Examining the linguistic needs of internationally educated nurses: A corpus-based study of lexico-grammatical features in nurse–patient interactions

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ABSTRACT

Within English for Medical Purposes (EMP), one area of concern is to develop programs for international medical graduates (IMGs) working in the U.S. (Hoekje & Tipton, 2011). Along with IMGs, internationally educated nurses (IENs) are an increasingly important part of the U.S. workforce (Davis & Nichols, 2002). While communication difficulties for IENs are well documented (Davis & Nichols, 2002; Xu, 2007), few previous studies have investigated the discourse of IENs' interactions with patients. In order to inform IEN training programs, it is important to determine linguistic characteristics that distinguish IEN speech from that of U.S. nurses (USNs), native English speaking nurses born and trained in the U.S. To investigate differences between the two groups, a corpus of 102 nurse–patient interactions (52 IENs and 50 USNs) was collected and analyzed for lexico-grammatical features. Results show that USNs used particular lexico-grammatical features more frequently, including past tense and various stance features (e.g., certainty adverbs such as *maybe* and *kind of*), all of which play an important role in creating rapport with patients and providing more patient-centered interactions. The findings have implications for IEN training programs, as well as EMP courses for nursing students and other medical professionals.

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1. Introduction

The subfield of English for Medical Purposes (EMP) is of growing interest to ESP professionals. Within EMP, one concern is developing programs for international medical graduates (IMGs) working in the United States (Hoekje & Tipton, 2011). Along with IMGs, internationally educated nurses (IENs) are an increasingly important part of the U.S. workforce (Xu, Gutierrez, & Kim, 2008). However, as with IMGs, communication difficulties for IENs whose first language is not English are well documented (Davis & Nichols, 2002; Kawi & Xu, 2009; Xu, 2007; Xu, Zaikina-Montgomery, & Shen, 2010). These difficulties negatively impact the transition and adaptation of IENs and, potentially, patient safety and quality of care (Xu, 2007).

One area of need highlighted by nursing researchers is IENs' communication with patients (Davis & Nichols, 2002; Kawi & Xu, 2009; Xu, 2007; Xu, Shen, Bolstad, Covelli, & Torpey, 2010; Xu, Zaikina-Montgomery, et al., 2010). EMP needs analyses of the nursing context have identified key speech tasks in nurse–patient communication, such as expressing empathy, developing rapport, reflective listening, and reassuring patients (Bosher & Smalkoski, 2002; Cameron, 1998; Hussin, 2008). At the

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heart of this issue is the need for nurses working in the U.S. context and elsewhere to master the sociopragmatic and pragmalinguistic aspects of patient-centered care and 'therapeutic communication,' now generally recognized as an essential component of effective healthcare (see e.g., Ong, de Haes, Hoos, & Lammes, 1995; Stein-Parbury, 2009; Stewart, 1995).

Numerous studies of provider–patient discourse have also identified extended functions within interactions, such as openings and closings, which provide an important framework for understanding medical interactions (e.g., Heritage & Maynard, 2006). While some previous research has also identified lexico-grammatical features that are especially important in this domain (see, e.g., Adolphs, Brown, Carter, Crawford, & Sahota, 2004; Malthus, Holmes, & Major, 2005; Skelton & Hobbs, 1999a, 1999b), there are no comprehensive quantitative analyses of lexico-grammatical features used by nurses in their interactions with patients. In addition, while ESP research in other areas has included comparisons of native and non-native speaker discourse (see Connor & Rozycki, 2013), this type of comparison is extremely limited within the field of EMP. Thus, it is unclear how IEN discourse differs from that of U.S. nurses (USNs) – nurses whose first language is English and who were born and received basic nursing training in the United States.

This study aims to identify differences in the lexico-grammatical features used by IENs and USNs in their interactions with patients in order to better inform the training of IENs, other international nurses (nurses whose first language is not English but who are being educated in an English-speaking country), and other internationally educated medical professionals. Similar to genre-based studies in written ESP research that employ move analysis (Swales, 1990), the methodology for this study draws on important findings on discourse-level functions within medical interactions (e.g., openings). These functional *phases* form the unit of analysis. The main focus of investigation is then a comparison of the lexico-grammatical features used by IENs and USNs in each of the phases. Implications for IEN training programs as well as other EMP settings will be discussed.

2. Background

2.1. IENs in the United States

According to the 2008 National Sample Survey of Registered Nurses, IENs comprise 5.6 percent of the RN workforce (HRSA, 2010, p. 81). As Xu (2010) reports, however, the proportion of IENs varies widely across the United States; for example, in California the IEN population comprises 29% of the nursing workforce (p. 62). Filipino nurses represent the largest number of IENs (52%), followed by nurses from Canada (12%) and India (9%) (HRSA, 2010, p. 82). Davis and Nichols (2002) reported that most IENs identified their medium of instruction as English; however, these same IENs did not consider English as their first language (p. 47). It is not known whether the same demographics exist in the current IEN population, or at what level English became the medium of instruction for these nurses. In addition, there likely is wide variation in the language of instruction for nurses in India (WES, 2006). Although the requirements for IENs vary somewhat by state, all are required to pass the U.S. nurse licensing exam (NCLEX) and receive approval for their overseas nursing education from a state board of nursing. Language proficiency requirements are fulfilled through the TOEFL or IELTS examinations (Xu, 2010). Score requirements vary by state; Nevada, where the current study took place, requires a minimum of 26/30 on the spoken subsection of the TOEFL iBT.

The primary areas that seem to affect IENs' transition into the U.S. workforce are communication issues, differences in nursing practices and nursing roles, and cultural differences (Xu, 2007). While no studies investigating the discourse of IENs could be found, a number of studies have examined the communication needs of nurses in training whose first language is not English (see, e.g., Cameron, 1998; Crawford & Candlin, 2013a, 2013b; Hussin, 2008). In their needs analysis for nursing students from culturally and linguistically diverse backgrounds, Crawford and Candlin (2013a) identified the importance of focusing on language used during assessment as well as practicing 'therapeutic communication.' Therapeutic communication in nursing, or a process approach to nursing, emphasizes patients' psychological needs as much as their physical needs, and the development of a healing relationship with patients (see Antai-Otong, 2007, p. 9; Candlin, 2000, p. 231). Aspects of therapeutic communication include building rapport, trust and empathy, responding to the patient's anxiety and stress, understanding the patient's experiences, and formulating patient-centered interventions (Antai-Otong, 2007).

In addition, a few studies identify differences in nursing training across countries, including those relevant to therapeutic communication (e.g., little psychiatric/mental health training and a lack of focus on patient-centered care) (Lin, 2013; Xu, 2010). When discussed, cultural differences for IENs are often framed in terms of individualistic versus collectivist models of culture (Xu, 2007). Since the discourse of IENs has not been investigated, it is unclear how differences in national and nursing cultures impact the linguistic features within IENs' interactions with patients.

2.2. Phases of nurse–patient interactions

Genre analysis, a key research method in ESP, often focuses on the discourse-level moves taken by effective writers (and to a lesser extent, speakers) in a particular ESP setting (see, e.g., Stoller & Robinson, 2013). Similarly, this study looks at major discourse functions within nurse–patient interactions, building on extensive research by discourse analysts in health care communication.

The unit of analysis for this study, the phase of the interaction, has long been explored in doctor–patient interaction (Ainsworth-Vaughn, 2005). Starting with Byrne and Long (1976), researchers have noted that doctor–patient interactions generally include opening, complaint (expression of chief concern), examination (history taking and/or physical exam), diagnosis, treatment, and closing (Byrne & Long, 1976; ten Have, 1989; Heritage & Maynard, 2006). Debra Roter's Roter