DEVELOPMENT OF AN INSTRUMENT THAT ASSESSES INDIVIDUAL’S BURN PREVENTION KNOWLEDGE

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Background Currently no valid and reliable instrument to assess an individuals burn prevention knowledge exists. Therefore, it is difficult to evaluate if interventions to increase burn prevention knowledge are effective. Therefore we aimed to develop and test an instrument that assesses individuals burn prevention knowledge. As a result, the effect of interventions aimed to increase burn prevention knowledge can be investigated.

Methods A focus group comprised of 22 American Burn Association burn prevention committee members first prioritised areas that individuals with burn prevention knowledge should be well informed about (ie, scalds, gasoline elders, abuse, juvenile fire setters). Then questions were developed to assess an individuals knowledge in these priority areas (39 questions) by the author and tested for reliability and validity. Factor analysis techniques were utilised to develop the final survey (15 questions). The final survey was administered and tested in a group of paediatric, emergency department and clinic nurses for reliability and validity.

Results From the original survey (39 questions), the factor analysis suggests that 15 questions strongly load on a factor and explained 76% of the variance in responses. The five factors with eigenvalues greater than 1.0 were as follows: scalds, gasoline, elders, abuse and juvenile fire setters. These 15 questions represented the final survey to be administered to evaluate burn prevention knowledge in nurses. The final survey developed has moderate inter-rater reliability (Cohens κ=0.578), high intrarater reliability (ICC=0.713) and good internal consistency (Cronbach’s α=0.604. In addition, the final survey was determined to have face validity as well as construct validity (five components had eigenvalues greater than 1.0).

Conclusions The survey developed is positioned to be tested in a multi-site, multi-state and multi-investigator study. If results from this study hold consistent the survey developed can be used in future interventional studies aimed to increase burn prevention knowledge.