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# English Language Proficiency as a Critical Factor in Patient Safety: Challenges for Non-Native Medical Staff

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## ABSTRACT

**Background:** In modern healthcare environments, where medical teams are often multinational and diverse, English has emerged as the global language of communication. For non-native English-speaking healthcare professionals, limited language proficiency poses significant challenges that can directly impact patient safety. In countries like Saudi Arabia, where a substantial proportion of medical staff are expatriates, communication breakdowns due to inadequate English skills are a growing concern.

**Objective:** This study aimed to evaluate the link between English language proficiency and the frequency and severity of communication-related errors in patient care.

**Method:** This study adopts a mixed-methods approach, incorporating surveys, structured interviews, and direct observation across multiple Saudi medical institutions. Participants included nurses, resident doctors, and allied health professionals from diverse linguistic backgrounds.

**Conclusion:** Findings indicated that insufficient English language proficiency is a key contributing factor to misdiagnoses, medication errors, and delays in treatment. The study highlighted the urgent need for institutional policies that enforce language standards and provide targeted English as a Second Language (ESL) training. Enhancing English communication skills is not only a matter of professional competence but a crucial component of patient safety.

**Keywords:** Patient safety, English proficiency, Healthcare communication, Non-native medical staff, ESL training, Saudi Arabia, Medical errors.

## INTRODUCTION

Effective communication is the cornerstone of safe and high-quality healthcare delivery, particularly in multilingual healthcare environments where English serves as the common medium of interaction [1,2]. In clinical environments, where precision, clarity, and timeliness are critical, language proficiency becomes a decisive factor in ensuring patient safety. With English serving as the dominant medium of communication in global healthcare systems, particularly in countries with multinational workforces such as Saudi Arabia, the ability of medical professionals to communicate fluently and accurately in English is essential [3].

Saudi Arabia's healthcare sector is characterized by a diverse and multilingual workforce, largely composed of expatriates from non-English-speaking countries. While this diversity enriches the healthcare environment, it also introduces complex linguistic challenges. Many healthcare professionals, including nurses, physicians, and support staff, possess only functional or limited English proficiency, which can hinder effective communication with colleagues, patients, and families [4]. Such language limitations are not merely inconvenient—they can be life-threatening.

Studies have increasingly linked language barriers to clinical errors, misdiagnoses, compromised patient consent, and delayed treatments [5,6]. In high-stakes situations such as emergency interventions or surgical procedures, even a minor misunderstanding can escalate into serious harm. Furthermore, patients who cannot clearly communicate symptoms or understand their treatment plans are more likely to experience dissatisfaction and adverse outcomes [7,8].

Despite the growing awareness of these risks, there is a noticeable gap in institutional strategies and national policy initiatives aimed at improving English language communication among healthcare staff [9]. English language proficiency is often assumed or informally assessed, leaving room for preventable communication failures. Given the high demand for competent and culturally sensitive care, there is an urgent need to examine the relationship between English language skills and patient safety outcomes in Saudi Arabia's medical institutions.

This study aims to explore the challenges faced by non-native English-speaking medical staff in delivering safe and effective care due to language limitations. It also seeks to propose practical recommendations for language training and policy development that can support safer healthcare communication.

## LITERATURE REVIEW

### Global evidence linking language barriers to patient safety

More than two decades of scholarship show a consistent association between limited English proficiency (LEP) and adverse clinical outcomes. A systematic review of 47 studies found that LEP patients



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experienced significantly higher rates of medication complications, reduced comprehension of diagnoses, and lower overall satisfaction with care [5,10].

Recent analyses continue to corroborate these trends: a 2023 review of hospital records in two U.S. academic centers reported that patients with LEP had a 31% higher risk of experiencing a serious adverse event compared to English-proficient patients [11].

**Interpreter services and institutional language supports**

Interpreter programs are the most widely studied intervention, with multiple reviews concluding that professional language assistance both improves patient satisfaction and reduces medical errors and readmissions [6,7].

Evidence from high-income countries shows that hospitals combining certified interpreters with bilingual signage and translated consent forms achieve measurable reductions in documentation errors and treatment delays (12). However, budget constraints and policy shifts have led to service cutbacks, prompting renewed concern that progress may stall or reverse [13].

**Challenges in the Gulf and Saudi Arabia**

The Saudi healthcare workforce is uniquely multilingual; expatriates constitute more than 60% of nursing staff and over 40% of physicians in tertiary facilities. Studies conducted in Riyadh, Jeddah, and Makkah consistently rank "different languages" among the top barriers to a positive patient-safety culture [3,14].

One survey of Saudi in-patients reported that 25% struggled to communicate with clinicians, while 20% of clinicians believed language barriers "always" affected clinical outcomes [4]. Despite these data, systematic audits linking individual clinicians' English proficiency scores to error rates remain scarce.

**Training and policy interventions**

Hospital-level initiatives range from compulsory ESL workshops to simulation-based handover drills. A Joint Commission review identified comprehensive, longitudinal training—rather than single short courses—as the most effective means of sustaining communication gains [15].

In Saudi Arabia, pilot programs pairing ESL instruction with scenario-based practice have improved nurses' clarity during medication administration and discharge counseling, but results are largely unpublished [9].

**Gaps in the current literature**

1. **Quantitative links between staff proficiency and specific error types** remain under-documented in the Gulf region.
2. **Longitudinal evaluations** of ESL interventions are limited; few studies track whether language gains translate into sustained safety improvements beyond six months.
3. **Policy analyses** seldom incorporate economic modelling, leaving healthcare leaders without cost–benefit data to justify large-scale language programs.
4. **Patient perspectives** on how language barriers influence trust, consent, and adherence are under-represented, particularly among Saudi nationals treated by expatriate clinicians [8,10].

Collectively, the literature underscored a pressing need for mixed-methods research that quantifies the safety impact of English proficiency while capturing the lived experiences of both patients and staff. The present study addressed these gaps in the Saudi context, laying a foundation for evidence-based policy and training reforms.

**THEORETICAL FRAMEWORK**

To examine the link between English language proficiency and patient safety among non-native medical staff, this study was grounded in three interrelated theoretical frameworks: **Krashen's Input Hypothesis**, **Hymes' Communicative Competence Theory**, and **Risk Communication Theory**. These models collectively support the argument that language proficiency is not only a linguistic issue but also a cognitive, social, and safety-critical factor in healthcare.

**Krashen's input hypothesis**

Stephen **Krashen's [16]** Input Hypothesis emphasizes that language acquisition occurs most effectively when learners are exposed to language input that is slightly beyond their current level of competence (i+1). In a healthcare context, medical staff who lack exposure to workplace-relevant English (e.g., clinical instructions, medical terminology, and patient dialogues) may stagnate in their language development. When clinicians do not receive comprehensible and context-appropriate input, their ability to understand instructions, document accurately, or communicate with patients is compromised. This lack of proficiency can lead to clinical errors, miscommunication, and reduced efficiency in medical teams [17].

**Hymes' communicative competence theory: Dell Hymes [18]** introduced the concept of communicative competence to highlight that effective communication requires more than grammatical knowledge; it involves sociolinguistic and strategic abilities as well. In the clinical setting, healthcare providers must know what to say, how to say it, and when and to whom to say it. This involves understanding medical jargon, patient sensitivities, professional etiquette, and cultural nuances

[19]. Non-native speakers who lack communicative competence may fail to deliver bad news appropriately, misinterpret patient concerns, or misuse critical expressions during emergencies—all of which can have serious implications for patient safety [20].

**Risk communication theory:** Risk Communication Theory, widely used in public health and crisis management, focuses on how information about risk is conveyed between parties, particularly under time constraints or stressful conditions [21]. In medical practice, much of the communication is risk-laden—explaining a procedure, informing about side effects, or securing informed consent. Limited collect English proficiency impairs this communication, leading to misunderstanding or failure to act appropriately. According to this theory, effective risk communication must be clear, timely, and culturally sensitive—requirements that are often unmet when ESL barriers exist [22].

**Summary:** Together, these frameworks highlight that English proficiency in healthcare is not a superficial skill but a foundational competency that influences comprehension, interaction, and decision-making. A deficit in this area does not merely affect job performance; it endangers patient lives. These theories guide the present study in examining both the linguistic and practical dimensions of language-related safety risks in Saudi medical institutions.

## METHODOLOGY

This study employed a **mixed-methods approach** to comprehensively explore how English language proficiency among non-native medical staff impacts patient safety in Saudi healthcare settings. Mixed-methods research integrates both quantitative and qualitative data to produce a richer and more nuanced understanding of complex issues [23].

### Participants

Participants included 120 healthcare professionals from three major hospitals in Riyadh, Jeddah, and Dammam. The sample comprised nurses (55%), resident doctors (30%), and allied health professionals (15%), all of whom were non-native English speakers. Participants represented over 10 nationalities, with the majority from the Philippines, India, Egypt, and Pakistan. Inclusion criteria required at least one year of clinical experience in Saudi Arabia and active patient-facing roles [4].

### Instruments

**English language proficiency assessment** – A customized, workplace-specific test adapted from the **Occupational English Test (OET)** evaluated listening, reading, and speaking skills related to healthcare communication [24].

**Patient Safety Incident Survey** – Based on the **WHO's Patient Safety Curriculum Guide**, this tool gathered self-reported data on communication-related errors, near misses, and misunderstandings [2].

**Interview protocol** – Semi-structured interviews explored personal experiences with communication challenges, strategies used to overcome them, and perceived effects on patient care [25].

**Observation Checklist** – A trained observer used a structured checklist during ward rounds and handovers to identify language-related disruptions, hesitations, or errors [26].

### Procedure

The study was conducted over a three-month period. Initial recruitment was coordinated through hospital administrators, and informed consent was obtained from all participants in accordance with international research ethics guidelines [27].

Participants completed the English proficiency test and the patient safety survey electronically. Interviews were then scheduled with a subset of 30 volunteers from the larger sample, selected for diverse roles and language backgrounds. Observational data were collected across 12 ward rounds and 10 nursing handovers, focusing on real-time communication practices [28].

### Data Analysis

Quantitative data from the proficiency test and survey responses were analyzed using **SPSS** version 28, with Pearson correlation coefficients used to examine the relationship between English proficiency scores and frequency of reported safety incidents [29].

Qualitative data from interviews and observations were coded using thematic analysis, guided by Braun and Clarke's [28] six-phase framework. Emergent themes were triangulated with survey findings to enhance validity [30].

### Ethical Considerations

This study did not involve patients or access to identifiable personal health information. The participating healthcare professionals provided information voluntarily and were informed about the purpose of the research. All responses were anonymized before analysis to ensure confidentiality. No sensitive personal data were collected, and no interventions were performed.

According to the institutional and national guidelines applicable at the time of the study, this type of research — involving anonymized, non-clinical, professional perspectives — did not require formal ethics committee or Institutional Review Board (IRB) approval.

## RESULTS

This section presents the findings of the study, integrating data from English proficiency assessments, patient safety incident surveys, real-time observations, and in-depth interviews. The results are grouped into three categories: **quantitative findings**, **observational insights**, and **thematic analysis of interviews**.

**Quantitative findings:** Analysis of the English proficiency assessments revealed the following:

- **Average English proficiency score** across all participants was 63%, with nurses scoring slightly lower (60%) than doctors (68%).
- **72%** of participants self-reported experiencing at least one communication-related clinical error in the past six months.
- A **moderate negative correlation** *($r = –0.46$, $p < 0.01$)* was found between English proficiency scores and the number of reported safety incidents—indicating that lower language proficiency was associated with a higher frequency of errors.
- The most common communication-related incidents reported were:
    - Misinterpretation of medication instructions (34%).
    - Inaccurate or delayed handovers (29%).
    - Difficulty explaining procedures to patients (21%).
- Participants with higher proficiency scores (above 75%) reported significantly fewer incidents and higher confidence levels in clinical communication tasks [7].

### Observational Insights

Observations conducted during ward rounds and nursing handovers revealed several recurring communication breakdowns, echoing prior research [6, 12]:

- In 40% of observed handovers, nurses hesitated or repeated instructions due to uncertainty in phrasing.
- Doctors frequently resorted to simplified language or non-verbal gestures to explain instructions to non-native staff.
- Three incidents were noted where inaccurate communication delayed patient treatment decisions by over 30 minutes.
- Code-switching between native languages and English was common, particularly when staff felt unsure about terminology, which led to inconsistencies in charting and verbal handovers.

Overall, communication was noticeably smoother in units where staff had previously undergone structured ESL or communication training.

### Interview Themes

Interviews with 30 participants yielded rich insights into the lived experience of language challenges in clinical environments, consistent with findings from other Gulf-region studies [3, 8]. Four major themes emerged:

1. **Fear of miscommunication:** Many participants expressed anxiety about miscommunicating critical information, particularly in emergencies. One nurse stated, “I sometimes feel panic when I don’t know the right medical word. I’m afraid I might say something dangerous.”
2. **Reliance on peer support:** Staff frequently turned to colleagues for help during language difficulties. This informal support network, while helpful, was inconsistent and could cause delays.
3. **Patient misunderstanding:** Several participants reported struggling to obtain informed consent from patients or explain post-operative care due to limited vocabulary or pronunciation issues.
4. **Desire for language training**: Nearly all participants voiced a strong interest in attending regular, job-specific English training. Many criticized generic ESL programs for being too broad and not tailored to medical contexts

## DISCUSSION

This section interprets the study’s findings in light of the theoretical frameworks and relevant literature, explores implications for healthcare institutions, and offers practical recommendations for policy and practice.

### Theoretical Integration

The findings strongly align with **Krashen’s Input Hypothesis** [16], highlighting that many non-native medical staff are not receiving sufficient comprehensible input in English to develop and maintain the language skills required for clinical accuracy. The frequent use of code-switching, reliance on simplified speech, and hesitation during communication confirm that the current environment lacks the linguistic scaffolding necessary for language acquisition and professional competence [17].

**Hymes’ Communicative Competence Theory** [18] is particularly relevant, as many participants demonstrated adequate grammatical knowledge but struggled with sociolinguistic and strategic aspects of communication [19]. The difficulty in delivering patient instructions, participating in interdisciplinary discussions, or negotiating consent reflects deficits in pragmatic language use—not just vocabulary or syntax [20].

The **Risk Communication Theory** [21] is supported by the high frequency of misunderstandings during handovers and emergency care. Participants’ testimonies about

patient confusion, treatment delays, and fear of miscommunication underscore how language limitations directly threaten the clarity and effectiveness of risk-laden communication [22].

**Implications**

The findings have serious implications for:

- **Healthcare safety** – Communication errors can contribute directly to adverse events, delayed interventions, and patient dissatisfaction [5,6].
- **Workforce development** – Institutions relying on expatriate staff must prioritize language competency as part of clinical readiness, not an optional add-on [9].
- **Professional confidence** – Language difficulties undermine self-efficacy, reduce morale, and increase cognitive load among already overburdened healthcare staff [8].
- **Patient rights and equity** – Inadequate language skills compromise patients' ability to understand their treatment, give informed consent, and participate in their own care [2,7].

**Practical Recommendations**

Based on these implications, several actionable recommendations emerge:

1. **Mandatory English Language Screening** – All new hires should undergo standardized English assessments tailored to healthcare contexts, such as OET-based tools [24].
2. **Ongoing, Specialized ESL Training** – Institutions should implement recurring training targeting clinical vocabulary, pronunciation, and interactive skills such as handovers and patient education [3].
3. **Simulation-Based Communication Drills** – Language learning should be reinforced with clinical scenarios to build confidence and improve language use under pressure [12].
4. **Language Mentorship Programs** – Senior bilingual staff can mentor less proficient colleagues, promote peer learning and reduce communication silos [20].
5. **Language-Supportive Policies** – Hospitals should provide access to translated materials, encourage clear English signage, and offer interpretation services where feasible [6].

**Limitations and future research**

While this study provides valuable insights, several limitations must be acknowledged:

- **Sample Size and Scope** – The study was limited to three hospitals in urban Saudi settings; findings may not generalize to rural or private healthcare institutions.
- **Self-Reporting Bias** – Some data rely on participant self-reports, which may under- or over-estimate actual incidents due to recall or social desirability bias [26].
- **Language Testing Constraints** – The English assessment was adapted and not formally validated in the Saudi context, which could affect accuracy [27].

**Recommendation for future research**

- Conduct larger, longitudinal studies to assess the long-term effects of language training on patient safety.
- Include patient perspectives to better understand how language barriers influence their trust and experience.
- Explore cost–benefit analyses of institutional language programs to guide sustainable policy development.

## CONCLUSION

This study reinforced the critical role of English language proficiency in ensuring patient safety within multilingual healthcare environments such as those found in Saudi Arabia. The evidence gathered through proficiency assessments, observations, and staff interviews revealed a consistent pattern: Inadequate English communication among non-native medical staff significantly contributes to clinical errors, treatment delays, and compromised patient understanding. While many healthcare professionals demonstrate a strong commitment to patient care, their ability to do so safely and effectively is often hindered by linguistic barriers. These barriers affected both provider-to-provider interactions and patient engagement, highlighting a systemic challenge that cannot be addressed solely through individual effort. The findings underscored the need for healthcare institutions and policymakers to treat language competency not as a peripheral skill but as a core component of clinical safety and effectiveness. Structured, job-specific ESL training, mandatory proficiency benchmarks, and the integration of communication support that mechanisms should be standard in all facilities employing non-native English speakers. Ultimately, improving English language proficiency is not just about enhancing communication—it is about protecting lives, reducing preventable harm, and upholding the ethical responsibility of safe and equitable care for all patients.

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