

Utility of the health belief model to assess predictors of rabies preventive measures

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Abstract

Introduction:

Rabies is a fatal zoonotic viral disease that is spread to people through animal bites. Around 35,000-50,000 individuals worldwide die of rabies each year, of which more than 99% of deaths occur in the developing countries. Since legislative actions does not appear to have been effective in reducing the incidence and severity of the bites in some developed countries, it seems public education is key to reducing animal bites. For effective education, understanding factors affecting the preventive and protective behaviors based on appropriate health behavior change models is important. So, the study tried to examine the relationship between Health Belief Model (HBM) constructs and rabies preventive measures.

Materials and Methods:

In the cross-sectional study, a HBM-based researcher-designed questionnaire was completed by 204 participants who were selected via cluster sampling design from urban families of the Abadeh, Iran. The psychometric properties of the questionnaire were established. Descriptive statistics, independent sample *t*-test, bivariate correlations, and stepwise multiple regression analysis were applied to analyze data using SPSS 19. The level of significance was set *a priori* at 0.05.

Results:

The scale mean for the total knowledge of the participants about rabies was 14.12 ± 6.04 out of 29. Participants' preventive behaviors were significantly correlated with their total knowledge, perceived susceptibility, perceived severity, perceived benefits and cues to action, which 19% of the variation in these behaviors were explained by perceived benefits and cues to action. Protective activities of participants who kept animals in their house had statistically significant correlation with their total knowledge score and cues to action. 32.1% of the variation in these activities was explained by cues to action.

Discussion:

Findings indicate that participants had not enough knowledge about routes of infecting by rabies and how to prevent it. The most powerful predictors for preventive behaviors and protective activities were perceived benefits and cues to action, respectively, which indicate the importance of the availability of accurate information about efficacy of these behaviors, from sources that are easily accessible, such as healthcare providers and veterinary professionals.

Conclusion: