Title:
A Multi-Center Study for the Psychometric Testing of the Humpty Dumpty Inpatient Scale

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Session Title:
Patient Safety: Fall Prevention
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References:
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Abstract Summary:

The Humpty Dumpty Falls Prevention Program™ was studied to for six years to examine the reliability, validity, specificity and sensitivity of the Humpty Dumpty Fall Inpatient Scale across multiple pediatric acute care settings around the world.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to discuss the benefits of structured pediatric hospital's fall prevention program to improve patient care outcomes.	Describe Humpty Dumpty Falls Prevention Program™ background and development.
The learner will be able to determine the validity of a pediatric fall inpatient scale.	Demonstrate study design, methods and results contributing to the refinement of the Humpty Dumpty Falls Prevention Program™ inpatient scale.
The learner will be able to describe limitations of a multi-year, multi-facility research study.	Discuss the study's limitations and implications for the advancement of knowledge in the prevention of pediatric falls.

Abstract Text:

According Hill-Rodriguez, et al (2009), the Humpty Dumpty Falls Prevention Program™ was developed out of a need to identify pediatric patients at risk for their potential to have a fall event. An inter-professional team of nursing, risk and rehabilitation specialists came together to review the then current fall risk identification scales and literature. Most of the literature was focused on scales substantiated in the adult population. Due to the limitation of scales and published findings relating to pediatrics, the team developed the comprehensive Humpty Dumpty Falls Prevention Program™. The scales and corresponding program were developed based on commonalities of 200 pediatric fall events and best practices. Consisting of risk identification scales for three settings, high risk fall identification practices,

and educational content to partner with parents, the program began in 2005 and has since become the most globally recognized pediatric fall risk identification program. The program assists care givers in identifying patients at risk for fall events in all 50 states and throughout the world in over a dozen countries, impacting the safety of pediatric patients worldwide.

Because falls can result in serious sequalae for pediatric patients, a six-year multi-site study was embarked upon to examine the reliability, validity, specificity and sensitivity of the Humpty Dumpty Fall Inpatient Scale™. The study period was from 2010-2015. A retrospective, cross sectional design was used to assess the psychometric characteristics of the Humpty Dumpty Fall Inpatient Scale™ for patients who fell and a comparable group of patients who did not fall. Seventeen participating institutions, both national and international, enrolled who are using the Humpty Dumpty Fall Inpatient Scale™.

The purpose of the six-year multisite study was to establish reliability of the Humpty Dumpty Fall Inpatient Scale™, determine the validity of the Humpty Dumpty Fall Inpatient Scale™, analyze the specificity and sensitivity of the Humpty Dumpty Fall Inpatient Scale™, and identify the unique characteristics of individuals classified as true positives (i.e., identified as high risk and experienced a fall) and false negatives (i.e., identified as low risk and experienced a fall). The age range of the population studied was 0-21 years of age.

A retrospective, cross-sectional design was used to assess the psychometric characteristics of the Humpty Dumpty Inpatient Fall Scale™ scores from "actual fall" patients and control patients will be derived from hospital records of patients utilizing the Humpty Dumpty Falls Inpatient Scale™. The "actual fall" sample was identified through medical record numbers via the Risk Management Department. The normal control patients were identified through medical record numbers from the Patient Admissions list for the specified time frame and randomized via computerization. At the time of chart review, all data was de-identified. Humpty Dumpty Fall Inpatient Scale™ scores of all patients who actually fell and a comparable control group who did not fall were reviewed and entered into a password protected online database from 2010 to 2015.

Recruitment consisted of institutions such as hospitals or any other type of institution with an inpatient pediatric unit. These institutions used the Humpty Dumpty Fall Inpatient Scale™ scores of all patients who actually fell and the scores of the normal control group that met inclusion criteria were included; regardless, of the patient race, ethnic group, gender, understanding of country language, or socioeconomic status. Data was collected on the seven domains of the Humpty Dumpty Fall Inpatient Scale™ from the participating institutions.

Findings of the study revealed reliability and validity of the Humpty Dumpty Fall Inpatient Scale ™. Analysis of the individual scale parameters reveal significance in rating criteria for the identification of patients at risk for falls. As a result of the research findings, subsequent research is recommended to further refine the parameters within this inpatient scale.