, we presented validity evidence based on test content through experts' judgment. Fourteen experts from the methodology and health fields evaluated the representativeness, utility, and feasibility of each of the 56 items with respect to their factor (theoretical dimension). Forty items met the inclusion criterion, which was to obtain an Osterlind index value greater than or equal to 0.5 in the three aspects assessed. In Study 3, 201 EHS professionals from the same centers completed the resulting 40-item scale. This new instrument produced validity evidence based on the internal structure in a second-order factor model with four components (RMSEA = 0.079, GFI = 0.97, AGFI = 0.97, CFI = 0.97; NFI = 0.95, and NNFI

= 0.97); absence of Differential Item Functioning (DIF) in 80% of the items; reliability ( $\alpha = 0.96$ ); and validity evidence based on relations to other variables, specifically the test-criterion relationship ( $r = 0.680$ ). Finally, we discuss further developments of the instrument and its possible implications for EHS workers. © 2018 Sanduvete-Chaves, Lozano-Lozano, Chacón-Moscoso and Holgado-Tello.

Construct validity

Content validity

Criterion validity

Emergency health services

Mixed methods

Reliability

Work climate