

YUCK: THE INFLUENCE OF DISGUST ON THE VENIPUNCTURE EXPERIENCE IN ADOLESCENTS AND ADULTS

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BACKGROUND AND AIMS

In our previous study involving children aged 3-9 years undergoing blood collection via venipuncture or finger prick, we found evidence that self-reported disgust was a unique predictor for self-reported pain intensity, while anxiety/fear was also confirmed as significantly associated (potential predictor) with self-reported pain and observed pain-related distress. In children, we had applied a Color Analog Scale (CAS) for disgust with the upper anchor "very much yuck". "Yuck" was considered an age appropriate word for disgust. Although the CAS has been validated for children as young as five in pain contexts, we were not able to validate the derived yuck scale in children in this study. Thus, the first objective of the present study in adolescents and adults was to validate the CAS-Yuck scale. The entire study was replicated, albeit with some necessary modifications, in adolescents and adults.

METHOD

This was a cross sectional observational study in which we recruited a convenience sample of consenting adults and adolescents undergoing venipuncture. Ethics approval was obtained from the HREC of the South East Sydney Illawarra Area Health Service. Data were collected on disgust propensity (Disgust Scale-Revised, DS-R), pain-catastrophising (Pain Catastrophising Scale) and state anxiety (STAIS) of participants and of the parents of adolescents. The investigator measured participants' pain-related distress (FLACC) during the venipuncture. Following the procedure, participants reported their state anxiety, pain (CAS-Pain) and disgust levels (CAS-Yuck) in relation to the needle experience. Using SPSS, the analysis included univariate and multivariate tests of association.

RESULTS

Adults (N=50) and adolescents aged 13-18 (N=46) were relatively homogeneous, with significant between-group differences emerging only for pain-catastrophising, which was higher amongst adolescents. The results which follow are for the combined sample, except for those analyses involving the parents. Significant positive correlations were detected between CAS-Yuck and the DS-R ($r=0.38$, $p<0.01$), even when controlling for anxiety and age. Self-reported disgust, anxiety and pain-catastrophising were correlated with self-reported pain and with observable pain-related distress. In multivariate analyses, disgust uniquely predicted self-reported pain ($\beta=0.39$, $p<0.001$) but was not a significant predictor of observed distress when controlling for anxiety, pain-catastrophising and age. However, anxiety uniquely predicted self-reported pain ($\beta=0.35$, $p<0.001$) and observed distress ($\beta=0.36$, $p<0.001$). Self-reported disgust was a stronger correlate and potential predictor of pain intensity than anxiety. Parental and adolescent child state anxiety ($r=0.42$, $p<0.01$) and disgust propensity ($r=0.47$, $p<0.01$) were positively correlated.

CONCLUSION

The use of the CAS-Yuck Scale was validated in adults and adolescents. Self-reported disgust was the strongest correlate and potential predictor of self-reported pain intensity, while anxiety/fear was a significant predictor of self-reported pain and observed pain-related distress. Parental and adolescent disgust levels were correlated, providing insight into the developmental acquisition of disgust.