Exploration of Anger Constructs in Acute and Chronic Pain Patients versus Community Patients

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ABSTRACT

Introduction: Chronic pain patients (CPPs) are generally reported to be angry but these reports are limited by lack of appropriate control groups. CPP anger has been shown to be associated with the wish to sue1 and violent ideation against2 physicians.

Objectives: of this study were (a) Determine and compare the prevalence of forms of anger (FOA; anger, hostility, aggression, anger-in, anger-out, chronic anger) in community non-patients (n=478), community patients (n=158), acute pain patients (n=326), CPPs (n=341); and (b) Develop FOA predictor models for APPs/CPPs.

Methods: A large set of variables including the FOA items was administered to the above groups who were compared for FOA endorsement. APPs and CPPs affirming the anger and chronic anger items were compared to those not affirming on all available variables with significant variables (p<0.001) entered into predictor models.

RESULTS

Relative Risk of Affirmation for the Six FOA (Table 1). CPPs typically had the highest risk for each FOA. CPPs were significantly more likely to endorse “anger” and “chronic anger.” APPs were not significantly more frequently likely than community patients to endorse any of the FOAs.

Final Logistic Regression Models to Predict “Anger” as the Dependent Variable for APPs and CPPs (Table 2). For APPs, the final model chi-square was significant ($\chi^2 = 112.74$, p<0.001) and explained 63% of the variance in the dependent variable according to Nagelkerke $R^2$. The model overall classified 78% of the subjects correctly, which was significantly better than the base rate prediction of 62.5%. Sensitivity of the model was 67% and specificity was 87%.

DISCUSSION/SIGNIFICANCE

In support of previous literature, this study has demonstrated that CPPs are more angry than controls (community patients) and APPs but only for specific types of anger: general anger and chronic anger.

In support of the theoretical underpinnings for anger, the BHH 2 hostility scale was the strongest predictor for general anger and chronic anger in both APPs and CPPs.

Our models identified some new and unique variables as being predictive for general and chronic anger: anxiety, perseveration, somatization, and borderline characteristics. It is well accepted that borderline syndrome is associated with significant emotional expression of anger.3 The developed models are potentially clinically useful for identifying general and chronic anger in APPs and CPPs. As both models predicted these variables at significantly greater rate than the base rate prediction.

It is to be noted that for all 4 models, the sensitivity of the models was significantly lower than the specificity which in all 4 models was extremely high.

The results of this study indicate that clinicians should actively screen CPPs for the presence of anger in order to engage those patients in anger management treatment.