A review of medical error taxonomies: A human factors perspective

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SAFETY SCIENCE
Volume: 49 Issue: 5 Pages: 607-615
DOI: 10.1016/j.ssc.2010.12.014
Published: JUN 2011
Document Type: Review

Abstract
Although a large number of medical error taxonomies have been published, there is little evidence to suggest that these taxonomies have been systematically compared. This paper describes a study comparing 26 medical error taxonomies using a human factors perspective. The taxonomies were examined to determine if they classified systemic factors of medical errors and if they utilized theoretical error concepts in their classifications. Scope of classification was also examined. It was found that two-thirds of the taxonomies classified systemic factors of medical errors and only a third utilized theoretical error concepts. Medical error taxonomies based on theoretical error concepts were more likely to be generic in applicability and also more likely to classify systemic factors and psychological error mechanisms of medical errors. In addition to terminology, the medical error taxonomies also varied in terms of domain-specificity, granularity, and developmental process. Different medical error taxonomies provide different information; how these differences affect medical error management needs to be investigated. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords
Author Keywords: Medical error; Taxonomy; Human factors; Medical informatics
Keywords Plus: PATIENT SAFETY EVENTS; ADVERSE EVENTS; GENERAL-PRACTICE; INTERNATIONAL CLASSIFICATION; HEALTH-CARE; SYSTEMS; IDENTIFICATION; ERGONOMICS; SURGERY

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Publisher
ELSEVIER SCIENCE BV, PO BOX 211,1000 AE AMSTERDAM, NETHERLANDS

Journal Information
Impact Factor: Journal Citation Reports

Categories / Classification
Research Areas: Engineering; Operations Research & Management Science
Web of Science Categories: Engineering, Industrial; Operations Research & Management Science

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AMERICAN JOURNAL OF CLINICAL PATHOLOGY Volume: 120 Issue: 1 Pages: 18-26 Published: JUL 2003 |
| 2. | Classification of errors contributing to rail incidents and accidents: A comparison of two human error identification techniques | 51 | By: Baysari, Melissa T; Caponecchia, Carlo; McIntosh, Andrew S; et al. 
SAFETY SCIENCE Volume: 47 Issue: 7 Pages: 948-957 Published: AUG 2009 |
| 3. | TERCAP: creating a national database on nursing errors | 19 | By: Benner, P; Malloch, K; Sheets, V; et al. 
Harvard Health Policy Rev Volume: 7 Issue: 1 Pages: 48-63 Published: 2006 |
| 4. | Human factors and ergonomics in health care and patient safety | 14 | By: Carayon, P. 
HDB HUMAN FACTORS ER Pages: 3-20 Published: 2007 |
| 5. | Identification of systems failures in successful paediatric cardiac surgery | 96 | By: Catchpole, K. R.; Giddings, A. E. B.; De Leval, M. R.; et al. 
ERGONOMICS Volume: 49 Issue: 5-6 Pages: 567-588 Published: APR-MAY 2006 |
| 6. | The JCAHO patient safety event taxonomy: a standardized terminology and classification schema for near misses and adverse events | 184 | By: Chang, A; Schyve, P M; Croteau, RJ; et al. 
INTERNATIONAL JOURNAL FOR QUALITY IN HEALTH CARE Volume: 17 Issue: 2 Pages: 95-105 Published: APR 2005 |
| 7. | The incidence and nature of in-hospital adverse events: a systematic review | 607 | By: de Vries, E. N.; Ramwattan, M. A.; Smorenburg, S. M.; et al. 
QUALITY & SAFETY IN HEALTH CARE Volume: 17 Issue: 3 Pages: 216-223 Published: JUN 2008 |
| 8. | A preliminary taxonomy of medical errors in family practice | 185 | By: Dovey, SM; Meyers, DS; Phillips, RL; et al. 
QUALITY & SAFETY IN HEALTH CARE Volume: 11 Issue: 3 Pages: 233-238 Published: SEP 2002 |
ANNALS OF THORACIC SURGERY Volume: 83 Issue: 4 Pages: 1412-1419 Published: APR 2007 |
| 10. | Classification of medical errors and preventable adverse events in primary care: A synthesis of the literature | 98 | By: [other authors] Published: 2008 |