

New aggression tool predicted violent patients in medical and surgical wards

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Using a specially designed risk assessment tool was an effective way of identifying violent hospital patients in medical and surgical units, according to a study in the November issue of the *Journal of Advanced Nursing*.

American researchers led by Son Chae Kim, Professor of Nursing at Point Loma Nazarene University and Kristyn Ideker, a Registered Nurse at Scripps Memorial Hospital, San Diego, California, studied more than 2,000 patients admitted to an American acute care hospital over a five-month period.

"Patient violence occurs in all [healthcare settings](#) and, although a number of tools have been developed for use in psychiatric units, there is a lack of brief screening tools for medical and surgical settings" says Professor Kim.

"That is why we developed the ten-point [Aggressive Behaviour Risk Assessment Tool](#) (ABRAT), which was completed within 24 hours of admission and appears to provide a promising tool for predicting which patients will become violent during their hospital stay.

"For example less than one per cent of patients with an ABRAT rating of zero became violent, compared with 41 per cent of those with a rating of two or more.

"Two nurses completed an ABRAT rating for each patient, agreeing in

93 per cent and 96.5 per cent of cases on ABRAT scores with cut off points of one and two respectively."

Key findings of the study included:

- Fifty-six of the 2,063 patients (three per cent) were involved in one or more of the violent incidents. These included 35 episodes of verbal abuse, 26 physical attacks, 15 threats of physical attack, 12 incidents where an emergency call went out to security personnel and three cases of sexual harassment.
- Less than one per cent of the patients with an ABRAT score of zero became violent, compared with eight per cent of the patients with a score of one and 41 per cent of the patients with a score of two or more.
- Half of the violent incidents involved patients aged over 70, despite the fact that they only made up 40 per cent of the patients studied. Males, who made up 48 per cent of the patients studied were almost twice as likely to become violent as females (64 per cent versus 34 per cent).

The researchers quantified the ability of the ABRAT to predict violence in the medical and surgical settings by using the predictive value, where 100 per cent represents a perfect prediction.

- The negative predictive value of an ABRAT score of zero - the proportion of subjects with negative test results who were correctly classified to represent a low risk of violence - was greater than 99 per cent.
- The positive predictive value of an ABRAT score of two or more - the proportion of subjects with positive test results who were correctly classified to represent a high risk of violence - was 41

per cent.

- The five most common predictors of violence were: confusion/cognitive impairment, anxiety, agitation, shouting/demanding and a history of physical aggression.

The ABRAT included a number of items from the M55 tool, previously used in general acute care. It also drew on the STAMP concept, published in the *Journal of Advanced Nursing* in 2007, which covers staring and eye contact, tone and volume of voice, anxiety, mumbling and pacing.

Nurses who had undergone a training course in use of the tool collected the data from patients admitted to six different medical-surgical units.

"The results from this study indicate that the ten-item ABRAT could be useful in identifying potentially violent [patients](#) in medical-surgical units, with acceptable accuracy and agreement between users" says Professor Kim.

"Further studies are now needed to see whether the use of the ABRAT can actually reduce violence in clinical settings."

More information: A confirmatory study of Violence Risk Assessment Tool (M55) and demographic predictors of patient violence. Ideker et al. *Journal of Advanced Nursing*. 67.11, pp2455. (November 2011). doi:10.1111/ j.1365-2648.2011.05667.x

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