



Momentary fitting in a fluid environment: A grounded theory of triage nurse decision making



Gudrun Reay RN, PhD (Assistant Professor) *, James A. Rankin RN, NP, PhD (Professor, Nurse Practitioner), Karen L. Then RN, NP, CCN(C), PhD (Professor, Nurse Practitioner)

Faculty of Nursing, University of Calgary, 2500 University Drive NW, Calgary, AB, Canada T2N 1N4

ARTICLE INFO

Article history:

Received 27 May 2015

Received in revised form 5 September 2015

Accepted 30 September 2015

Keywords:

Triage
Decision making
Grounded theory
Situation awareness
Emergency nursing
Distributed cognition
Software design
Fluid environment

ABSTRACT

Background: Triage nurses control access to the Emergency Department (ED) and make decisions about patient acuity, patient priority, and placement of the patient in the ED. Understanding the processes and strategies that triage nurses use to make decisions is therefore vital for patient safety and the operation of the ED. The aim of the current study was to generate a substantive grounded theory (GT) of decision making by emergency triage Registered Nurses (RNs).

Method: Data collection consisted of seven observations of the triage environment at three tertiary care hospitals where RNs conducted triage and twelve interviews with triage RNs. The data were analyzed by constant comparison in accordance with the classical GT method.

Results: In the resultant theory, *Momentary Fitting in a Fluid Environment*, triage is conceptualized as a process consisting of four categories, determining acuity, anticipating needs, managing space, and creating space. The findings indicate that triage RNs continually strive to achieve fit, while simultaneously considering the individual patient and the ED as a whole entity.

Conclusion: Triage RNs require appropriately designed triage environments and computer technology that enable them to secure real time knowledge of the ED to maintain situation awareness.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

Hospital emergency triage is commonly practiced by professional Registered Nurses (RNs). The triage nurse regulates access to emergency care with the responsibility for ongoing decision making regarding patient acuity, prioritization for examination by a physician, and allocation of treatment space (Edwards and Sines, 2008; Fry and Stainton, 2005; Hodge et al., 2013). Patient safety is dependent on the ability of the triage nurse to make safe, accurate decisions in a timely fashion (Göransson et al., 2008; Hodge et al., 2013; Vatnøy et al., 2013).

Hospital EDs developed triage systems in the 1970s and 1980s (Fry and Burr, 2002). The emergence of triage acuity scales contributed to a standardized approach, however the authors suggest that triage scales limit the understanding of the multi-dimensional nature of triage decisions. Moreover, a triage scale provides no indication of what constitutes “the right” triage decision. FitzGerald et al. (2010) suggested that it is difficult to define a correct triage

decision due to the complex interaction of personal, emotional, social, and contextual factors that occur during the triage assessment.

Triage decisions are multifaceted and need to be understood from a broader perspective than whether they are in accordance with a particular ordinal level acuity scale. The authors do not dispute the importance of triage scales, however, it is important to acknowledge that triage acuity scores are not always accurate (Atzema et al., 2009; Considine et al., 2001; Göransson et al., 2006).

Several authors have argued that an effective triage system is essential for the safety of patients, for managing patient flow, and the appropriate use of resources (FitzGerald et al., 2010; Hodge et al., 2013; Vatnøy et al., 2013). Studies have been conducted on how triage RNs make decisions, unfortunately there is a paucity of studies on how these decisions are enacted beyond assigning acuity scores. In addition, triage and decision making research has largely been conducted from the perspective of the decision residing with the individual RN (Considine et al., 2001; Gertz et al., 2009; Göransson et al., 2008). Only a few authors have referred to the collaborative aspect of triage, either between triage RNs, or with RNs and the charge RN (Patel et al., 2008; Wolf, 2010).

Given the role of ED triage RNs in controlling access to care an understanding of the processes they use when making triage decisions is an essential component in increasing patient safety. Triage decisions are situated in a particular social context and need to be

* Corresponding author. Faculty of Nursing, University of Calgary, 2500 University Drive NW, Calgary, AB, Canada T2N 1N4. Tel.: +1 403 210 3843; fax: +1 403 284 4803.
E-mail address: gudrun.reay2@ucalgary.ca (G. Reay).

understood, not as isolated entities based solely on a scale, rather as a dynamic process resulting from interactions among the decision maker, the patient, contextual factors, and institutional requirements.

The purpose of this grounded theory (GT) study was to:

- (a) develop an understanding of the processes that RNs use when making triage decisions;
- (b) generate a substantive GT of triage RN decision making.

The research question that guided the study was:

What are the processes and strategies that experienced triage RNs use when making triage decisions?

2. Method

2.1. Design

The study was conducted using classical GT (Glaser, 1978, 1998; Glaser and Strauss, 1967), a primarily inductive research method. The aim is to discover what is occurring in a particular social context and how individuals solve what they perceive as being “the problematic” – the main concern of participants (Glaser, 1978).

2.2. Setting

The study was conducted at three adult tertiary care hospitals in a large urban center in Western Canada. Each ED had a dedicated triage area with two to three ED staff RNs assigned to triage. In 2013 the total number of ED visits to all hospitals was 241,845.

The RN triage assessments lasted three to five minutes including vital signs and a complaint specific assessment. The RNs entered a triage note into a computer and then determined an acuity score according to the Canadian Triage and Acuity Scale (CTAS). In addition, the RNs assigned the patients a priority number to be assessed by a physician. New software was implemented by the hospital administration after the study commenced. The intent of the study had not been to study the effects of new technology. The RNs did, however, express frustration with the design of the interface and the triage process taking longer.

Patients arrived in the ED either as “walk-ins” or by ambulance. Ambulance patients were triaged directly to a treatment space, or if no ED space was available, paramedics remained with the patient in a hallway.

Options for treatment spaces were the resuscitation room, stretchers with and without cardiac monitors, and mental health assessment rooms. Each site had a fast track for patients with minor injuries, such as lacerations, and an area for ambulatory patients who could be treated in a reclining chair, for example patients with flank pain. For the majority of the observations triage RNs were grappling with finding suitable treatment spaces for complicated patients.

2.3. Ethical approval

Ethical approval was obtained from the University of Calgary Conjoint Health Research Ethics Board (ID: E-25197). Participants agreed to be interviewed or observed by signing a written consent, and each created an alias for confidentiality.

2.4. Participants and recruitment

RNs were recruited for interviews by an emailed letter of invitation and a poster was displayed in each ED. Staff RNs with ≥ 5 years triage experience were selected for their rich and varied experiences. Theoretical sampling was used until saturation was reached.

The final sample for interviews consisted of 12 RNs with emergency triage experience from 5 to 38 years.

2.5. Data collection

Data collection was conducted from April 2013 to February 2014. Seven observations lasting 4 hours each were conducted by GR who observed RNs as they conducted triage. Three RNs were triaging simultaneously, therefore more RNs ($n = 26$) were actually observed at triage than were interviewed ($n = 12$). Observations occurred in the afternoon, when the volume of incoming patients was typically high. Each observation included numerous RN–patient encounters. Triage RNs were observed as they assessed walk-in and ambulance patients, made decisions about patient acuity and priority, and worked to find appropriate treatment spaces. In addition, observations included listening to conversations among paramedics, triage RNs, and the charge RN. Researcher field notes were transcribed and coded after each observation.

Participants were interviewed for 45–60 minutes when they were off duty in a private setting away from the hospital. Interviewees were not necessarily the same RNs who were observed. Initial interviews were unstructured with mainly passive listening (Glaser, 2002) and included open-ended questions. Later, during theoretical sampling, focused questions were used to collect data for emerging categories. Each interview was digitally recorded, transcribed, and coded immediately after it was conducted.

2.6. Data analysis

Data analysis was conducted using the constant comparative method (Glaser, 1978, 1998; Glaser and Strauss, 1967); therefore, interviews, observations, coding, memoing, and data analysis occurred simultaneously. Emerging concepts guided further data collection. Open coding was conducted by coding each interview and observation line by line. During the coding process incidents were collapsed into properties and those properties that indicated the same category were grouped together. Selective coding was employed as a core category and theoretical framework began to emerge. The participants’ main concern, the core category, was conceptualized as the theory *Momentary Fitting in a Fluid Environment*.

2.7. Rigor/Trustworthiness

Morse et al. (2002) suggested that rigor/trustworthiness is an ongoing process throughout the research project, not simply a set of criteria applied at the end. Glaser (2003) emphasized the necessity of *procedural credibility* meaning how closely the researcher adheres to the GT method. Rigor was ensured by adhering to the constant comparative method of simultaneous data collection, coding, and analysis continually asking “is this what the data is telling us?” (Glaser, 1978). Grounded theories are evaluated by the criteria fit, work, relevance, and modifiability (Glaser, 1978, 1998). GR wrote extensive memos exploring the fit with the emergent categories and data. In essence, the theory works and is relevant because it explains how the main concern is continually resolved by the participants.

3. Results

3.1. The theory of momentary fitting in a fluid environment

EDs are dynamic environments where conditions change moment to moment. Triage RNs strive to achieve fit by matching the patient to the resources needed within an acceptable timeframe relative to other patients whom are waiting, simultaneously maintaining awareness of how the ED fits together as a system and how each

Download English Version:

<https://daneshyari.com/en/article/2609183>

Download Persian Version:

<https://daneshyari.com/article/2609183>

[Daneshyari.com](https://daneshyari.com)