TERCAP®

Taxonomy of Error, Root Cause Analysis and Practice-responsibility

Table 1. Sections of the 2011 TERCAP® Instrument

Section 1: Nurse Characteristics
Section 2: Patient Characteristics
Section 3: System Factors
Section 4: Practice Breakdown
Section 5: Optional Questions

Table 2. Seven Types of System Factors

Communication
Leadership/Management
Backup and Support
Environment
Other Health Team Members
Staffing Issues
Health Care Team

### Table 3. Eight Practice Breakdown Categories:

Safe Medication Administration
Documentation
Attentiveness/Surveillance
Clinical Reasoning
Prevention
Intervention
Interpretation of Authorized Provider's Orders
Professional Responsibility/Patient Advocacy

Overview of the TERCAP® Project

The purpose of the TERCAP® (Taxonomy of Error, Root Cause Analysis and Practice- responsibility) project is to improve nursing practice by systematically analyzing practice errors and their root causes. The TERCAP instrument is designed to collect the practice breakdown data from boards of nursing (BONs) to identify the root causes of nursing practice breakdown from system and individual perspectives. This type of analysis will facilitate the development of strategic interventions to minimize the risk factors that may endanger patient safety.

TERCAP® Instrument Development

The TERCAP instrument was developed by NCSBN committees and external consultants, including Patricia Benner, PhD, RN, FAAN, and Marie Ferrell, PhD, RN, FAAN. The theoretical framework for the development of the TERCAP instrument was based on Benner and colleagues' two seminal papers: "Individual, Practice, and System Causes of Errors in Nursing: A Taxonomy" (*JONA*, 2002) and "TERCAP: Creating a National Database on Nursing Errors" (*Harvard Health Policy Review*, 2006). The TERCAP online survey instrument was first released in February 2007. The third edition of the refined online instrument was released in April 2011. It consists of five sections investigating seven types of system errors and eight practice breakdown categories (Tables 1-3).

Rationale for Revising the TERCAP® Instrument

1. To reduce the workload for NCSBN's member boards by focusing on the most critical safety issues only.
2. To make the questions more specific to capture complicated practice breakdown issues.
3. To establish TERCAP as a national database on nursing practice breakdown.

Features of the Updated 2011 TERCAP® Instrument

1. **Streamlined**;
2. **Shorter;**
3. **Focused;** and
4. **Concise.**

Participating BONs

NCSBN invites all of its member boards to participate in this project. Currently, 23 BONs submit cases to the NCSBN TERCAP database:

- Texas State Board of Nursing;
- North Carolina Board of Nursing;
- Arizona State Board of Nursing;
- North Dakota Board of Nursing;
- Idaho Board of Nursing;
- Minnesota Board of Nursing;
- Kentucky Board of Nursing;
- Oklahoma Board of Nursing;
- Ohio Board of Nursing;
- Alaska Board of Nursing;
- Nevada Board of Nursing;
- New Hampshire Board of Nursing;
- New Jersey Board of Nursing;
- Maine State Board of Nursing;
- Mississippi Board of Nursing;
- Virginia Board of Nursing;
- New Mexico Board of Nursing;
- West Virginia Board of Examiners for Registered Professional Nurses;
- Louisiana State Board of Practical Nurse Examiners;
- West Virginia State Board of Examiners for Licensed Practical Nurses;
- Arkansas Board of Nursing;
- New York State Board of Nursing; and
- Washington State Nursing Care Quality Assurance Commission.
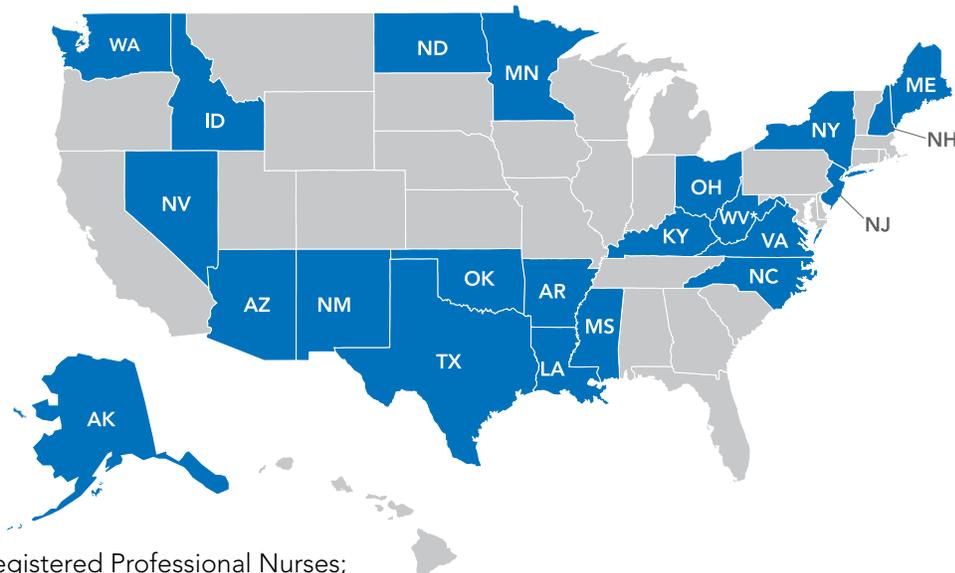
Based on 861 TERCAP cases, NCSBN conducted the first round of analysis and found the following:

- Overall, 72 percent of the cases were unintentional human errors. Among the nurses who were reported to BONs for committing practice breakdown, 60 percent were registered nurses (RNs), 37 percent were licensed practical/vocational nurses (LPNs/VNs), one percent were advanced practice registered nurses (APRNs) and three percent held either RN and LPN/VN or RN and APRN licenses.
- There is a significant association between the nurses' employment history (discipline and termination by employers) and practice breakdown. Among the 725 nurses with complete employment history (previous discipline and termination by their employers), 60 percent had been disciplined and/or terminated by their employer(s) previously.
- Furthermore, the data indicated that 55 percent of practice breakdowns occurred when a nurse worked in a patient care position for two years or less, but 73 percent of these nurses had been licensed for two years or longer.
- The current data did not reveal sufficient association between system factors and any types of practice breakdown.

Testimonials

"When I started in my new position at the Idaho Board of Nursing, I wasn't sure how to approach a complaint against a nurse… I wanted to be sure I covered all the aspects of an investigation so that the board could make informed decisions. I thought to myself, isn't there a document or some sort of checklist of questions that could guide a uniform approach? Fortunately, my executive officer had tapped into a resource before I came to the board: TERCAP. Reviewing some of the older documents produced by NCSBN, I learned a bit about the history and development of this data collection instrument. I discovered there were processes in place to not only comprehensively gather the information, but there was an opportunity to submit the data online. Thus, I can view the data that I submit for my board and have a more uniform method for investigations while NCSBN can conduct data analysis in the aggregate on all the data submitted."

Jan Edmonds, MSN, RN, Director for Professional Compliance, Idaho Board of Nursing

"Having worked with TERCAP since its inception, I have seen this project evolve from a research project to what is now — a significant and essential component of the North Dakota Board of Nursing investigative process. The interview process, including investigative techniques and interview questions, has been streamlined to better capture nurse, team and system issues. The national research data obtained from TERCAP will lead the future of nursing regulation as it relates to error and practice breakdown."

Karla Bitz, PhD, RN, FRE, Associate Director, North Dakota Board of Nursing

"We find that integrating TERCAP as part of the investigation, for nurse and non-nurse investigators alike, provides increased awareness of circumstantial factors that might have been beyond the nurse's control. TERCAP contributes consistency in the identification and review of these factors in cases. We now have every investigator beginning each case by starting the TERCAP process, and we have even developed our own inter-rater reliability process so that everyone understands the questions and answer choices from which to select. Although I was skeptical at first and thought there were too many questions, we have found that it does not take as much time as we thought it would. Plus, the quality of our investigations has improved across the board through using TERCAP."

J.L. Skylar Caddell, RN-BC, Lead Investigator, Texas Board of Nursing

"As a new executive officer for an NCSBN member board, I had the goal of meeting with nurse executives around the state to establish a collaborative working relationship. TERCAP was one of the projects shared with those executives. It gave us an opportunity to work together in defining how best the board and health care facilities could collaborate to report and address practice breakdown. The idea was well received and has forged a new partnership between the board and the facilities that provide nursing care across Kentucky."

Charlotte Beason, EdD, RN, NEA, Executive Director, Kentucky Board of Nursing

TERCAP® Resources
NCSBN offers a variety of resources to participating member boards and BONs who are interested in learning more about TERCAP.

Toolkit
The toolkit developed by the TERCAP® Committee includes:
- TERCAP protocol and instrument;
- PowerPoint presentation for education purposes;
- Training file with case studies;
- Reference file;
- Flow chart for helping analyze cases;
- Q&A; and
- TERCAP policies.

User Calls
Bimonthly TERCAP users calls are conducted to assist current users with any TERCAP related questions and to share strategies on successful implementation. This provides a forum for dialogue with new and experienced TERCAP users.

TERCAP® Wiki (http://wiki.ncsbn.org/Knowledge_Networks/TERCAP)
The TERCAP communication and knowledge network is available for the staff of member boards who are working with the TERCAP and for those who are interested in learning more about TERCAP.
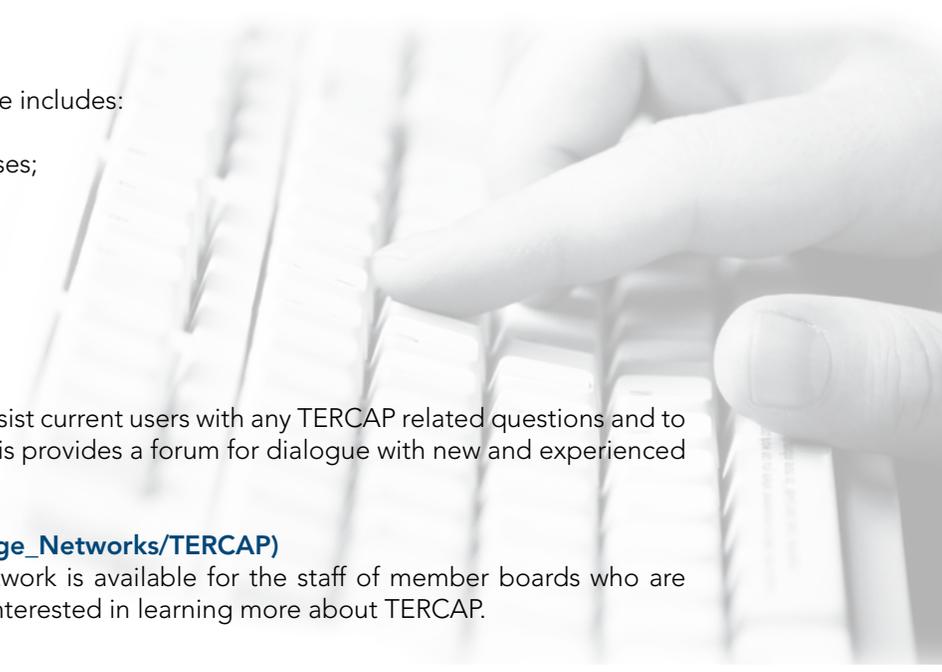
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