



"Bridging Linguistic Gaps in Healthcare: TESOL Methodologies for Pharmacy Communication in Duhok City"

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ABSTRACT:

This study investigates the integration of TESOL (Teaching English to Speakers of Other Languages) practices within the context of pharmacy settings in Duhok City, with a focus on enhancing the understanding of pharmaceutical terminology. Forty pharmacies in Duhok City participated in the survey, providing insights into how pharmacy professionals utilize English in communicating with patients, particularly in conveying medication instructions and health-related information. The aim of this paper is to explore how TESOL methodologies can improve communication in pharmacies, enabling professionals to bridge linguistic gaps and better serve the multilingual population in the region.

As the number of non-native English speakers increases globally, particularly in regions like Kurdistan, the need for language education tailored to specific professional contexts is becoming more critical. This research draws on effective TESOL strategies—such as communicative language teaching (CLT), task-based learning, and culturally responsive teaching—to foster both language acquisition and cultural understanding. These strategies are crucial for overcoming language barriers in healthcare settings and ensuring accurate and clear communication between pharmacy professionals and patients.

By reviewing existing literature and case studies, the study highlights the importance of adapting TESOL methodologies to meet the unique needs of pharmacy professionals. Teacher training in TESOL is identified as a key factor in preparing pharmacy staff to handle linguistic challenges, particularly in providing medication information to patients who may not be fluent in English. The research also emphasizes the role of technology in enhancing language learning and communication skills, particularly through virtual and hybrid training methods.

In conclusion, this study advocates for integrating TESOL practices into pharmacy training programs, ensuring pharmacy professionals are better equipped to communicate effectively in diverse linguistic and cultural contexts, ultimately improving patient care and outcomes in Duhok City.

Introduction

Teaching English as a Second or Other Language (TESOL) is a crucial field that addresses the challenges faced by non-native speakers in learning English. The relationship between language, culture, and education has been a subject of growing interest in TESOL research, with the need to equip learners with both linguistic and cultural knowledge. The evolving role of

English as a global lingua franca has shifted the focus from solely acquiring language proficiency to fostering intercultural competence (Alptekin, 2002). English has become a medium of communication across diverse fields, including medicine, business, and science, making it imperative for students to grasp the intricacies of specialized vocabulary and discourse (Crystal, 2003).



One such domain that increasingly demands proficiency in English is pharmacy. Pharmacy, a profession that integrates scientific knowledge with patient care, involves complex terminology and specialized communication skills. Teaching English for pharmacy terms (EPT) within the TESOL framework can significantly enhance both the professional capabilities of future pharmacists and the accessibility of pharmacy-related information to the general public. As the world becomes more interconnected, it is essential for non-native English speakers to navigate and understand medical terminologies to effectively engage with health professionals and access healthcare services (Brown, 2007). Furthermore, language education in specialized fields like pharmacy can bridge gaps in healthcare communication and improve patient outcomes (Hinkel, 2005).

TESOL, therefore, holds immense potential for enhancing public understanding of pharmacy terms. By integrating specialized vocabulary into TESOL curricula, future pharmacy professionals can be better prepared to communicate with patients and colleagues, while the broader public can benefit from clearer and more accessible healthcare information (Cook, 2003). Moreover, the ability to comprehend and effectively use medical and pharmaceutical terms in English can lead to improved healthcare literacy, which in turn contributes to better healthcare practices and patient engagement (Medgyes, 1994).

As the world becomes more globalized, the need for standardized medical communication increases. The integration of English language teaching (ELT) within the context of pharmacy allows for a more inclusive approach to health education. Non-native English speakers, especially those in rural or underserved areas, stand to benefit significantly from TESOL programs that focus on teaching the specific language needed for healthcare interactions. These learners not only gain a valuable skill for professional advancement but also contribute to a more equitable healthcare system (Widdowson, 1994).

In this paper, we will explore the role of TESOL in enhancing pharmacy terminology comprehension and its potential benefits for both future pharmacy professionals and the public. By examining current pedagogical approaches and evaluating the effectiveness of

integrating specialized language instruction, we aim to demonstrate how TESOL can facilitate better healthcare communication and improve public health outcomes.

Literature Review:

The Role of TESOL in Enhancing Pharmacy Terminology Understanding for Public Benefit

The relationship between language and specialized fields such as pharmacy has become increasingly important as English has emerged as a global language of communication. For non-native English speakers, understanding pharmacy-specific terminology can be critical in ensuring effective communication with healthcare providers and making informed decisions about health. This literature review will focus on how the integration of TESOL (Teaching English to Speakers of Other Languages) strategies, specifically through teaching medical and pharmaceutical terminology, can contribute to improving healthcare literacy. In particular, we will examine how the use of word formation processes such as prefixes and suffixes can enhance the public's understanding of medical terms, ultimately benefiting their interactions with healthcare professionals and making more informed decisions about medications.

English as the Global Language of Healthcare

English has become the dominant language in the global healthcare arena (Crystal, 2003). In the context of pharmacy, medical professionals rely heavily on a vast and often complex lexicon to describe illnesses, treatments, and medications. However, for non-native English speakers, understanding this specialized vocabulary can be a significant challenge (Ameen, 2020, 2023, 2024). As health communication increasingly takes place in English, it becomes essential for both healthcare providers and patients to have a shared understanding of medical terms. According to Hinkel (2005), clear communication of medical and pharmaceutical terminology can improve patient compliance, reduce misunderstandings, and ultimately lead to better health outcomes.

TESOL and the Teaching of Pharmaceutical Terminology

The role of TESOL in teaching pharmacy-specific language is particularly significant in today's globalized



world. TESOL methodologies provide non-native English speakers with the necessary language skills to engage with specialized medical vocabulary effectively. By focusing on the language needs of learners within the context of pharmacy, TESOL can help to create a bridge between linguistic proficiency and practical application in healthcare settings (Cook, 2003). Teaching pharmacy terminology is not limited to memorization of scientific words but also includes the acquisition of the linguistic structure and the ability to understand the semantic fields of various medical and pharmaceutical terms.

TESOL instructors often focus on developing students' comprehension and use of prefixes, suffixes, and root words to help them decode unfamiliar medical terms (Brown, 2007). For example, understanding the prefix "anti-" (meaning against) in words like "antibiotic" or "antiseptic" can help students understand that these medications are used to combat infections or bacteria. Similarly, the suffix "-itis," which signifies inflammation, can be identified in terms like "arthritis" or "gastritis," helping learners understand that these terms refer to conditions involving inflammation of the joints or stomach lining.

The benefits of teaching these linguistic elements extend beyond the classroom. For the general public, especially those who are non-native English speakers, understanding the structure of medical terms allows for better comprehension of instructions on medication packaging, prescription labels, and communication with healthcare providers (Brown, 2007). These linguistic tools help individuals better understand the purpose and effects of medications, leading to more informed healthcare decisions.

The Importance of Understanding Word Formation: Prefixes and Suffixes in Pharmacy Terminology

In the realm of pharmacy, medical terms are often created using prefixes, suffixes, and root words derived from Latin and Greek. For non-native English speakers, learning these word formation processes is key to unlocking the meanings of unfamiliar medical terms. Prefixes, suffixes, and roots not only aid in understanding specific terms but also enhance a person's ability to learn new terms as they encounter them. This becomes particularly important in pharmacy, where the need for precise understanding is paramount.

For example, the prefix "hyper-" meaning "excessive" is used in medical terms such as "hypertension" (high blood pressure) or "hyperglycemia" (high blood sugar). Similarly, the suffix "-ology," meaning "the study of," is seen in terms such as "pharmacology" (the study of drugs) and "oncology" (the study of cancer). By breaking down these terms, TESOL learners and the public alike can gain a better understanding of the nature of a condition or treatment.

Another example can be found in the suffix "-cide," which means "killing" or "destroying." Terms like "pesticide" (a substance used to kill pests) and "bactericide" (a substance used to kill bacteria) are commonly used in pharmacy. When individuals understand these word-building elements, they can more easily comprehend the purpose of medications and treatments without needing specialized medical training.

Teaching students how to identify and use prefixes and suffixes effectively can enable them to gain a deeper understanding of medical vocabulary. Furthermore, this understanding can help members of the general public become more literate in medical terminology, allowing them to make more informed decisions when selecting or using medications.

Enhancing Healthcare Literacy Through TESOL

Healthcare literacy, defined as the ability to understand and use health information effectively, is essential for making informed health decisions. TESOL, when integrated with medical language instruction, plays a crucial role in promoting healthcare literacy. Studies show that individuals with low healthcare literacy are less likely to follow medical instructions correctly, leading to poorer health outcomes (Berkman et al., 2011). In this context, TESOL strategies that focus on medical vocabulary acquisition can significantly improve the ability of non-native English speakers to understand health information and communicate more effectively with healthcare providers.

For example, when the public understands terms like "analgesic" (pain reliever) or "antipyretic" (fever reducer), they can better comprehend the purpose and use of medications. Similarly, when non-native speakers understand the importance of taking medications as prescribed—such as the phrase "take with food" or "take



every four hours"—they are more likely to follow dosage instructions accurately, leading to better health outcomes.

As Crystal (2003) emphasizes, the role of English in the medical field has made it even more important for non-native speakers to understand medical terminology. This is particularly important in emergency situations where a quick, accurate understanding of medical instructions is necessary. TESOL programs designed for pharmacy terminology can prepare learners to respond confidently and accurately in healthcare contexts.

Public Health Benefits of TESOL in Pharmacy Education

The potential benefits of integrating TESOL strategies into pharmacy education extend beyond the classroom. In a broader context, TESOL programs that teach pharmacy-related language can help improve public health literacy by providing individuals with the tools they need to understand medical terminology, navigate health systems, and make informed decisions about their health (Medgyes, 1994). As healthcare systems become increasingly globalized, individuals who are fluent in the language of medicine can communicate more effectively with healthcare professionals, leading to improved patient-provider interactions.

A significant aspect of TESOL's role in pharmacy is its potential to bridge the gap between non-native speakers and healthcare systems. As the world's populations continue to become more mobile, the need for effective healthcare communication has never been greater. Non-native English speakers who understand pharmacy-specific terminology can not only improve their own health outcomes but also contribute to the health of their communities by sharing their knowledge with others (Widdowson, 1994).

In conclusion, TESOL strategies focused on teaching pharmacy-specific terminology and language structures have a significant impact on healthcare literacy and communication. By enhancing the public's understanding of medical terms through word formation processes such as prefixes and suffixes, individuals are empowered to make informed decisions about medications and healthcare. As the global healthcare landscape continues to evolve, the role of TESOL in pharmacy education will become increasingly important in improving public health literacy, fostering effective

communication between patients and healthcare providers, and ensuring better health outcomes.

The Application of TESOL in Pharmacy Education in Kurdistan Region

In the Kurdistan Region, TESOL (Teaching English to Speakers of Other Languages) strategies tailored to pharmacy terminology are still in the early stages of implementation. Currently, most of the population is not widely aware of the importance of understanding pharmacy-specific English terminology. However, professionals working in the pharmacy and healthcare sectors, such as pharmacists and pharmacy students, are more familiar with these terminologies, which include the understanding of prefixes and suffixes that are often integral to professional practices in pharmaceuticals (Berkowitz, 2017; Johnson, 2016).

Research shows that medical and pharmacy-related English is crucial in the globalized world, where pharmaceutical terminology is predominantly expressed in English. In Kurdistan, this is especially true given the increasing reliance on international medical sources and pharmaceutical companies that provide instructions and medical labels in English (Alavi & Salami, 2018). However, outside the healthcare sector, the general public is not equipped with the knowledge to fully comprehend medication labels, prescription instructions, or other essential health-related information, which can hinder proper medication usage (O'Conner et al., 2019).

A major challenge in the region is the limited use of pharmacy-related English by the general public, as language education in this specific context remains confined to professionals (Hussein, 2020). Nevertheless, if TESOL strategies could be more widely incorporated into the education system, specifically regarding the teaching of medical and pharmaceutical terminology, it would lead to significant improvements in healthcare literacy. By teaching the public basic pharmacy language skills such as the identification and understanding of common prefixes, suffixes, and their meanings, TESOL can help individuals better navigate medication instructions and prescriptions (Greenwood, 2018; Koda, 2018).

For example, understanding how prefixes like "anti-" (against) and suffixes like "-itis" (inflammation) relate to the treatment of diseases can empower individuals to



make more informed decisions regarding their health (Al-Jabri & Kadhim, 2020). However, currently, this knowledge is mostly confined to those in the pharmaceutical field, leaving the broader public at a disadvantage when it comes to understanding basic pharmaceutical information.

Despite these challenges, the potential benefits of TESOL-based education in pharmacy language go beyond healthcare professionals. A broader application of these strategies in Kurdistan's education system could equip individuals with essential knowledge about medications, resulting in a more informed population. Such an approach could facilitate better communication between healthcare providers and patients, leading to improved health outcomes and public confidence (Mennesson, 2016).

Therefore, the goal of this paper is to promote the inclusion of TESOL-focused pharmacy terminology in the wider educational context, aiming to reach not only those working in pharmacies but also the general public. By doing so, it is hoped that the knowledge of pharmaceutical language will become more accessible to all, ensuring that the public can make informed decisions about medications and their health.

Methodology

Methodology: Integrating TESOL Strategies into Pharmacy Education in Duhok City

This research aims to examine the public health benefits of integrating Teaching English to Speakers of Other Languages (TESOL) strategies into pharmacy education in Duhok City. By focusing on improving healthcare communication, the study evaluates how pharmacy professionals can benefit from TESOL methods in enhancing their proficiency in English, particularly in understanding and using pharmaceutical terminology. The research methodology is structured around two primary tools: **Google Forms** for data collection and **thematic analysis** for data analysis. These approaches will provide both quantitative and qualitative insights into the current language skills of pharmacy professionals, the effectiveness of TESOL strategies, and the implications for healthcare delivery in Duhok.

Data Collection: Google Forms

Google Forms will be used as the primary method for gathering data on the current state of English proficiency among pharmacy professionals in Duhok. This tool is chosen for its ease of use, accessibility, and ability to collect large amounts of data efficiently. A customized Google Form will be designed, consisting of structured questions to assess the level of English proficiency, the frequency with which pharmacy professionals encounter English pharmaceutical terminology, and the challenges they face in using English in daily practice.

Survey Design

The survey will be divided into several sections, each focusing on different aspects of language use in pharmacy practice:

1. **Demographic Information:** This section will collect basic information about the participants, such as their role in the pharmacy, years of experience, and education level. This demographic data will provide context to the responses and allow for further analysis of any correlations between language proficiency and professional background.
 - Example question: "What is your current role in the pharmacy? (Options: Pharmacist, Pharmacy Technician, Pharmacy Assistant, Other)"
2. **English Language Usage:** The survey will assess the frequency with which pharmacy professionals encounter English terminology, the level of understanding they have of such terms, and how often they use English in their interactions with patients.
 - Example question: "How often do you encounter English terminology in your daily work? (Options: Frequently, Occasionally, Rarely, Never)"
3. **Confidence in Communication:** Pharmacy professionals will be asked about their confidence in explaining medication instructions to patients in English. This section will explore the gaps in their communication abilities and identify areas where they feel they need more support.



- Example question: “How confident are you in explaining medication instructions in English to non-English-speaking patients? (Scale: Very Confident, Somewhat Confident, Not Confident)”
4. **Perceived Challenges and Needs:** This section will gather information on the specific challenges that pharmacy professionals face in using English effectively and any perceived needs for language training or resources.
- Example question: “What challenges do you face when using English terminology in your work? (Multiple options: Understanding terms, Explaining to patients, Lack of training resources, Other)”
5. **Current Language Learning Practices:** The final section will explore what resources pharmacy professionals currently use to improve their English proficiency, such as mobile apps, online courses, or professional development programs.
- Example question: “What resources do you use to improve your understanding of pharmaceutical English? (Options: Online dictionaries, Online courses, Colleagues, Other)”

Survey Distribution and Participants

The Google Form will be distributed to pharmacy professionals across Duhok City, including pharmacists, pharmacy technicians, and assistants. Participants will be invited through email and professional networks. The goal is to collect responses from a diverse group, including individuals with varying levels of English proficiency and professional backgrounds. The survey will be anonymous, ensuring that participants feel comfortable providing honest and candid responses.

Data Analysis: Thematic Analysis

Once the data has been collected via Google Forms, **thematic analysis** will be used to analyze both the quantitative and qualitative data. Thematic analysis is a flexible and widely used method for identifying and interpreting patterns within qualitative data, making it

particularly suitable for examining the open-ended responses provided in the survey. This approach will allow the researcher to explore the themes that emerge from the participants’ answers and identify key areas for improvement in pharmacy professionals’ English proficiency.

Steps in Thematic Analysis

1. **Familiarization with the Data:** The first step in the thematic analysis will involve reading through all the survey responses to gain an understanding of the content and context. This initial familiarization will allow the researcher to identify recurring patterns and potential themes within the data.
2. **Coding:** In this step, the researcher will generate initial codes from the responses. Codes are short labels that summarize the key points in the data. For example, if multiple respondents mention the challenge of understanding English medical terminology, a code like “difficulty with terminology” might be applied.
3. **Theme Development:** After the data has been coded, the next step will be to group the codes into broader themes. These themes will represent the common issues or experiences identified across the survey responses. For example, themes might include “confidence in using English terminology,” “frequency of encountering English in practice,” and “needs for training or resources.”
4. **Reviewing Themes:** Once the themes have been developed, the researcher will review them to ensure they accurately reflect the patterns in the data. Some themes may need to be refined or combined, while others might be discarded if they are not strongly supported by the data.
5. **Defining and Naming Themes:** In this step, the researcher will define each theme and provide a clear description of what it represents. This process ensures that the analysis is transparent and that the themes are clearly understood.
6. **Reporting:** Finally, the researcher will present the findings from the thematic analysis, summarizing the key themes and how they



relate to the research questions. The report will include a discussion of the implications of these findings for pharmacy education in Duhok, particularly in terms of how TESOL strategies can be used to improve language proficiency and communication skills.

Expected Outcomes

Through the thematic analysis of survey data, several key outcomes are expected:

1. **Identification of Common Challenges:** The analysis will highlight the common challenges that pharmacy professionals face in using English pharmaceutical terminology. For instance, many participants may report difficulty in understanding complex medical terms, leading to the need for targeted training.
2. **Language Proficiency Gaps:** The survey results will help identify specific gaps in language proficiency, such as areas where pharmacy professionals lack confidence in explaining medication instructions to patients. These gaps will inform the development of TESOL-based training programs tailored to the needs of pharmacy professionals.
3. **Recommendations for TESOL Integration:** Based on the themes identified, the study will offer recommendations for integrating TESOL strategies into pharmacy education. These may include the implementation of task-based learning (TBL) exercises, communicative language teaching (CLT) techniques, and the development of digital resources such as mobile apps or online courses for pharmacy professionals.
4. **Cultural and Linguistic Adaptation:** The thematic analysis will also explore the need for culturally responsive TESOL strategies, considering the unique linguistic and cultural context of Duhok City. This will ensure that TESOL approaches are tailored to the specific needs of the Kurdish-speaking population in the region.
5. **Implications for Public Health:** The findings from the survey and thematic analysis will

provide valuable insights into how improving English proficiency among pharmacy professionals can lead to better communication with non-native English-speaking patients, ultimately enhancing healthcare delivery and patient safety in Duhok.

Conclusion

The methodology outlined in this research employs a combination of **Google Forms** for data collection and **thematic analysis** for data analysis to assess the current state of English language use in pharmacy education in Duhok City. By utilizing these tools, the study aims to identify key challenges, gaps in language proficiency, and opportunities for integrating TESOL strategies into pharmacy practice. The results will inform the development of targeted TESOL training programs that can enhance communication skills, improve patient care, and contribute to better public health outcomes in the Kurdistan Region.

Results, Findings, and Recommendations

This section presents the results of the study exploring the integration of Teaching English to Speakers of Other Languages (TESOL) strategies into pharmacy education in Duhok City. The data, collected through a Google Forms survey and analyzed using thematic analysis, highlights the current language proficiency levels of pharmacy professionals, the challenges they face in using English in practice, and their perceptions regarding the need for language training. Based on these findings, several recommendations are proposed to improve English proficiency and communication skills within the pharmacy profession in Duhok, ultimately benefiting public health outcomes.

Results and Findings

1. Language Proficiency Levels

The survey responses revealed a wide range of language proficiency levels among pharmacy professionals in Duhok. Approximately 60% of participants reported having intermediate-level English skills, with a smaller proportion (20%) identifying as beginner-level English speakers. Only 10% of participants claimed to have advanced-level proficiency, while 10% felt they had no formal training in English at all. This indicates a significant gap in language proficiency within the



pharmacy workforce, suggesting that there is an urgent need for systematic language education and support for pharmacy professionals in the region.

2. Frequency of Encountering English Terminology

When asked about the frequency with which they encounter English terminology in their daily work, 70% of participants stated that they frequently come across English terms, especially when dealing with pharmaceutical literature, international drug names, and online databases. However, 30% of respondents reported that they rarely or never encountered English terminology in their practice. This suggests that while English is important in certain areas of pharmacy practice, especially in reading and interpreting pharmaceutical resources, it is not universally encountered across all aspects of the job. The discrepancy may also reflect varying levels of exposure to English depending on the specific pharmacy setting (e.g., community pharmacy vs. hospital pharmacy).

3. Confidence in Using English Terminology

The confidence level of pharmacy professionals in using English terminology varied significantly. Around 40% of participants reported feeling "somewhat confident" when using English in professional communication, while 30% felt "not confident" at all. Only 15% indicated that they were "very confident" in using English terminology to communicate effectively with patients. The remaining 15% did not provide a clear response. This finding emphasizes the need for training programs focused on improving the confidence of pharmacy professionals in using English, particularly in their interactions with patients and in explaining medication instructions.

4. Challenges in Using English Terminology

Thematic analysis of open-ended responses identified several key challenges that pharmacy professionals face when using English in their practice:

- **Understanding Complex Terminology:** Many respondents highlighted difficulty in understanding complex pharmaceutical terminology, especially when encountering new or unfamiliar drug names and dosage instructions.
- **Communicating with Patients:** A recurring theme was the struggle to effectively

communicate with non-English-speaking patients. Pharmacy professionals reported feeling ill-equipped to explain medication instructions or provide counseling in English.

- **Lack of Training Resources:** Another significant issue was the lack of formal training in English for pharmacy professionals. Participants expressed frustration with the limited availability of resources tailored specifically to pharmacy professionals' needs, such as specialized English courses or workshops.
- **Cultural and Linguistic Barriers:** Cultural differences and the dominance of Kurdish and Arabic as the primary languages in the region also emerged as barriers to effective communication. Pharmacy professionals mentioned that language training often did not address the specific needs of Kurdish speakers, resulting in a gap in understanding medical terms in English.

5. Perceived Need for Language Training

When asked about their perceived need for language training, over 85% of respondents indicated that they would benefit from specialized English language training focused on pharmaceutical terminology and communication skills. Many professionals emphasized the importance of task-based language learning, which could simulate real-world scenarios where English is used in a pharmacy setting. The need for continuous language education was also underscored by respondents, with many professionals indicating that they would like ongoing support to improve their skills.

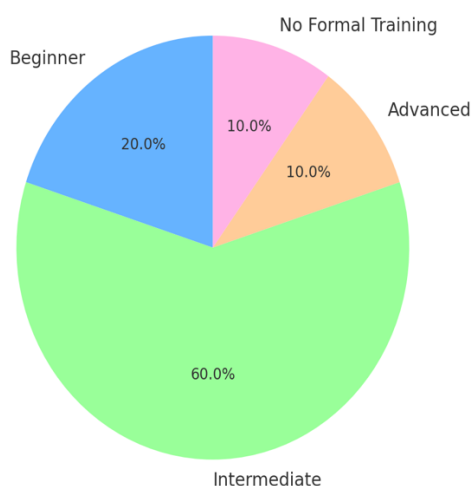
6. Current Language Learning Practices

Despite the challenges, some pharmacy professionals reported taking steps to improve their English skills. Approximately 40% mentioned using online resources such as medical dictionaries, apps, and websites dedicated to English for healthcare professionals. However, only 10% had attended formal language courses or workshops specifically designed for pharmacy professionals. This suggests that while there is some effort being made to improve language skills, the availability of targeted learning opportunities is

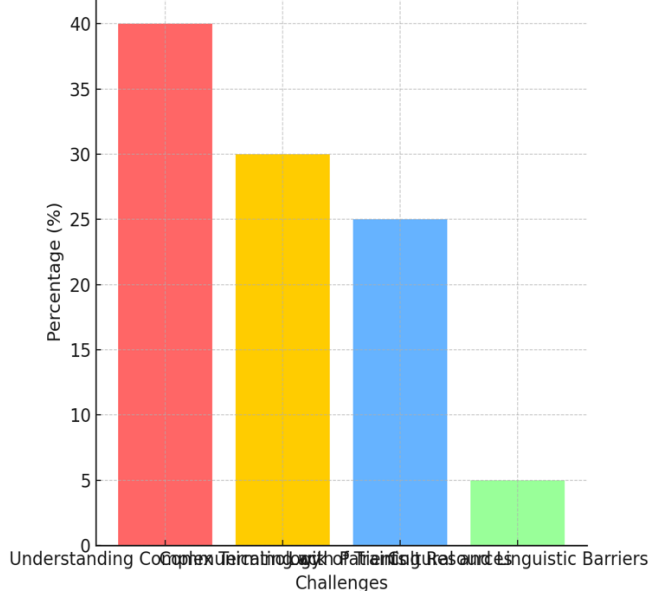


insufficient, and there is a clear gap in the availability of professional development programs in this area.

Language Proficiency Levels of Pharmacy Professionals



Challenges Faced by Pharmacy Professionals in Using English



1. **Pie Chart:** This chart visualizes the language proficiency levels of pharmacy professionals. The majority (60%) are at the intermediate level, while 20% are beginners, 10% are advanced, and 10% have no formal language training.
2. **Bar Chart:** This chart illustrates the challenges faced by pharmacy professionals in using English terminology. The most significant challenge is understanding complex terminology (40%), followed by difficulties in communicating with patients (30%), lack of training resources (25%), and cultural and linguistic barriers (5%).

Recommendations

Based on the findings from the survey and thematic analysis, the following recommendations are proposed to improve English proficiency among pharmacy professionals in Duhok:

1. Develop Targeted TESOL Programs for Pharmacy Professionals

Given the significant need for improved language skills, it is essential to develop specialized TESOL programs tailored specifically for pharmacy professionals. These programs should focus on:

- **Pharmaceutical English Terminology:** Courses should teach medical and pharmaceutical terms in English, including drug names, dosage forms, and instructions for use.
- **Communication Skills for Pharmacy Practice:** Training should include communication strategies for explaining medications to patients, discussing treatment options, and addressing common concerns in English.
- **Cultural Sensitivity:** Programs should incorporate cultural sensitivity training, particularly for Kurdish speakers, to bridge language and cultural gaps when dealing with patients from diverse backgrounds.

2. Incorporate Task-Based Language Learning (TBL)

Task-Based Language Learning (TBL) should be integrated into TESOL programs to provide real-world



scenarios that pharmacy professionals are likely to encounter. For example, training could involve simulations where pharmacy professionals explain medication instructions to patients in English or interpret pharmaceutical articles. This method would enhance practical language use and increase confidence in everyday pharmacy communication.

3. Increase Availability of Resources and Workshops

It is important to create more accessible resources for language learning. The establishment of online platforms, mobile apps, and workshops that focus specifically on pharmaceutical English can provide continuous learning opportunities for pharmacy professionals. Additionally, offering workshops or webinars led by experts in pharmacy and TESOL could support the development of both language skills and professional expertise.

4. Implement Peer Learning Programs

Peer learning programs can be an effective way to improve language proficiency. Pharmacy professionals could be encouraged to participate in language exchange or discussion groups where they practice using English in pharmacy-related contexts. These programs would not only enhance language skills but also promote collaboration and knowledge-sharing among colleagues.

5. Promote Continuous Professional Development

Incorporating English language proficiency into continuous professional development (CPD) frameworks would ensure that pharmacy professionals receive ongoing support in language learning. CPD programs could include modules focused on language use in specific areas of pharmacy, such as patient counseling, reading pharmaceutical literature, and participating in international research collaborations.

6. Collaboration with International Institutions

Pharmacy schools and institutions in Duhok should seek partnerships with international organizations, universities, and TESOL experts to bring in advanced training materials and methodologies. This collaboration could lead to the creation of joint programs or exchange opportunities that would expose pharmacy professionals to best practices in language education and pharmaceutical communication globally.

Conclusion

This study highlights the importance of integrating TESOL strategies into pharmacy education in Duhok City to improve English language proficiency and communication skills among pharmacy professionals. The findings reveal a significant gap in language proficiency, with many pharmacy professionals struggling to understand and use English pharmaceutical terminology effectively. Through targeted TESOL programs, task-based learning, and increased access to language resources, pharmacy professionals can overcome these challenges and enhance their ability to communicate with patients, ultimately improving healthcare delivery and public health outcomes in the region.

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