


ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL

Available Online: <https://assajournal.com>
 Vol. 5 No. 02 Apr-Jun 2026. Page#.1254-1270
 Print ISSN: [3006-2497](https://doi.org/10.5281/zenodo.20369073) Online ISSN: [3006-2500](https://doi.org/10.5281/zenodo.20369073)
 Platform & Workflow by: Open Journal Systems
<https://doi.org/10.5281/zenodo.20369073>



English in Clinical Settings: A Target Situation Analysis of Nurse-Patient and Interprofessional Communication Needs Among Undergraduate Nursing Students in Pakistan

Sehar Eman

BS (Hons) English Literature and Linguistics, Department of Applied Linguistics, Government College University Faisalabad, Pakistan

sehareman468@gmail.com

Maria Butt

BS (Hons) English Literature and Linguistics, Department of Applied Linguistics, Government College University Faisalabad, Pakistan

mariazbutt791@gmail.com

Muhammad Asim Khan

Visiting Lecturer, Department of Applied Linguistics, Government College University Faisalabad, Pakistan

asim1412@gmail.com

Abstract

The present study was conducted Target Situation Analysis (TSA) of 99 female students of nursing undergraduate programme at School of Nursing, The University of Faisalabad (TUF), Pakistan. The study highlighted two key areas of clinical English use for nurses and patients, interprofessional communication and nurse–patient communication. Applied a quantitative survey method with a six-section Likert-scale questionnaire to compare the two domains in terms of their requirements for clinical English. The use of paired-samples t-test, one-way ANOVA and Pearson correlation analysis. According to the results, there was a statistically significant difference between the interprofessional communication use (B2; M = 3.646) and nurse–patient communication use (B3; M = 2.889) and this difference was confirmed by a paired t-test ($t = 7.242$, $p < .001$). The response distribution of the item B3 was very spread out ($SD = 1.203$) and there were 42.4% of students who disagreed or strongly disagreed with the item in the entire instrument, thus recording the lowest mean. Interprofessional communication (B2) was rated significantly higher on both measures and there was no significant difference between them ($t = 0.547$, $p = .586$). The results presented a higher correlation between the use of interprofessional communication and ESP needs ($r = .285$), course evaluation ($r = .502$) and speaking self-competence ($r = .544$) than between speaker competence and nurse–patient communication use. There were no statistically significant differences among academic levels for either domain in the ANOVA results, indicating that the two-tier gap does not differ significantly across clinical experience. Communication with the nurse (39.4%) and interprofessional communication (37.4%) were the second and third highest of the priorities selected in the Section G priority checklist, next to pronunciation fluency (43.4%). The overall instrument had excellent reliability ($\alpha = .900$). The results show that there is a two-tiered system of clinical English use in TUF, which suggests an urgent clinical English intervention needed in TUF based on CLT.

Keywords: target situation analysis, nurse–patient communication, interprofessional communication, ESP, nursing education, CLT, Pakistan, clinical English, needs analysis

1. Introduction

A nurse goes into a ward of a hospital, a world of language. All of the actions that are carried out by a professional, from the handing over of a patient at the end of a shift to the explanation offered to a worried family member of a medication, are language acts. This language world is particularly complicated for nursing students in Pakistan, an official language of which is English, and where it is used as the medium of instruction in health sciences education. They need to learn to communicate in English with two very different communities: their professional colleagues such as doctors, pharmacists and senior nurses; and their patients and patients' families, some of whom are not at all comfortable communicating in English (Khatoon et al., 2019; Tajamal et al., 2025).

Interprofessional communication (between healthcare professionals) and nurse–patient communication (between nurse and patient or family) are distinct forms of clinical communication with distinct requirements for the language they use, their social interactions and the impact on patient safety. Interprofessional communication involves using technical and standardized medical language in a structured setting like ward rounds, handovers and case discussions (Coifman et al., 2021; Liaw et al., 2014). In the case of nurse–patient communication, it demands a patient-centred and empathetic language that is sensitive to the patient's level of understanding, as well as their emotional state and cultural background (Huang & Yu, 2023; Finch, 2014). Although nurse–patient and interprofessional communication are discussed in nursing education textbooks, they are typically split into two distinct sections, leaving an educational gap between the two in the context of nursing practice and education (Carmack & Harville, 2020).

Though they may differ, both forms of communication are important to the profession of nursing. However, some studies revealed that the nursing students were more comfortable and engaged in more English in interprofessional contexts than nurse–patient contexts (Lu, 2018; Nurakhir, 2018). Local languages are preferred by the patients and families in Pakistan, and the nurses' English proficiency is limited as they hardly get to use clinical English in their clinical placement (Sattar et al., 2026; Khatoon et al., 2019). The research conducted by Kanwal et al. (2026) emphasizes the increasing significance of English in the context of clinical and interprofessional communication in the healthcare field among undergraduate nursing students in Pakistan. The researchers analyzed the needs analysis framework and Communicative Language Teaching (CLT) approach as they found that the nursing students were highly conscious of professional writing skills and ESP learning needs, but had immense problems in the real situation of clinical communication, especially in the context of interaction with patients and their families (Kanwal et al., 2026). Results showed that there was a notable discrepancy between the English learning in the classroom and the demands for the effective communication between nurse–patient and interprofessional communication in a healthcare environment, suggesting that the current English curricula did not fully meet the needs of nursing students. The findings also showed that students' perceived language needs were found to be highly correlated with their ESP course evaluation indicating the need for clinically oriented and communication based English courses in nursing institutions in Pakistan (Kanwal et al., 2026).

In this study this two tier structure is directly investigated among 99 female undergraduate nursing students of School of Nursing, TUF, Pakistan. The study, employing a TSA-based quantitative analysis, compares the use of nurse–patient and interprofessional communication; explores the links between nurse–patient and interprofessional communication and speaking competence; and highlights the implications of the students' own priorities in light of this structural gap. This paper is an original work as it was the first quantitative study directly

comparing the nurse–patient clinical English versus interprofessional clinical English use in a Pakistan nursing school, continuing previous methodological approaches of Liu et al. (2023) and Alharby (2005) which used TSA in MDH and other MDH institutions, respectively.

1.1 Research Questions

This study is guided by three research questions:

RQ1. Is there a statistically significant difference between nurse–patient communication use and interprofessional communication use in English among female nursing students at TUF, and how do these two domains compare with the general clinical English requirement?

RQ2. How do nurse–patient and interprofessional communication relate to students' speaking self-competence, course evaluation, and ESP learning needs and preferences, and what do these relationships suggest for ESP curriculum design?

RQ3. Do nurse–patient and interprofessional communication use differ significantly across academic levels and clinical exposure groups, and what does this pattern suggest about how clinical experience shapes the two communication domains differently?

2. Literature Review

2.1 Two Domains of Clinical English: Nurse–Patient and Interprofessional Communication

A clear difference between nurse–patient communication and interprofessional communication is indeed a meaningful difference in language needs, social roles and power dynamics of clinical settings. The patient-centered nature of nurse–patient communication is characterized by a language which is suitable for non-specialists, has an empathetic and trust-building character (Huang & Yu, 2023; Finch, 2014). Huang et al. (2022) conducted a mixed-methods study that observed real nurse–patient interactions in China, and concluded that the nurse needs to use specific engagement strategies, including "raising the patient's concerns" and "putting themselves in the patient's shoes," as well as "modifying the way of explaining things according to the patient's individual needs. These engagement strategies are not typically taught in general English classes and, therefore, need a specific approach that is discourse-oriented. Interprofessional communication, by contrast, relies on common medical language, on a shared method of presentation (e.g. a handover protocol) and on an understanding of clinical knowledge on both sides (Coifman et al., 2021; Pinelli et al., 2015).

In their groundbreaking research, Liu et al. (2023) surveyed nurses in five teaching hospitals in China and concluded that communicative competence self-efficacy of the nurses was closely correlated with their satisfaction in the target situation communication demands. Accordingly, a four-step teaching model for EMP teaching based on TSA was designed, which revealed that nurse–patient communication analysis based on TSA provides direct guidance for designing courses. The same manner, Liu and Doss (2026) adopted Task Based Needs Analysis (TBNA) with the aid of artificial intelligence to find 21 target tasks in nurse–patient English communication of a Chinese vocational university, which clearly shows that the precision and efficiency of TSA can be greatly enhanced by modern means for course design.

Lu (2018) also discovered that the primary language for interprofessional communication and documentation was English among the nurses at a hospital in Taiwan and English was not used for patient communication, which was rare and challenging. Huang and Yu (2023) concluded that the Chinese nursing students used a lot of fixed phrases and were unable to adapt their communication to the needs of each patient. Internationally educated nurses (IENs) had difficulties moving from their language classroom skills to the context of actual clinical communication in Australia (O'Neill, 2011), particularly when dealing with cultural and identity issues beyond language skills in nurse–patient interactions. Crawford and Candlin (2013) also identified a need for language support for the nursing context to prepare culturally and

linguistically diverse nursing students in Australia, as their general academic English preparation was inadequate to meet the demands of the context.

The study in Pakistan conducted by Khatoun et al. (2019) revealed that most frequently, nursing students communicated in English during ward rounds, and English was less frequently used for patient communication. In a multi-stakeholder study, Tajamal et al. (2025) demonstrated the lack of patient education in English and its urgent need. The study by Sattar et al. (2026) conducted on the needs analysis of the students of DPT at GCUF revealed ceiling scores (M = 5.00 on the wants section) in the speaking domain for professional communication which indicates that there is an urgent need of spoken clinical English instruction in DPT. In the allied health ESP at GCUF, similarly Sadia et al. (2026) and Riaz et al. (2026) reported that the most important aspect of allied health ESP was patient communication.

2.2 Interprofessional Communication: Structures and Challenges

In health services communication is interprofessional and not just a matter of individual skills, it is a complex social and institutional phenomenon that requires teamwork, role negotiation, shared responsibility and system level factors (Salehi et al., 2024). In this gap analysis, Human Resources Management (HRM) had the highest score indicating the greatest gap, and along with contextual, organizational and individual factors, communication was scored as a critical factor in promoting interprofessional teams in Iranian health care units by Salehi et al. (2024). Their I-PA revealed specific sub-indicators to be areas of interprofessional practice that were identified as being weak, these involved the culture of respect, role clarity and team availability, all of which have direct implications for communication training.

The researchers showed that the interprofessional education based on simulation significantly enhanced nursing and medical students' self-confidences in interprofessional communication ($p < .0001$) and their perceptions of interprofessional education. (Liaw et al., 2014) The Team STEPPS program demonstrated that an interprofessional communication structured training can have measurable results in a short time. In Thailand, Benjasirisan et al. (2021) reported that 77.6% of nursing students did not participate in an interprofessional education (IPE) course and communication was determined as the most important skill for multidisciplinary nursing practice. The results of this study further support the notion that interprofessional communication training is still not well developed even in countries where nursing education systems are well developed, this problem is even more pronounced in Pakistan where IPE programmes are not yet a norm. Social network analysis of hospital discharge communication revealed by Pinelli et al. (2015) that most communication events took place between primary nurses and patients, thus making the nurse the hub of the communication networks at the hospital, both regarding interprofessional and patient communication.

2.3 Target Situation Analysis in Nursing ESP

Target Situation Analysis (TSA) developed by Hutchinson and Waters (1987), asks: What do the learners have to do with the language in their TPS? In the nursing context, the target situation involves any communicative exchanges occurring in clinical environments, such as providing explanations to patients, recording histories, handing over to other ward members, writing nursing notes, consulting with doctors and giving discharge information (Jubhari et al., 2022; Gass, 2012). TSA is significant because it utilizes the needs of the workplace as the foundation for designing an ESP course instead of assuming students' needs.

Alharby (2005) carried out a pioneering TSA to examine the English communication requirement of 225 health professionals from three hospitals in Riyadh, Saudi Arabia, and identified an extensive use of English in all the health roles studied, with physicians and dentists having the highest usage compared to the others studied, namely pharmacists, who were the least using

English. Importantly, it was found that the inadequacies of English courses for relating language skills to the demands of actual medical work is in line with Alharby (2005) finding decades later in the TUF context. Based on the survey data of 411 nurses, Liu et al. (2023) further improved the TSA methodology for the nursing field, which is to integrate the target situation demands with the communicative competence detailed model, and arrived at the structured EMP teaching model. Mazdayasna and Tahririan (2008) used TSA for Iranian nursing and midwifery students, and concluded that speaking and listening in the clinical situations were the least developed skills compared to the demands of the target situations.

A similar approach was taken by Choi (2021) in South Korea, who discovered that students' ESP target situation demands were much more complex than what was covered in their existing ESP courses. In India, Shanavas et al. (2024) discovered that general language instruction was failing to respond to the real world hierarchical and intercultural communication needs of nurses in the clinical context and therefore, they strongly recommended for the development of ESP programmes based on TSA.

2.4 CLT and Clinical Communication Development

CLT offers the pedagogical approach to fill identified gaps identified from TSA. Language competence is a central principle of CLT is language competence can be gained by meaningful communicative use (Febrijanto & Kurniajati, 2017). It is important to note that in nursing ESP, students will not gain competence in the domain of nurse–patient communication if they do not engage in clinical practice with patients in English or in simulated clinical situations in which nurse–patient communication is conducted in English. The activities of CLT are nurse–patient communication and interprofessional communication in a simulated context of patient communication role-plays, ward rounds, case presentation practice, and patient history taking exercises (Mulyadi et al., 2025).

Huang (2025) proposed that CLT-based nursing ESP should shift from communicative language activities at the surface level to communicative language activity at the discourse level, emphasizing the cultivation of students' communicative competence in handling complex communicative scenarios like conveying negative information, negotiating understanding with patients, and collaborating with other professions for patient care. The study revealed from empirical evidence that the competence of ESP developed by portfolio activities that applied CLT could predict the professional nursing competence ($r = 0.684$; $P < 0.001$) (Febrijanto & Kristanti, 2026). Those problems with communication reported by O'Neill (2011) and Crawford and Candlin (2013) validate the assertion that having students in clinical contexts without communicative support is not enough. Liu and Doss (2026) demonstrated that TBNA could be carried out using AI to accurately determine the target tasks that are most required in nurse–patient English communication, allowing for much more focused instruction of CLT than is possible by a general needs analysis. TSA has been used to improve the relevance of ESP instruction in Indonesia by Marleni et al. (2023) where the result showed that TSA-based curriculum analysis was very effective in increasing the relevance of ESP instruction in learning.

2.5 Theoretical Framework

The framework for this study is based on TSA (Hutchinson and Waters, 1987), and CLT principles, in relation to the nurse–patient versus interprofessional communication difference. In this study, necessities are defined in the way they are addressed in Hutchinson and Waters' (1987) model: that is, the demands of nursing practice itself, necessitating effective communication both in nurse–patient and interprofessional contexts, with the aim of practicing safely. Lacks are realized in the difference between students' actual reported English use in nurse–patient contexts (B3) and in interprofessional contexts (B2); if students report a significant difference between the use

of English in nurse–patient contexts and in interprofessional contexts, this is a domain-specific lack that TSA identifies as a curriculum priority (Sadia et al., 2026; Riaz et al., 2026). Section F learning preferences and the Section G priority checklist operationalized wants, showing what students see as being their most pressing needs for communication learning.

The prescriptive dimension of the CLT does what it says: It is the specification of what instruction ought to be based on TSA and cover the lacks it found. Thus, CLT recommends that this gap in nurse–patient communication, which is defined as the lack of real-world practice of patient communication in clinical settings, be filled with systematic communicative practice in safe and simulated classroom settings: patient communication role-plays, simulated patient history, clinical empathy exercises, and authentic patient communication materials (Finch, 2014; Huang et al., 2022). This integrated TSA + CLT approach builds on the work done by Liu et al. (2023) in China, and Sadia et al. (2026) and Riaz et al. (2026) in Pakistan, but applies it to the nurse–patient vs. interprofessional distinction that is central to the present study.

3. Methodology

3.1 Research Design

The design of this study was quantitative and survey, and focused on a comparison based on TSA. The quantitative survey design is suitable for ESP needs analysis due to the possibility to compare items and groups with the help of inferential statistics (Khatoun et al., 2019; Susmini & Episiasi, 2021; Liu et al., 2023). The use of paired t-tests as the primary analytic tool is appropriate for this study because the focus was on within group differences, rather than between group differences, in the areas of communication. The choice of the methodology follows the approach taken by Alharby (2005) and Liu et al. (2023) who employed quantitative TSA based on survey methods to compare the needs for communication in different professional settings in the field of healthcare.

3.2 Participants

The participants were 99 female undergraduate nurses' students from the School of Nursing, The University of Faisalabad (TUF), Faisalabad, Pakistan which is a private sector university. The data is collected in December 2025. One male respondent was discarded from analysis and a final sample of only females (N = 99) was obtained. The sample included students from first year (n = 5, 5.1%) to internship level (n = 17, 17.2%), with the largest groups in third year (n = 39, 39.4%) and fourth year (n = 32, 32.3%). The majority (46.5%) were aged 20–22 years. For clinical exposure 83 students (83.8%) indicated regular exposure and 16 (16.2%) students indicated limited exposure. Complete demographic information is contained in Table 1.

Table 1: Demographic Profile of Participants (N = 99)

Variable	Category	n	%
Gender	Female	99	100.0
Age	< 20 years	3	3.0
	20–22 years	46	46.5
	23–25 years	24	24.2
	> 25 years	26	26.3
Academic Level	1st Year	5	5.1
	2nd Year	6	6.1
	3rd Year	39	39.4
	4th Year	32	32.3
	Internship	17	17.2
Clinical Exposure	Regular	83	83.8
	Limited	16	16.2

Note. All participants were female undergraduate nursing students at the School of Nursing, The University of Faisalabad (TUF), Pakistan.

3.3 Instrument

A seven section questionnaire was created based on the CLT. English learning background data were collected in section A (2 items). Section B (4 items) was the Target Situation Analysis which assessed real-life clinical use of English in 4 contexts: B1 general clinical use, B2 interprofessional communication, B3 nurse–patient communication, and B4 professional nursing task use. This section puts TSA into action in a similar way to Hutchinson and Waters (1987) and Alharby (2005) and Liu et al. (2023) do in their surveys. All items in Section C (5 items) were based on nurse–patient contexts, interprofessional context and shared importance of pronunciation. The self-competence in professional writing was measured in Section D (4 items). Section E (4 items) considered the quality of existing courses of English. The ESP learning needs and preferences were identified in Section F (5 items). There was one priority checklist (Section G) with a maximum of three options to make. A five-point scale (Strongly Disagree to Strongly Agree) was used with all Likert sections. The overall instrument had a high reliability coefficient ($\alpha = .900$) and Section B had a moderate reliability coefficient ($\alpha = .807$).

3.4 Data Analysis

SPSS software was used to analyze the data. We conducted three paired-samples t-tests for the comparison of the use of TSA items: interprofessional communication use (B2) versus nurse–patient communication use (B3) in order to assess the use of the two items (B2 vs. B3) as the key comparison for RQ1; general clinical requirement (B1) versus nurse–patient use (B3) to see if there was a significant difference between the overall clinical English demand and the specific clinical use; and interprofessional communication (B2) versus professional task use (B4) to determine if there was a significant difference between the two professional-context items (B2 vs. B4). To answer RQ2, the relationships between B2 and B3 individually with Sections C, D, E and F were investigated using Pearson correlation. To answer RQ3, one way ANOVA was used to compare B2 and B3 within the academic level group and the clinical exposure groups. Full response profiles were depicted by computing likert frequency distributions for items B2 and B3.

4. Results

4.1 Section B (TSA): Descriptive Statistics and Likert Distributions

All four items of Section B (TSA) are described in detail in Table 2 and have Likert frequency distributions. The section mean was $M = 3.508$ ($SD = 0.863$), with Section B reliability of $\alpha = .807$. B1: English is often used in my clinical training ($M = 3.899$, $SD = 0.985$) was the highest with 67.7% of the students agreeing or strongly agreeing. This indicates that students in general are aware of English as a general clinical need. The second highest was B2: I use English to communicate with doctors and other health care workers ($M = 3.646$, $SD = 1.053$) which was the interprofessional communication item, with 57.5% agreeing/strongly agreeing and 15.1% disagreeing/strongly disagreeing.

The lowest rated was B3: I use English when communicating with patients or families ($M = 2.889$, $SD = 1.203$) also the lowest rated item for all 24 items on a Likert scale. Of the respondents to B3, 13.1% strongly disagreed while 29.3% disagreed, 22.2% were neutral, 26.3% agreed and only 9.1% strongly agreed. This indicates that 42.4% were "disagreeing" with the use of English between nurses and patients and 35.4% were "agreeing". The mean SD for English use between nurses and patients is relatively high, 1.203, the highest of all the items in this TSA, suggesting that there is a wide range of students' experiences of using English between the nurse and patient, possibly due to the different kinds of wards and the language preferences of patients. This pattern mirrors that which Lu (2018) described in Taiwan, and Khatoon et al. (2019) reported

in Pakistan, where communication through English is structurally marginal despite the relative frequency of interprofessional English communication. In a study conducted by Liu et al. (2023), nurse–patient communication satisfaction in the target context also proved to be highly variable based on the level of communicative competence, in China.

Table 2: Section B (TSA) Item Analysis with Likert Frequency Distributions (N = 99)

Item	Statement	SD n(%)	D n(%)	N n(%)	A n(%)	SA n(%)	M	SD
B1	English is frequently required during my clinical training.	5(5.1)	14(14.1)	13(13.1)	37(37.4)	30(30.3)	3.899	0.985
B2	I use English to communicate with doctors and other healthcare staff.	2(2.0)	13(13.1)	27(27.3)	33(33.3)	24(24.2)	3.646	1.053
B3*	I use English when communicating with patients or their families.	13(13.1)	29(29.3)	22(22.2)	26(26.3)	9(9.1)	2.889	1.203
B4	English is mainly used for professional nursing tasks in my clinical setting.	5(5.1)	18(18.2)	25(25.3)	31(31.3)	20(20.2)	3.596	1.087
Sec. B	Section Mean ($\alpha = .807$)						3.508	0.863

Note. SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree. *B3 is highlighted as the lowest-rated item across the full instrument. α = Cronbach's alpha for Section B only.

4.2 Paired t-Test Results: Nurse–Patient vs. Interprofessional Communication

The three paired-samples t-test results that directly answer the research question (RQ1) are presented in Table 3. The main comparison (B2 versus B3) was highly significant with a $t(98) = 7.242, p < .001$, mean difference of 0.757 points on a 5-point scale. This finding of significantly higher English use in interprofessional communication than in nurse–patient communication was reported by TUF nursing students, thus substantiating the two-tiered nature of this phenomenon statistically. The second comparison (B1 vs. B3) revealed an even greater and more statistically significant difference with a mean difference of 1.010 points ($t(98) = 8.097, p < .001$). This indicates that, although students acknowledge that English is a general clinical requirement (B1; $M = 3.899$), they do not make this known in nurse–patient practice (B3; $M = 2.889$). The gap between the recognized need and practice is similar to that identified by Alharby (2005), who identified that Saudi health professionals knew English was important but admitted that their training for English in college was not sufficient for their needs in the real world. The third comparison (B2 vs. B4) was not significant ($t = 0.547, p = .586$), thus ruling out any significant difference between interprofessional communication and general professional task use in the highest level of clinical English use.

Table 3: Paired-Samples t-Test Results: TSA Communication Context Comparisons (N = 99)

Comparison	M ₁	M ₂	Diff.	t (df=98)	p
B2 (Interprofessional) vs B3 (Nurse–Patient)	3.646	2.889	0.757	7.242	< .001***
B1 (Clinical Requirement) vs B3 (Nurse–Patient)	3.899	2.889	1.010	8.097	< .001***
B2 (Interprofessional) vs B4 (Professional Tasks)	3.646	3.596	0.050	0.547	.586 (n.s.)

Note. M₁ = mean of first variable; M₂ = mean of second variable; Diff. = M₁ – M₂. n.s. = not significant. ***p < .001.

4.3 Pearson Correlation: B2 and B3 with Other Sections

In Table 4, Pearson correlations between each of the TSA items and the four substantive sections are given. Addressing RQ2, a pattern emerged with all sections having higher correlations with B2 (interprofessional communication) than B3 (nurse–patient communication). The most significant correlation was that of B2 with speaking self-competence (Section C); $r = .544$, $p < .001$, this is fairly strong when compared with the B3 – speaking correlation which was $.498$, $p < .001$. The scores of both B2 and B3 were significantly correlated with the speaking competence, which indicates that in all actual clinical English use, speaking confidence is correlated with higher scores. This is to promote the TSA principle of communicative practice in target context leading to self-competence (Hutchinson & Waters, 1987; Liu et al., 2023).

The differences between B2 and B3 seemed to be greatest in Section F (ESP needs and preferences) (B2 had a high significant correlation ($r = .285$, $p = .004$), and B3 had no significant correlation ($r = .093$, $p = .360$)). This leads to students who interact more with interprofessional English communication having a better sense of their ESP learning needs, whereas those who have less interprofessional interaction in English have little insight into their ESP learning needs. The result is in line with the result of Hosseini and Shokrpour (2019) who reported that the students who had experienced the experiential engagement with ESP contexts had higher motivation and self-awareness in health sciences students, and with the result of Benjasirisan et al. (2021) who reported that nurses who had never taken ESP courses were less aware about communication competency needs. The strongest correlation was found between the interprofessional English practice (section E) and B2 ($r = .502$), which could be the case because the students who can communicate more professionally in English are better able to judge the quality of the courses they are being taught on.

Table 4: Pearson Correlations: B2 (Interprofessional) and B3 (Nurse–Patient) with Sections C, D, E, F (N = 99)

Section	r with B2 (Interprofessional)	p	r with B3 (Nurse–Patient)	p
C: Speaking Self-Competence	.544	< .001***	.498	< .001***
D: Writing Self-Competence	.333	.001**	.200	.047*
E: Course Evaluation	.502	< .001***	.292	.003**
F: ESP Needs and Preferences	.285	.004**	.093	.360 (n.s.)

Note. *p < .05, **p < .01, ***p < .001. n.s. = not significant.

4.4 Speaking Competence Items Mapped to Communication Domains

Table 5 shows a map of items from Section C to the clinical communication domains. Three items (C1, C2, C4) are nurse–patient communication items, one of them (C3) interprofessional communication and one of them (C5) both nurse–patient and interprofessional communication items. C1 (I can explain nursing procedures to patients in clear English; $M = 3.465$, $SD = 1.146$) was the lowest mean in the nurse–patient items section, and had the highest standard deviation which indicated a high degree of variability in patients explanation confidence. This reflects the B3 pattern as the nurse–patient domain is less practiced in actual clinical settings and has more variability and a lower level of self-competence than the interprofessional domain. However, C3 (Interprofessional communication: Can participate actively in ward discussion and handovers in English: $M = 3.778$) was rated higher. The two-tier structure is confirmed by this item-level parallelism between Sections B and C, both when it comes to actual use of the two parts and to the self-perceived competence. The top item (C5, pronunciation importance; $M = 4.061$) has been endorsed by both fields, indicating that there is a common understanding that the pronunciation is important in safe nursing care.

Table 5: Section C (Speaking Self-Competence) Items Mapped to Clinical Communication Domains ($N = 99$)

Item	Statement	M	SD	Domain
C1	I can explain nursing procedures to patients in clear English.	3.465	1.146	NP
C2	I can ask and answer questions appropriately during nurse–patient interactions.	3.778	0.864	NP
C3	I can participate actively in ward discussions and handovers in English.	3.778	0.840	IP
C4	I can communicate politely and empathetically with patients in English.	3.687	0.888	NP
C5	Pronunciation and spoken clarity are important for safe patient care.	4.061	0.831	Both
Sec. C	Section Mean	3.754	0.662	—

Note. NP = Nurse–Patient domain; IP = Interprofessional domain. Scale: 1 = Strongly Disagree to 5 = Strongly Agree. Highlighted row (C1) = lowest item in Section C, linked to nurse–patient domain.

4.5 ANOVA: Communication Use by Academic Level and Clinical Exposure

To answer RQ3, the ANOVA results are presented in Table 6, which compares the two between the academic levels. To answer RQ3, the ANOVA results are displayed in Table 6: Two comparisons are made between the two, one between the academic levels. Neither reached significance: B2 yielded $F(4, 94) = 2.262$, $p = .068$, and B3 yielded $F(4, 94) = 1.253$, $p = .294$. This two-tiered structure is, consequently, endemic on all academic levels and is not settled with progress through school. Even those students with the most direct clinical exposure ($n = 17$, 83.8% regular exposure) have B3 means ($M = 3.176$) which are significantly lower than their B2 means ($M = 3.765$). Similarly, ANOVA for clinical exposure groups was not significant for either B2 ($F = 0.367$, $p = .546$) or B3 ($F = 0.076$, $p = .783$). No significant differences were found after the nurses had regular clinical exposure to increase nurses' English use with patients. This aligns with O'Neill (2011) who concluded that the lack of adequate language classroom preparation was a problem for internationally educated nurses in bridging to the clinical communication situation and with Crawford and Candlin (2013) who found that while placement in a clinical setting is

necessary, it is not sufficient to develop clinical communication competence among linguistically diverse nursing students without a targeted language support.

Table 6: One-Way ANOVA: Interprofessional (B2) and Nurse–Patient (B3) Communication Use by Academic Level (N = 99)

Academic Level	n	B2 Interprofessional M (SD)	B3 Nurse– Patient M (SD)	F (B2)	p (B2)	F (B3)	p (B3)
1st Year	5	3.800 (0.837)	3.200 (1.095)	2.262	.068	1.253	.294
2nd Year	6	3.000 (0.632)	2.000 (0.894)				
3rd Year	39	3.385 (1.095)	2.795 (1.165)				
4th Year	32	4.000 (0.919)	2.969 (1.235)				
Internship	17	3.765 (1.033)	3.176 (1.237)				

Note. ANOVA for B2: $F(4,94) = 2.262, p = .068$ (not significant). ANOVA for B3: $F(4,94) = 1.253, p = .294$ (not significant). Neither clinical exposure group comparison was significant (B2: $F = 0.367, p = .546$; B3: $F = 0.076, p = .783$).

4.6 Section G Priority Checklist

Table 7 shows the results of Section G, by domain classification. The top two answers, following pronunciation and spoken fluency (43.4%), were both nurse–patient communication (39.4%) and interprofessional communication (37.4%). The centrality of the use of Clinical English is also illustrated in medical vocabulary (36.4%) and case presentations (30.3%). Writing was the least preferred mode of communication (22.2%), indicating that it is less urgent for clinical than spoken communication. Nearly equal students' selection of nurse–patient or interprofessional communication as explicit priorities is significant: although there is a large statistical difference between the amounts of English students use in the two areas, they consider both equally important areas for students to develop. Liu et al. (2023) argued the importance of using priority checklist methodology in complement to Likert scale TSA, and it is the work of Liu et al. (2023) that has confirmed its value. Shanavas et al. (2024) also reported that, although English language training was not perceived as being sufficient for both patient- and interprofessional English in their current training, nurses clearly indicated a priority for both areas.

Table 7: Section G Priority Checklist with Communication Domain Classification (N = 99; up to three selections)

Rank	Priority Area	n	% of Respondents	Domain
1	Pronunciation and spoken fluency	43	43.4	NP+IP
2	Nurse–patient communication	39	39.4	NP
3	Interprofessional communication	37	37.4	IP
4	Medical vocabulary for nursing practice	36	36.4	Both
5	Case presentations and discussions	30	30.3	IP
6	Clinical documentation (notes, reports)	22	22.2	IP

Note. NP = Nurse–Patient domain; IP = Interprofessional domain. Percentages exceed 100% because respondents could select up to three options.

5. Discussion

5.1 The Two-Tier Structure of Clinical English Use: Confirming and Extending TSA Evidence

The main results of this research are the statistically significant two-level status of the clinical Englishes used at TUF, as the interprofessional clinical English is practiced significantly more than the nurse–patient clinical English ($t = 7.242; p < .001$). This finding addresses RQ1 and validates qualitatively the findings of previous research conducted in various countries using TSA approaches. Liu et al. (2023) conducted a study in China to compare nurses' satisfaction in nurse–

patient communication in the target situation with their overall satisfaction with nurse–patient communication and found the overall clinical communication satisfaction of nurses was significantly higher than the overall nurse–patient communication satisfaction in the target situation when their self-assessed communicative competence was low. Lu (2018) recorded the same phenomenon in Taiwan and Khatoon et al. (2019) and Tajamal et al. (2025) found the same in Pakistan. The present study finds this two tiered organization for the first time statistically in Pakistan through the paired t-tests of the individual items of TSA survey which gives quantitative precision to a pattern gathered qualitatively from the various contexts.

Of special interest is the distribution of B3 on the Likert scale. The level of nurse–patient English is not the norm for most of the TUF nursing students, as 42.4% of the students disagreed or strongly disagreed with the statement, while 35.4% agreed or strongly agreed. The wide SD (1.203) indicates structural variability, with a number of students using English with their patients on a regular basis, and others never doing so, which may relate to different ward environments, supervisor behaviours and patient characteristics. Importantly, neither the ANOVA across academic levels ($p = .294$ for B3) nor the ANOVA across clinical exposure groups ($p = .783$) was significant and thus this gap cannot be explained by the time spent in the programme nor by the clinical placement alone.

A similar conclusion was drawn by O'Neill (2011) who found that internationally educated nurses in Australia were unable to make the transition from the classroom to the clinic without the significant communicative support of targeted activities that went beyond that of the clinical placement itself. Crawford and Candlin (2013) also discovered that the nurses who were linguistically diverse required language interventions rather than just additional clinical time. The present study takes these findings a step further and finds that the gap between English and the native language of the patient is a structural gap, not a clinical exposure gap in the Pakistani context of the private sector health care setting.

5.2 Interprofessional Communication as the Driver of ESP Development

The Pearson correlations report the results for RQ2, and show that significant asymmetries exist between interprofessional communication (B2) and nurse–patient communication (B3); interprofessional communication is a significantly stronger correlate of speaking competence ($r = .544$ vs. $r = .498$), course evaluation ($r = .502$ vs. $r = .292$), and ESP needs ($r = .285$ vs. $r = .093$, n.s.). The lack of significant relationships between B3 and ESP needs implies that students who don't use English with patients very often are not conscious of what is needed in this area, simply because they have not encountered this need. Hosseini and Shokrpour (2019) showed that the experiential engagement in ESP contexts was one of the main motivators and self-aware factors in the health sciences students. In Thailand, Benjasirisan et al. (2021) discovered that nursing students who had not undergone IPE were not as aware of communication as a core competency. This conclusion is backed by the above findings, which suggest that interprofessional communication is where students use English in clinical contexts and is what promotes students' overall ESP awareness and development.

Another interesting correlation coefficient is that B2 –course evaluation ($r = .502$, $p < .001$). Students who have higher degree of interprofessional English communication can better assess the interprofessional English communication provided by their English course, which may be higher degree of metacognition of language development. The findings of Salehi et al. (2024) on systemic organizational factors (role clarity and communication culture) that influence interprofessional practice indicate that the culture of the ward and institutional expectations are as influential on the English communication context at TUF as individual language skills. Such systemic view suggests that for the ESP curriculum reform to take place at TUF, some

interventions should be implemented at the clinical level to provide opportunities for English communication other than CLT instruction in the classroom.

5.3 Domain-Level Parallelism across TSA and Speaking Competence

As the item-level analysis of Section C indicates, the two levels of clinical English use at the TSA level on the whole are reflected in the speaking self-competence as well. The lowest item in Section C was C1, explaining nursing procedures to patients ($M = 3.465$) and the highest item was C3, ward discussions and handovers ($M = 3.778$) which mapped to interprofessional communication. The two-tier gap is not just evident in the situational opportunity, but also in the speaking confidence as reflected in the domain level parallelism between B and C. Similarly, Huang et al. (2022) discovered that the Chinese nurses' engagement strategies in nurse–patient interaction was not as developed as interprofessional communication skills as they had less opportunity to practise the former. Liu et al. (2023) demonstrated that nurses with low communicative competence in nurse–patient contexts had the greatest difference between the demands of the target situation and their satisfaction with the communication.

The SD is very high for C1 ($SD = 1.146$) compared to C3 ($SD = 0.840$) further supporting the interprofessional competence vs nurse–patient competence variation. There is an uneven distribution of nurse–patient English practice opportunities identified in the B3 Likert Distribution Analysis: some students are definitely developing patient-explanation skills while others are not. In India, Shanavas et al. (2024) identified that the clinical context provided inequalities in language opportunities for nurses, with nurses who were working directly with patients having different competencies from those nurses mainly involved in coordinating with other professions. The present data indicate a similar structural differentiation is taking place at TUF.

5.4 Priority Checklist: Students' Explicit Recognition of Both Domains

Although the numbers were very high, the distribution of the Section G results indicated that students felt nurse–patient communication (39.4%) and interprofessional communication (37.4%) were equally important learning needs, despite the fact that there was a large quantitative gap in their personal communication experiences. This almost equal explicit priority for the two domains, the two with vastly different actual levels of use, is a theoretically important result because students can see that the two are of equal importance, even as they have been exposed mainly to interprofessional English in their everyday life. This result is consistent with what Liu and Doss (2026) suggest about the importance of considering student priority data in conjunction with TSA use data to gain a more comprehensive understanding of learning needs. This study also supports the findings from Shanavas et al. (2024) that nurses expressed the ESP needs in both patient and interprofessional areas, despite the lack of training in either of these areas.

In the Section G checklist, students identify speaking as their primary area of need in both contexts of TSA (spoken communication priorities, 43.4%; nurse–patient communication, 39.4%; interprofessional communication, 37.4%), reinforcing the results of the Section G item in the survey, which also showed speaking as the most important mode of communication. This is in line with the results of Alharby (2005) who reported that Saudi health professionals reported that productive skills (speaking and writing) were prioritized almost equally as much as receptive skills (reading and listening), and with the results of Khatoon et al. (2019) and Sattar et al. (2026) who both found that speaking for clinical communication was the top priority for Pakistani health sciences students' ESP priority lists.

5.5 Implications for ESP Curriculum at TUF

TSA evidence (B3 lowest), competence evidence (C1 lowest in Section C), correlation evidence (B3 unrelated to ESP needs), and ANOVA evidence (gap stable across years) all support a convincing and coherent argument to urgently intervene with curriculum in TSA based on CLT, specifically with regard to nurse–patient communication in English. Based on the TSA, Liu et al. (2023) proposed a four-step EMP teaching model which is directly applicable to the TUF context and has the following steps: (1) students observe the target situation communication, (2) students analyze the linguistic features of the communication, (3) students practice communication with CLT-based activities, and (4) students assess their own communication. Liu and Doss (2026) demonstrated that using AI to assist in TBNA can pinpoint the particular purpose tasks that are most pertinent for nurse–patient communication and design a syllabus much more precisely than traditional general needs analysis. The methods suggested should be modified for the nursing ESP programme at TUF.

In particular, the present findings suggest the following curriculum actions. First of all, systematically, nurse–patient communication scenarios should be systematically embedded in each nursing year starting from the first year, based on the CLT principles as shown in Febrijanto and Kurniajati (2017), and Mulyadi et al. (2025). Second, training in interprofessional communication, on top of the simulation-based model of IPE validated by Liaw et al. (2014) which was used in this study, should also be reinforced; this can be done by interprofessional simulated ward rounds, interprofessional handover practice and interprofessional case presentation activities. Third, the difference between the nurse and the patient is the same at all academic levels, and cannot be bridged by clinical experiences; therefore, the classroom ESP instruction should be able to bridge the gap between the nurse and patient in order to get rid of the lack of clinical ESP practice. Fourth, nursing students need to have structured English communication opportunities in the clinical setting, which should be supplemented to the classroom instruction in patient-oriented settings, with the involvement of clinical supervisors and ward preceptors.

6. Conclusion

In this study the two tier structure of clinical English use of 99 female undergraduate nursing students at TUF, Pakistan has been identified and quantitatively confirmed. There is significant difference between the level of practice of interprofessional communication in English ($M = 3.646$), and nurse–patient communication ($M = 2.889$; $t = 7.242$, $p < .001$). The difference between the general clinical English requirement (B1; $M = 3.899$) and the use of English in nurse–patient communication is even greater ($t = 8.097$, $p < .001$). The difference between interprofessional communication and professional task use is not significant ($p = .586$), making the two a cohesive top-level of clinical English practice. This is not a problem that is addressed through clinical exposure and is stable across academic levels, thus demonstrating that it is a structural curriculum issue that needs intentional intervention.

The following are the answers to the three research questions. The results are in support of the first research question: There is a significant difference between the use of nurse–patient communication and interprofessional communication, a difference in which interprofessional communication clearly is on a higher level ($t = 7.242$, $p < .001$). RQ2 is answered: interprofessional communication is more strongly correlated with speaking competence ($r = .544$), course evaluation ($r = .502$), and ESP needs ($r = .285$) than nurse–patient communication; nurse–patient use is not correlated with ESP needs articulation ($r = .093$, n.s.), indicating a lack of metacognitive awareness. RQ3 is supported: There is little variation of the two-tier gap across academic levels and across clinical exposure groups, thus further supporting the structural stability of the two-tier gap.

The results can be applied directly to ESP curriculum design in TUF and other institutions in Pakistan. Nurse–patient communication is a unique and priority course component, and must be addressed via role-play based on CLT, patient simulation, and the design of the syllabus must be followed based on the models that have been validated by Liu et al. (2023), Liu and Doss (2026). The training of IPE should be reinforced by simulation-based IPE as per the approach of Liaw et al. (2014). Clinical supervisors need to be involved as partners in developing opportunities for English communication in the patient-focused ward, as the classroom cannot replace these structural gaps in nurse–patient English practice. This study is limited in a number of ways. Sample is restricted to one Private Sector University and students are female only. Self-reports were used to assess TSA, which may lead to response bias. The nurse–patient versus interprofessional English use gap in Pakistani nursing education could be further explored by future research through the use of observational methods of Huang et al. (2022), incorporation of multi-institutional sampling and male nursing student participants.

References

- Alharby, M. (2005). *ESP target situation needs analysis: The English language communicative needs as perceived by health professionals in the Riyadh area* [Doctoral dissertation]. Indiana University of Pennsylvania.
- Benjasirisan, C., Phianhasin, L., Ruksakulpiwat, S., Sanaha, C., Boontein, P., Sriprasong, S., & Puwarawuttipanit, W. (2021). The preparation for interprofessional practice (IPP) in nursing students at Mahidol University, Thailand: The situation analysis. *Siriraj Medical Journal*, 73(2), 128–140.
- Carmack, H. J., & Harville, K. L. (2020). Including communication in the nursing classroom: A content analysis of communication competence and interprofessional communication in nursing fundamentals textbooks. *Health Communication*, 35(13), 1656–1665.
- Choi, L. J. (2021). Implementing English for Medical Purposes (EMP) in South Korea: Nursing students' ongoing needs analysis. *Nurse Education Today*, 104, 104989.
- Coifman, A. H. M., Pedreira, L. C., Jesus, A. P. S. D., & Batista, R. E. A. (2021). Interprofessional communication in an emergency care unit: A case study. *Revista da Escola de Enfermagem da USP*, 55, e03781.
- Crawford, T., & Candlin, S. (2013). Investigating the language needs of culturally and linguistically diverse nursing students to assist their completion of the bachelor of nursing programme to become safe and effective practitioners. *Nurse Education Today*, 33(8), 796–801.
- Farahian, M., & Rajabi, Y. (2022). Quality of ESP courses for nursing students: Expectations and challenges. *Future of Medical Education Journal*, 12(2).
- Febrijanto, Y., & Kristanti, E. E. (2026). Enhancing professional nursing competence through ESP and portfolio-based learning: A quantitative study. *Pedagogic Research-Applied Literacy Journal*, 3(2), 74–83.
- Febrijanto, Y., & Kurniajati, S. (2017). Developing ESP nursing based on communicative language teaching. *English Education: Journal of English Teaching and Research*, 2(2), 62–37.
- Finch, A. (2014). Caring in English: ESP for nurses. *International Journal of English Language Teaching*, 1(1), 1–10.
- Gass, J. (2012). Needs analysis and situational analysis: Designing an ESP curriculum for Thai nurses. *English for Specific Purposes World*, 12(36), 1–21.
- Hosseini, A., & Shokrpour, N. (2019). Exploring motivating factors among Iranian medical and nursing ESP language learners. *Cogent Arts & Humanities*, 6(1), 1634324.

- Huang, Q. (2025). A major change for ESP for nursing: Pivoting towards discourse through a new course design with communicative engagement as a focal concept. *Language Teaching Research*. <https://doi.org/10.1177/13621688251313653>
- Huang, Q., & Yu, Q. J. (2023). Towards a communication-focused ESP course for nursing students in building partnership with patients: A needs analysis. *English for Specific Purposes*, 70, 57–69.
- Huang, Q., Pun, J., & Huang, S. (2022). Using a mixed-methods needs analysis to ensure the sustainability and success of English for nursing communication courses: Improving nurse-patient engagement practices in globalized health care. *Sustainability*, 14(21), 14077.
- Hutchinson, T., & Waters, A. (1987). *English for specific purposes: A learning-centred approach*. Cambridge University Press.
- Jayarathna, A. K. S., Wanasooriya, W. M. K. C., Senarathne, D. D. H. G. Y., de Silva, B. D. S. V. U., Jayasinghe, D. R. W., George, L. V., & Wijesekera, H. D. (2025). ESP needs analysis for nursing students at a Sri Lankan higher education institution. Unpublished manuscript.
- Jubhari, Y., Rosmiaty, R., & Nurliah, N. (2022). Needs analysis in English for Specific Purposes (ESP) for nursing students. *Education, Language and Culture Journal*, 2(1), 80–86.
- Kanwal, A., Fatima, M., Bibi, A., Sonia, & Khan, M. A. (2026). English for nursing practice: CLT-oriented ESP needs, self-competence, and curriculum gaps among undergraduate nursing students in Pakistan. *Journal of Applied Linguistics and TESOL (JALT)*, 9(2), 401–418. <https://doi.org/10.63878/jalt2233>
- Khatoon, K., Zaidi, S. H., & Nasim, A. (2019). ESP: Analyzing communicative needs of nursing students in clinical setting. *International Journal of Linguistics, Literature and Translation*, 2(5), 33–41.
- Liaw, S. Y., Zhou, W. T., Lau, T. C., Siau, C., & Chan, S. W. C. (2014). An interprofessional communication training using simulation to enhance safe care for a deteriorating patient. *Nurse Education Today*, 34(2), 259–264.
- Liu, J., Cai, J., Guo, S., & Yang, X. (2023). Improving Chinese nursing undergraduates' nurse-patient clinical communication competence in English: A study based on a target situation needs analysis. *Heliyon*, 9(10).
- Liu, Y., & Doss, C. Y. (2026). Using AI in task-based needs analysis for nurse-patient English course design: A case study to improve methodological effectiveness. *Humanities and Social Sciences Communications*.
- Lu, Y. L. (2018). What do nurses say about their English language needs for patient care and their ESP coursework: The case of Taiwanese nurses. *English for Specific Purposes*, 50, 116–129.
- Marleni, L., Syarif, H., & Zainil, Y. (2023). ESP for nurse: A curriculum analysis. *Journal of Education Research*, 4(4), 2452–2460.
- Mazdayasna, G., & Tahririan, M. H. (2008). Developing a profile of the ESP needs of Iranian students: The case of students of nursing and midwifery. *Journal of English for Academic Purposes*, 7(4), 277–289.
- Mulyadi, D., Wijayatiningsih, T. D., Hartiti, T., & Singh, C. K. S. (2025). Bridging language and nursing proficiency: Technology-enhanced TBLT integrated into CLIL in ESP instruction. *Studies in English Language and Education*, 12(3), 1153–1170.
- Nurakhir, A. (2018). Exploring ESP needs of undergraduate nursing students in a university in Indonesia. *Advances in Social Sciences Research Journal*, 5(7).
- O'Neill, F. (2011). From language classroom to clinical context: The role of language and culture in communication for nurses using English as a second language: A thematic analysis. *International Journal of Nursing Studies*, 48(9), 1120–1128.

- Pinelli, V. A., Papp, K. K., & Gonzalo, J. D. (2015). Interprofessional communication patterns during patient discharges: A social network analysis. *Journal of General Internal Medicine*, 30(9), 1299–1306.
- Pun, J. (2023). Developing an ESP workshop to promote handover practices in nursing communication: A case study of nurses in a bilingual hospital in Hong Kong. *English for Specific Purposes*, 71, 123–138.
- Riaz, E., Zahra, R., Nawaz, S., & Khan, M. A. (2026). The curriculum gap in allied health English education: A programme-differentiated analysis of ESP necessity, instructional lack, and learning demand among Pakistani health sciences students. *Journal of Applied Linguistics and TESOL (JALT)*, 9(2), 68–86.
- Sadia, T., Hassan, I., Nawaz, S., & Khan, M. A. (2026). Necessities, lacks, and wants in allied health education: An ESP needs analysis of English language learning priorities among Pakistani health sciences students. *ASSAJ*, 5(2), 223–240.
- Salehi, R., Masoudi-Asl, I., Gorji, H. A., & Gharaee, H. (2024). Gap analysis of strategies for promoting interprofessional teams in healthcare units. *Journal of Health Organization and Management*, 38(6), 857–887.
- Saragih, E. (2014). Designing ESP materials for nursing students based on needs analysis. *International Journal of Linguistics*, 6(4), 59–70.
- Sattar, I., Riaz, A., Nazir, Z., Aslam, M., & Khan, M. A. (2026). Proficiency, necessity, lack, and want: An ESP needs analysis of English language requirements among final-year DPT students at Government College University Faisalabad, Pakistan. *Journal of Applied Linguistics and TESOL (JALT)*, 9(2), 283–292.
- Shanavas, S. P., Singh, S., & Vargheese, K. J. (2024). Negotiating hierarchy: A critical perspective on English for specific purposes in healthcare. *Journal of Teaching English for Specific and Academic Purposes*, 455–470.
- Susmini, S., & Episiyasi, E. (2021). Nursing students' perception to the necessity of English for Specific Purposes (ESP) course. *Jurnal Perspektif Pendidikan*, 15(1), 13–22.
- Tajamal, T., Kalim, S., & Meher, F. (2025). Needs analysis using ESP approach: A perception of nursing students and other stakeholders in Pakistan. *Journal of Arts and Linguistics Studies*, 3(1), 1–35.