Assessment of the Wong-Baker FACES® Pain Rating Scale’s Inter-Rater Reliability when applied to standardised adult patients by paramedics in Qatar: a pilot study

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CONCLUSION

This study has shown that an allocation of a pain ratings by paramedics in adult patients, using the Wong-Baker FACES® Pain Rating Scale, is not an accurate or precise method of pain assessment, nor for the purpose of its management.

BACKGROUND: The appropriate assessment of pain, in the prehospital setting of Qatar, has been identified as a Key Performance Indicator for its service delivery. Currently, patients’ pain is assessed by ambulance paramedics, service wide, using the standard Wong-Baker FACES® Pain Rating Scale. Although the scale was originally designed as a pain self-rating evaluation for children, paramedics are required to allocate pain ratings to adult patients using this scale.

METHOD: A prospective, quantitative pilot study was conducted to assess whether ambulance paramedics could accurately and precisely determine pain ratings in adults using the FACES® scale. Five members of the ambulance service were prepared as standardised simulated patients (vignettes) with varying pain ratings and associated facial expression. Paramedics had to individually assess each patient vignette presenting in random order and record their pain rating allocation.

RESULTS: 35 Paramedics participated and completed 175 pain assessments. Overall accuracy was poor with sensitivity at 29.7% and specificity at 92.9%. Overall precision through Inter-Rater Reliability was poor at $\kappa = 0.146$. There was further overall poor correlation of pain ratings across the vignettes, with some inter-class resemblance. An Analysis of Variance also indicated a significant difference between pain rating allocations.

Wong-Baker FACES® Pain Rating Scale

0 No Hurt
2 Hurts Little Bit
4 Hurts Little More
6 Hurts Even More
8 Hurts Whole Lot
10 Hurts Worst


5 Vignettes
35 Paramedics

175 Assessments
$\kappa = 0.146$