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Does Learning English Contribute to Ensuring Patient Safety? Egyptian Cardiac Nurses Perceptions

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ABSTRACT

Background: The effect of English is indisputable in the profession of nursing, where English is increasingly becoming the medium of instruction and communication. Therefore, the principal goal of the study was to examine the perceptions of Egyptian nurses in reference to the English language effect on patient safety.
Purpose: The study was implemented in a cardiothoracic Centre that provides free-of-charge care for patients with heart diseases.
Design and methods: In this pursuit, a mixed-method approach was employed as two data collection instruments were constructed and utilized following the review of literature and based on the patient international safety goals recommended by the Joint Commission International (JCI). The first instrument is a 39-item questionnaire and the second is a semi-structured interview. The number of nurses participated in the study was (n=94); 86 nurses participated in the questionnaire whereas eight expert nurses were recruited for the semi-structured interview.
Results: The results revealed that the English language is an essential element in the process of ensuring patient safety for Egyptian nurses and its effect is revealed through the international safety goals. Based on the study, nurses are advised to be proficient in using the English language so as to provide the best possible care for cardiac patients.

Keywords: English and patient safety, Patient safety goals and English, English and professional nursing, English and cardiac care

Introduction

The influence of English in this age is undeniable in all scientific and academic domains. Engrained in English for Specific Purposes (ESP) is English for Medical Purposes (EMP). The Emergence of EMP was powerful in the early twentieth century following the disappearance of Latin as a lingua franca and the emergence of a few national languages such as French and German for scientific research (Ferguson, 2012). English, then, excelled at the expense of German and French in medical publications and research. Nowadays, many universities around the world offer their students EMP courses so as to enable them to be proficient practitioners in the field of medicine and increase their global competitiveness (Choi, 2021).

Healthcare provision is becoming more complicated in today's world and requires adaptation and dynamism from healthcare providers (Slawomirski et al., 2018). Yet, unsafe care-related adverse events are probably among the top ten global causes of mortality and disability (Patient Safety, 2019). Therefore, equipping caregivers with the appropriate and outcome-oriented professional development would eventually lead to the improvement of

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care provided to the patient. In this respect, Continuous Professional Development (CPD) referred to as a "combination of formal continuing medical education and other types of activities designed to help healthcare professionals acquire knowledge and skills necessary for professional growth" is substantial in any healthcare setting and directly influences the practice of clinicians, the patients and the system (Sherman & Chappell, 2018, p. 1).

The World Health Organization (WHO) defined patient safety as "a framework of organized activities that creates cultures, processes, procedures, behaviours, technologies and environments in health care that consistently and sustainably lower risks, reduce the occurrence of avoidable harm, make errors less likely and reduce the impact of harm when it does occur." (Patient Safety, 2019). Moreover, Eldridge and Revere (2005) listed a few patient safety goals to which nurses and doctors should adhere: patient identification, effective communication, administration of medication, effectiveness of clinical alarm systems, elimination of errors in procedures, patients' risk of fall and healthcare-associated infections. Ismail and Nasir (2017) also identified the components of patient safety: policies, diagnosis, medication, surgery and infection injury. They added that the effective evaluation of patient safety in medical departments is made possible by establishing the elements of patient safety. To clarify, effective evaluation of patient safety offers the framework required to achieve the highest possible level of patient safety. Additionally, similar sections were recommended and suggested by the Joint Commission International (JCI) which is a global leading organization for healthcare quality and patient safety (International Patient Safety Goals, 2023). These sections included: patient identification, effective communication, high-alert medications, surgery and intervention, care-associated infections and finally risk of fall.

The improvement of patients' health and quality of life is the focus of medical professionals' careers, and they advance their own professional growth by attending international conferences, reading journals, and discussing their own discoveries with colleagues if they are competent in English (Staley et al., 2020). Indicated by Farrokh Eslamloo et al. (2021) that effective knowledge transfer could be facilitated by adequate English language skills and use of grammar for medical professionals. Also, A safer and more effective way to conduct nursing care is through highlighting transcultural interpersonal communication techniques (Larsen et al., 2021). In this respect, improved communication and cultural understanding is critical to raising the standard of healthcare provided to the patient (Alshammari et al., 2019). Similarly stated Staley et al. (2020) that Working with medical professionals to improve their English proficiency empowers them to interact with, diagnose, and treat patients more precisely.

Although, there are not enough references in extant literature that address the relationship between learning English and patient safety in a cardiothoracic setting, a few studies explored certain aspects of patient safety. Jacobs et al. (2006), for instance, stressed the importance of carrying out research on English language obstacles and barriers in the medical domain. Bradshaw et al. (2007) explored the relationship between Limited English Proficiency (LEP) and medication prescription in pharmacies in the United States of America. Whitehead et al. (2012) investigated the quality of some websites offering advice on the risk of fall for old people using the English language. Narayan (2013) explored the English language barriers with regard to patient-doctor communication in India. Boylen et al. (2020) investigated the effect of professional interpreters on hospitalized migrant refugees' children with LEP. Stolarski et al. (2022) investigated the effect of English proficiency on outcome following bariatric surgery. Finally, Schwartz et al. (2022) explored the association between LEP and the frequency of pain assessment for trauma patients. According to the author's knowledge, the aforementioned previous studies addressed the effect of English language proficiency on the side of the patient, not the caregivers.

However, to the author's knowledge, no prior research has examined how the English language influences patient safety in clinical settings. That is why, the current study discloses the perceptions of Egyptian nurses with regard to the contribution of English proficiency to patient safety in the context of a cardiothoracic Centre. It attempts to answer the following questions:

Research Question 1: To what extent does English help maintain patient safety in a cardiac care setting for Egyptian nurses?

Research Question 2: How does English contribute to enhancing patient safety for Egyptian nurses?.

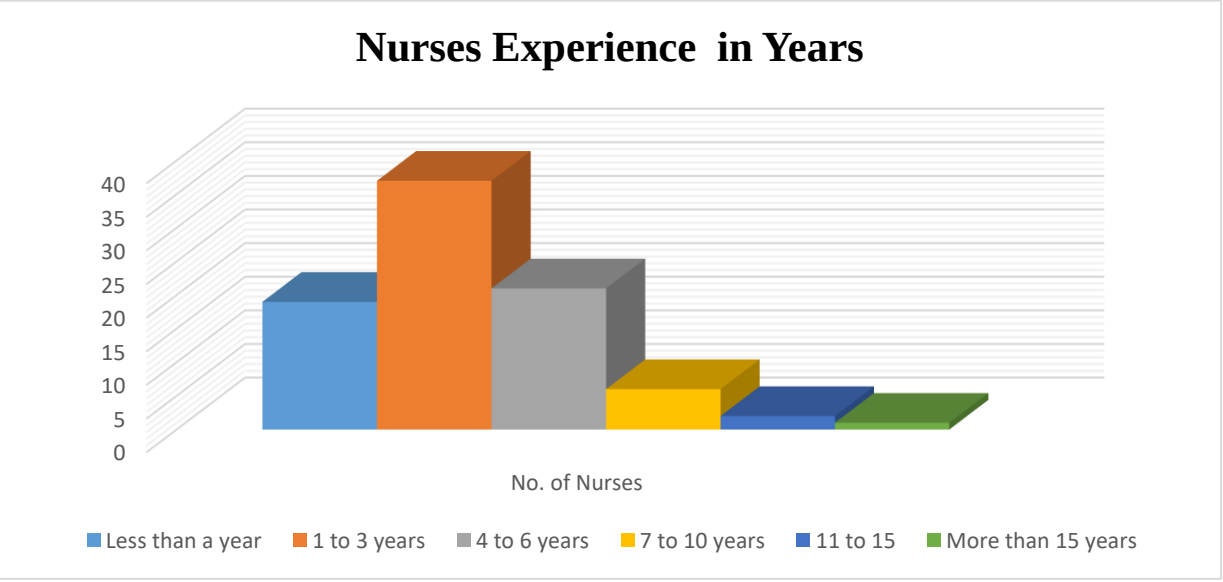
Methods

The methodology part discusses the design of the study, the participants, the methods of data collection and analysis, and the statistical procedures applied. The study employed a mixed method approach, quantitative and qualitative since two data collection tools were utilized, a questionnaire and a semi-structured interview. It, as well, tends to explore the perceptions of people regarding the magnitude of the English language in ensuring patient safety in a cardiac care setting.

The number of questionnaire participants in the study was (n=98). Twelve participants were removed from the list due to their contradictory and inconsistent responses. Out of the remaining 86 participants, there were 42 male nurses and 44 female nurses. In terms of age, 30 nurses were between 26 and 40 years old whereas 56 nurses were between 18 and 25 years old. As for the participants' nursing experience in years, 19 nurses had less than a year of experience, 37 participants had from 1 to 3 years of experience, 21 participants had from 4 to 6 years of experience, 6 nurses had from 7 to 10 years of experience, 2 nurses had from 11 to 15 years of experience and only one had more than 15 years of experience (see Figure 1).

Figure 1

Participants' Nursing Experience in Years



In respect to learning English academically at school, six nurses stated that they learned English academically from 4 to 6 years, 14 nurses confirmed that they learned English from 7 to 10 years, 31 nurses stated that they learned English from 11 to 15 years and finally 35 stated that they learned English academically for more than 15 years. Additionally, 21 nurses

stated that they learned English professionally (at work) for less than a year. 52 nurses stated that they studied English professionally from 1 to 3 years, 10 nurses confirmed that they learned English professionally from 4 to 6 years and finally three nurses stated that they learned English professionally for more than 6 years.

Two data collection tools were constructed and utilized in the study, a questionnaire, and a semi-structured interview. The questionnaire consisted of 39 items. The first five items were asking for demographic information whereas the remaining 34 items were asking about the English language in relation to seven sections: patient identification (five questions), effective communication (eight questions), medications (six questions), surgery and intervention (four questions), care-associated infections (four questions), risk of fall (three questions) and finally four direct questions to participants (see Appendix A). The questions in every section, apart from the demographic information questions, varied from a 3-point Likert scale (Yes – Maybe – No) asking about facts and a 5-point Likert scale (Strongly agree – Agree – Neutral – Disagree – Strongly disagree) asking for participants' opinions. Items 5, 9, 18, 23, 27, 29, 30, 32, 33, 34 used the 5-point Likert scale whereas the rest of the questions used the 3-point Likert scale. The questionnaire was constructed following reviewing literature on patient safety, medical English and professional development for nurses. It was piloted over five expert nurse educators, translated to avoid any misinterpretation and misconception of the items and modified prior to its dissemination to the nurses. It was administered through a link to a google form where participants had to select their answers comfortably using their smartphones or laptops.

The semi-structured interview was conducted with a subset of expert nurses (n=8), five male and three female nurses, in a safe, comfortable room where they could express their opinions freely without any kind of peer or superiors' pressure. The interview consisted of three questions. The first question was concerned with whether learning English directly contributes to patient safety or not. Respondents had three options to answer this question: yes, maybe and no. The second question provided choices to respondents and required explanation for every choice. It asks about the sections of patient safety and the way English contributes to enhancing them if possible. The third question gives the floor for the interviewees to add any extra information regarding the topic of the study. While asking the interviewees, the author took notes of their answers.

The questions were printed on a white paper for the respondents so that they could see the questions to avoid any misinterpretation and to see the choices in the first two questions. For confidentiality and ethical considerations, nurses' names were replaced with "Ex" which refers to expert, "M" or "F" refers to male or female and finally "N" refers to the word nurse. An expert female nurse number one, for instance is given the name of "EXFN1" and an expert male nurse two is given the name of "EXMN2". All interviewees were recruited from the cardiac care Centre at which the author works as an EFL and ESP instructor. While there is a risk of bias and subjectivity due to the author's close relationship with the participants, the insider perspectives gained through the relationship balanced the limitation.

The statistical Package for Social Sciences program (SPSS) was used to perform the following statistical treatments:

- Participants responses in percentages towards the items included in the questionnaire.
- Arithmetic mean rank to identify the weight of responses towards the questionnaire items.
- Pearson Correlation (r) to ensure the validity of the questionnaire items.
- Cronbach's alpha coefficient (α) to measure the reliability of the study's questionnaire.

In order to facilitate the interpretation of the results, the researcher used the category length method to determine the level of responses to the questionnaire items, where weight was given to the responses. Accordingly, for the 3-point items, (Yes) takes number 3, (Maybe) takes number 2 and (No) takes number 1. Then, the answers were divided into three levels of equal range through the following equation to obtain an estimated scale according to the 3-point Likert scale (see Table 1).

$$Category\ length\ = \frac{(largest\ value - least\ value)}{number\ of\ tool\ alternatives}$$

Table 1
Category Length of the 3-point Likert Scale Questionnaire Items

Response	Value	Class boundaries		Direction of the Study Sample Responses
		From	To	
No	1	1	1.66	low
Maybe	2	1.67	2.33	Middle
Yes	3	2.34	3	High

The same processes applied previously on the 3-point Likert scale items mean score have been implemented by the SPSS program on the 5-point Likert scale items mean score of the questionnaire. These tests included: participants responses in percentages, the mean rank of every item, Pearson correlation for validity purposes and Cronbach's alpha coefficient for reliability purposes. Table two demonstrates the category length of the 5-point Likert scale questionnaire items.

Table 2
Category Length of the 5-point Likert Scale Questionnaire Items

Response	Value	Class Boundaries		Direction of the Study Sample Responses
		From	To	
Strongly disagree	1	1	1.79	very low
Disagree	2	1.80	2.59	low
Neutral	3	2.60	3.39	Medium
Agreed	4	3.40	4.19	high
Strongly agree	5	4.20	5	Too high

Tables three and four present the results of each of the questionnaire items Pearson correlation for the 3-point items and the 5-point items. Table three is concerned with the 3-point items whereas table four demonstrates the 5-point items.

To ensure the validity and the reliability of the 3-point Likert scale part of the questionnaire, Pearson correlation and Cronbach Alpha tests were conducted. In terms of the correlation test, all items were significant at the ($P \leq 0.01$) level and 1, 8, 19 were significant at the ($P \leq 0.05$) level. Moreover, the reliability test of Cronbach Alpha for the 24 items of the 3-point scale part of the questionnaire was ($\alpha = .71$) which means that the items are highly reliable and applicable.

Table 3
A 3-point Likert Scale Pearson Correlation

Item	Correlation	Item	Correlation	Item	Correlation
1	.250*	**11**	.572**	**21**	.480**
2	.451**	**12**	.441**	**22**	.507**
3	0.159	**13**	.414**	**23**	.453**
4	.407**	**14**	.338**	**24**	.422**
6	.058**	**15**	.289**	**25**	.619**
7	.319**	**16**	.222*	**26**	.474**
8	.271*	**17**	.334**	**28**	.258**
10	.573**	**19**	.248*	**31**	.394**

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Table 4
A 5-point Likert Scale Pearson Correlation

Item	Correlation	Item	Correlation
5	.571**	**29**	.746**
9	.695**	**30**	.830**
18	.713**	**32**	.776**
23	.805**	**33**	.696**
27	.827**	**34**	.372**

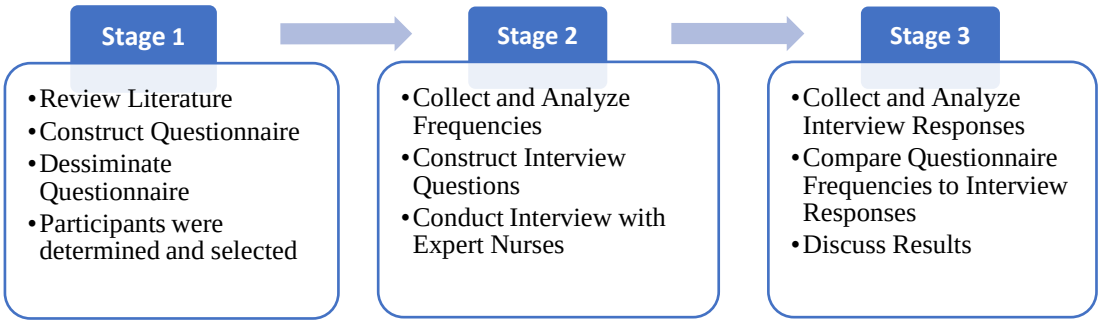
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

With regard to the 5-point Likert scale items of the questionnaire, Pearson Correlation and Cronbach Alpha tests were, in addition, conducted. In terms of the correlation test, all items were significant at the ($P \leq 0.01$) level and none were significant at the ($P \leq 0.05$) level. Moreover, the reliability test of Cronbach Alpha for the 10 items of the 5-point scale part of the questionnaire was ($\alpha = .80$) which means that the items are highly reliable and applicable as similar to the previous part.

In analyzing the interview responses, the data were taken in the form of full notes, tabulated and coded for thematic analysis. The codes included the patient safety goals: patient identification, effective communication, high-alert medications, surgery and intervention, care-associated infection bundles and finally patient risk of fall. Extracts uttered by the interviewees were included and explained for credibility and confirmability.

The Author followed certain stages in order to conduct the study and gain accurate results (see Figure 2). The following are the stages and the procedures implemented by the author:

Figure 2
Stages of the Study



1) Reviewing literature was the first step so as to gain knowledge about patient safety, professional development for nurses and finally medical English and its effect in the field of nursing.
2) Based on the literature review findings, a questionnaire was constructed, translated and piloted carefully as some items asked about existing facts whereas other items requested the opinions of participants.
3) Participants were selected to answer the questionnaire items. They were working at a cardiac Centre in Aswan which is a city in the south of Egypt.
4) The questionnaire answers were collected, and the frequencies were analyzed through the Statistical Package for Social Sciences (SPSS).
5) The questionnaire was installed on a google form and administered through a link that was shared with the nurses through a WhatsApp group. It was left open to accepting the responses for a week. Moreover, a reminder to finish the questionnaire was sent to the nurses every day.
6) The settings of the google form were adjusted to accept only one response for every participant and not to show the results of the questionnaire for the other participants as it may affect their opinions, therefore the questionnaire results may tend to be biased eventually.
7) For data triangulation, the author formulated interview questions to be conducted with expert nurses at the cardiac Centre.
8) The interview responses were collected, coded, and sorted out under certain themes.
9) The findings of the questionnaire were compared to the interview responses to confirm the results.
10) Finally, the results of both instruments were discussed to draw the study's conclusion.

Findings & Discussion

This part presents the results of the data collected by the author through the questionnaire and the semi-structured interview. The questionnaire frequencies are presented first then followed by the interview responses findings.

Questionnaire Frequencies

Tables 5 and 6 demonstrate the data collected regarding the facts of English and patients Safety in terms of patient identification, effective communication, high-alert medications, surgery and intervention, care-associated infections and risk of falls. On the other hand, table

7 presents the opinions of nurses regarding the utilization of English to ensure patient safety with reference to the patient safety goals.

Table 5 ***Responses on Facts about English and Patients Safety Regarding Patient Identification, Effective Communication and High-Alert Medications***

No	Statements	Value	Yes	Maybe	No	Mean Rank	Direction
(1)	Most patient personal information is written in English (e.g., DOB, Place of Residency etc)	No.	81	5	0	2.94	High
		%	94.19	5.81	0.00		
(2)	As a healthcare provider, I read, write and say patients' personal information in English	No.	65	15	6	2.69	High
		%	75.58	17.44	6.98		
(3)	All documented information regarding patients' personal and family medical history are written in English.	No.	80	4	2	2.91	High
		%	93.02	4.65	2.33		
(4)	As a healthcare provider, I read and write medical reports on patients in English (e.g., Nursing notes, Diagnosis reports).	No.	83	2	1	2.95	High
		%	96.51	2.33	1.16		
(6)	I use English to communicate with foreign patients, visiting doctors and nurses as it is a universal language.	No.	78	7	1	2.90	High
		%	90.70	8.14	1.16		
(7)	I read and use patients' checklists that are written in English.	No.	81	5	0	2.94	High
		%	94.19	5.81	0.00		
(8)	Accurate and effective communication in English with foreign patients guarantees their safety.	No.	83	2	1	2.95	High
		%	96.51	2.33	1.16		
(10)	In my unit, we articulate most of the healthcare providers' roles and tasks in English.	No.	62	19	5	2.66	High
		%	72.09	22.09	5.81	2.80	
(11)	In my unit, we hand over the patient in English or use medical English termi1logies.	No.	72	11	3		High
		%	83.72	12.79	3.49		
(12)	Doctors' orders are articulated or written in English.	No.	74	8	4	2.81	High
		%	86.05	9.30	4.65		
(13)	Doctors' round discussions regarding the patients' treatment plans or diag1ses are always conducted in English.	No.	61	24	1	2.70	High
		%	70.93	27.91	1.16		
(14)	The medication package insert is written in both English and Arabic most of the time.	No	63	10	13	2.58	High
		%	73.26	11.63	15.12		
(15)	I educate myself about the medications (e.g., Usage, Side effects) I use with patients in English.	No.	82	4	0	2.95	High
		%	95.35	4.65	0.00		
(16)	I use trusted websites to learn about medications in English.	No.	83	2	1	2.95	High
		%	96.51	2.33	1.16		
(17)	Medications administration policies and procedures for the quality of patient care are written in English.	No.	80	6	0	2.93	High
		%	93.02	6.98	0.00		
(19)	Learning English minimizes medication errors.	No.	77	7	2	2.87	High
		%	89.53	8.14	2.33		

In table 5, 81 nurses, representing 94.19%, agreed that most patient personal information is written in English (e.g., DOB, Place of Residency etc.). 65 nurses constituting 75.58%, confirmed reading, writing and saying patients' personal information in English, and 80 nurses (93.02%) agreed that all documented information regarding patients' personal and family medical history are written in English. 83 nurses comprising 96.51% confirmed reading and writing medical reports on patients in English (e.g., Nursing notes, Diagnostic reports). As for using English to communicate with foreign patients, visiting doctors and nurses as it is a universal language, 78 respondents, representing 90.70% confirmed doing that and 81 (94.19%) stated that they read and use patients' checklists that are written in English. Also, 83 respondents constituting 96.51% approved that accurate and effective communication in English with foreign patients guarantees their safety. 62 nurses (72.09%) agreed that they articulate most of the healthcare providers' roles and tasks in English in their units.

Furthermore, 72 nurses (83.72%) approved that they hand over the patient in English or use medical English terminologies. Also, 74 nurses (86.05%) agreed that doctors' orders are articulated or written in English. 61 nurses comprising (70.93%) indicated that doctors round discussions regarding the patients' treatment plans or diagnoses are always conducted in English. Additionally,63 nurses representing 73.26% approved that the medication package insert is written in both English and Arabic most of the time. 82 nurses (95.35%) stated that they educate themselves about the medications (e.g., Usage, Side effects) they use with patients in English and 83 nurses (96.51%) agreed that using trusted websites to learn about medications in English. As for medications administration policies and procedures for the quality of patient care, 80 nurses (93.02%) stated they are written in English.

Table 6 ***Responses on Facts about English and Patients Safety Concerning Surgery and Intervention, Care-Associated Infections and Risk of Falls Subsections***

No	Statements	Value	Yes	Maybe	No	Mean Rank	Direction
(19)	Learning English minimizes medication errors.	No.	77	7	2	2.87	High
		%	89.53	8.14	2.33		
(20)	The World Health Organization (WHO) guidelines regarding the patient's safety are all written in English and translated to other languages such as Arabic.	No.	78	5	3	2.87	High.
		%	90.70	5.81	3.49		
(21)	The WHO Safety checklist is written in English (Sign in – Time out – Sign out) and translated to other languages like Arabic.	No.	78	4	4	2.86	High.
		%	90.70	4.65	4.65		
(22)	The WHO checklist confirms the identity of the patient, the roles of the intervention team and everything concerning the procedure in English because there are foreign visiting doctors and nurses.	No.	78	7	1	2.90	High.
		%	90.70	8.14	1.16		
(24)	Most of the care bundles procedures (VAP, Sepsis, PVC, CVC) guidelines are written in English.	No.	80	6	0	2.93	High.
		%	93.02	6.98	0.00		
(25)	Most of the Centre of Disease Control and Prevention (CDC) guidelines are written in English and translated to other languages.	No.	78	8	0	2.91	High.
		%	90.70	9.30	0.00		
(26)		No.	77	9	0	2.90	High.

No	Statements	Value	Yes	Maybe	No	Mean Rank	Direction
	All instructional materials released from the WHO or the CDC regarding the patient safety are written in English.	%	89.53	10.47	0.00		
(28)	Risk of fall WHO guidelines are written in English.	No.	80	6	0	2.93	High.
		%	93.02	6.98	0.00		
(31)	All hospital signs and instructional materials about patients' safety are written in English (e.g., Fire instructions, radiology instructions, patients' bracelets and warning codes).	No.	49	23	14	2.41	High
		%	56.98	26.74	16.28		

In table 6, 77 nurses (89.53%) approved that learning English minimizes medication errors. Also 78 nurses (90.70%) agreed that The World Health Organization (WHO) guidelines regarding the patient's safety are all written in English and translated to other languages such as Arabic. The same number agreed that the WHO safety checklist is written in English (Sign in – Time out – Sign out) and translated to other languages like Arabic. 78 nurses comprising 90.70% agreed that the WHO checklist confirms the identity of the patient, the roles of the intervention team and everything concerning the procedure in English because there are foreign visiting doctors and nurses and 80 nurses constituting 93.02% stated that most of the care bundles procedures (VAP, Sepsis, PVC, CVC) guidelines are written in English. Regarding the item of the Centre of Disease Control and Prevention (CDC) guidelines which are written in English and translated to other languages, 78 respondents representing 90.70% approved to the item. 77 respondents (89.53%) approved that all instructional materials released from the WHO or the CDC regarding the patient safety are written in English, and 80 nurses comprising 93.02% agreed that the risk of fall WHO guidelines are written in English. Finally, 49 nurses (56.98%) agreed that all hospital signs and instructional materials about patients' safety are written in English (e.g., Fire instructions, radiology instructions, patients' bracelets and warning codes).

Table 7 ***Frequencies of Nurses Opinions Concerning English and Patient Safety***

No	Statement	Value	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean Rank	Direction
(5)	I should have a good command of English to be able to obtain the information I need from the patient accurately for their safety.	No.	52	23	8	3	0	4.44	High
		%	60.47	26.74	9.3	3.49	0		
(9)	I should have a good command of English to guarantee accurate and effective communication with foreign patients.	No.	70	15	1	0	0	4.8	High
		%	81.4	17.44	1.16	0	0		
(18)	I should have a good command of English to be able to read, write, listen, speak and disseminate the knowledge I know about medications to my colleagues for patients' safety.	No.	60	25	1	0	0	4.69	High
		%	69.77	29.07	1.16	0	0		
(23)		No.	62	19	5	0	0	4.66	High

No	Statement	Value	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean Rank	Direction
	I should have good command of English to be able to read, understand and articulate the checklist procedures in English accurately for patients' safety.	%	72.09	22.09	5.81	0	0		
(27)	I should have good command of English to be able to read, understand and articulate CDC guidelines and instructional materials to my colleagues for patients' safety.	No.	59	25	2	0	0	4.66	High
		%	68.6	29.07	2.33	0	0		
(29)	To educate myself about the patient risks of fall, I should surf websites that report their experiences in English.	No.	51	27	7	1	0	4.49	High
		%	59.3	31.4	8.14	1.16	0		
(30)	I should have a good command of English to be able to educate myself and protect the patient from the risk of fall and thereby ensure his/her safety.	No.	56	24	5	1	0	4.57	High
		%	65.12	27.91	5.81	1.16	0		
(32)	Knowing English creates a culture that motivates nurses to learn more about patients' safety.	No.	50	27	7	2	0	4.45	High
		%	58.14	31.4	8.14	2.33	0		
(33)	Having a good command of English contributes to ensuring patients safety in general.	No.	48	28	10	0	0	4.44	High
		%	55.81	32.56	11.63	0	0		
(34)	Having a good command of English does not contribute to ensuring patient safety in general.	No.	0	1	13	40	32	1.8	Low
		%	0	1.16	15.12	46.51	37.21		

In table 7, 75 nurses representing 87.21% approved that they should have a good command of English in order to be able to obtain the information they need from the patient accurately for their safety and 85 nurses comprising 98.84% of the study sample agreed that mastering English language guarantees accurate and effective communication with foreign patients. Moreover, 85 respondents constituting 98.84% confirmed that they should have a good command of English to be able to read, write, listen, speak and disseminate the knowledge they acquire about medications to their colleagues for patients' safety and 81 nurses (94.18%) stated that they should have good command of English to be able to read, understand and articulate the checklist procedures in English accurately for patients' safety. 84 nurses (97.67%) approved that they should have good command of English to be able to read, understand and articulate the CDC guidelines and instructional materials to their colleagues for patients' safety and 78 nurses (90.7%) agreed to educate themselves about the patient risks of fall, they should surf websites that report their experiences in English.

Added to that, 80 nurses (93.03%) stated that they should have a good command of English to be able to educate themselves and protect their patients from the risk of fall and thereby ensure patients' safety. Furthermore, 77 nurses (89.54%) confirmed that knowing English creates a culture that motivates nurses to learn more about patients' safety.

Finally, in order to confirm the quantitative results of the constructed questionnaire, two direct and opposing questions were formulated: items 33 and 34. In item 33, 76 nurses comprising 88.37% of the study sample approved that having a good command of English contributes to ensuring patients safety in general whereas none of the sample participants neither disagreed nor strongly disagreed and10 nurses constituting 11.63% of the sample were neutral with a mean score 4.44. On the other hand, in item 34, only one nurse agreed to the statement that having a good command of English does not contribute to ensuring patient safety in general whereas 72 nurses representing 83.72%, either disagreed or strongly disagreed to the statement and 13 nurses (15.12%) were neutral with a mean score 1.8.

Interview Responses

All participated nurses agreed and stressed the importance of learning English as it is considered a contributing factor in ensuring patient safety in the cardiac care context. This is revealed through participants answering the first question in the interview (Does having a good command of English help ensure the safety of patients with heart problems?) with a resounding "Yes". Compared to the questionnaire answers, the interview responses in this respect confirm the questionnaire frequencies.

As for the second question of the interview, extracts have been taken from the responses of the interviewees. In terms of patient identification, the participating nurses stated that all documents used for this process are written in English according to the hospital policies (see Extracts 1, 2). EXMN1 is a nurse educator with extensive knowledge in the field of cardiac care nursing and EXFN1 is an Expert nurse in the subfield of heart failure and provides care for patients with the Left Ventricular Assistive Device (LVAD) which is a device that is installed to the left ventricle of the human heart in order to pump blood and keep the heart functioning.

Extract 1

"All patient identification documents are in English, and I have to be able to read and write English." (EXMN1)

Extract 2

"I have to provide accurate documentation in English and all curricula I studied regarding nursing were in English." (EXFN1)

Moreover, EXFN2, is an out-patient department expert nurse, stated that it is important for all medical records to be in English as the patient may use them when visiting a foreign doctor or is admitted to a hospital abroad. This will allow foreign doctors to know more about the medical history of the patient in order to avoid any medical errors. Yet, since English is the language of science today, using it keeps a professional image of the hospital (see Extract 3).

Extract 3

"Medical records have to be in English because the patient may travel abroad and take those records with them. This also keeps a professional image of the hospital as most hospitals in the world use English for documentation. As a nurse, I have to be able to read English to understand what is written in the patients' medical records." (EXFN2)

EXFN3, the Specialty department supervisor, stated that English is central for effective communication with foreign patients as the medication orientation process becomes simpler and easier. Also, knowing English medical terminologies by her colleagues directly contributes to ensuring patient safety as affirmed in Extract 4.

Extract 4

"If the patient's primary language is English, this helps us to provide him with some information about medications and orient him so easily and If we understand the medical terminologies used in the setting, this helps us ensure patient safety." (EXFN3)

As for medications and their administration, EXMN2, who is an expert nurse working at the Adult Ward of the cardiac Centre, stated that a professional nurse has to be familiar with the side effects of medications, how to store them and how they interact with other medications in some sort of a double-check process following to the doctor's orders to ensure patient safety. In doing so, a nurse must have a good command of English (Extract 5).

Extract 5

"I use English to read about the side effects of a medication and its interactions with other medications, the administration techniques and the way of storage. I use English to read about surgeries and interventions and to educate myself about bacterial infections." (EXMN2)

To disclosing the hazards of the effect of not being proficient in English, EXMN3, who is a charge nurse at the catheterization lab, stated that this could cause delays or misinterpretation of the patients' needs which may cause disastrous consequences that may lead to the death of a patient or a lifetime disability. Furthermore, a nurse may give the wrong medication or the wrong dosage for not being able to read the doctor's written order or understand the doctor's verbal order. This is revealed in extract 6.

Extract 6

"English is common in the medical field as all medical terminologies are in English. Prescriptions and medications' inserts are in English. Not knowing English, especially medical English, will cause delays in response to the patients' needs. You may give the wrong medication or the wrong dosage. The time-out checklist at the Cath Lab is used to verify the corrective procedure implemented for the patient and it has to be filled in English." (EXMN3)

In confirming the importance of English in a surgeon-nurse communication, reading about medications, hospital's policies and applying the risk-of-fall tool, EXMN4 who is a Pediatric Cardiac Intensive Care Unit (PICU) expert nurse, proclaimed that English is essential for implementing tasks accurately as education occurs prior to application (see Extract 7).

Extract 7

"English is important as it helps us connect the patient's diagnosis with the medications and recognize the purpose of medications. Medical English is also used for surgeon-nurse communication. As a PICU nurse, I have to be well-oriented and familiarized with the hospital's policy and the risk of fall measurement tool which are all

written in English. I have to comprehend what is written to be able to apply accurately." (EXMN4)

In general, EXMN5, who is a nurse educator, stated that instruction happens prior to any application of the tools used by nurses in their departments. To be able to educate self, a professional nurse must have a good command of English. Therefore, English is essential for patient safety (Extract 8).

Extract 8

"English contributes to Adhering to the international patient safety goals as before applying them accurately, education must happen. Professional nurses educate themselves about the tools they use first and then apply those tools."

Comparing the questionnaire frequencies to the interview responses, the interview responses and its extracts confirm the results of the questionnaire frequencies. It is evident, through the data collected by both instruments, that English has a significant role to play in the way of ensuring patient safety.

Discussion

The discussion part answers the research questions based on the quantitative and qualitative results of the data following applying the statistical analysis and interpretation of the data collected by the author.

To what extent does English help maintain patient safety in a cardiac care setting for Egyptian nurses?

The results of the study revealed that English contributes significantly to patient safety according to the perceptions of Egyptian nurses. This was obvious through items 33 and 34 that asked directly about whether the English language contributes to enhancing patients' safety or not. In item 33, 88% of the study's sample approved whereas in item 34, 83% of the study's participants disapproved. The qualitative results of the interview confirm those of the questionnaire as participants were expert nurses who had extensive experience in the field of nursing and obtained an English proficiency level that enabled them to implement their tasks effectively and to be open to the world through getting themselves exposed to various clinical practices through reading research papers, academic books, watching videos and attending conferences and webinars presented by other expert nurses where the medium of instruction was English. This implies that in order to be a professional practicing nurse, learning and using English effectively has to be a priority so as to implement the tasks assigned effectively and provide high-quality and world-class care for patients with heart diseases.

How does English contribute to enhancing patient safety for Egyptian nurses?

The quantitative and qualitative results revealed that the English language is involved in most of the nurses' practices such as patient identification, effective communication, high-alert medication administration, surgery and intervention, care-associated infections and risk of fall. A professional nurse, for instance, has to identify the patient who is going to be admitted to the hospital or undergoing an operation. To do that, he/she has to read the identification form which is written in English and write the personal and the medical history information in English which is rife in most of the private sector hospitals in Egypt and the

Middle East. In this case, if the wrong patient is admitted to the operation room for surgery, it would be a disastrous situation thereafter.

Moreover, sometimes there are foreign patients admitted to the hospital, visiting doctors or nurses who can only communicate in English. Errors may happen if the communication is not sufficient or effective as wrong procedures may be implemented for not comprehending what a patient, a doctor or even a fellow nurse wanted to say. With respect to medication administration, a professional nurse has to be able to read, understand and articulate the medication package inserts as they contain valuable information that may improve the health or end the life of a patient. Sometimes, doctors' orders are articulated or written in English which requires the nurses assigned to the patient to read, write and understand English so as to implement the tasks requested efficiently and effectively. In terms of the care-associated infections, a professional nurse has to be familiar with the WHO and the CDC care bundles which are provided in English and recently have been translated into other languages such as Arabic. Nevertheless, knowing two languages confirms the acquired knowledge provided by the instructional materials and the updated guidelines of the CDC and the WHO and all the reliable learning resources provided on trusted websites..

Conclusion

The present study disclosed the perceptions of Egyptian nurses with reference to the contribution of the English language to patients' safety in the context of an Egyptian cardiac care Centre. The results revealed that English contributes significantly to patients' safety through ensuring the patient safety goals; patient identification, effective communication, high-alert medications, surgery and intervention, care-associated infections and risk of falls. The study adds to the extant literature as according to the author's knowledge, none of the previous studies, such as Boylen et al. (2020), Stolarski et al. (2022) and Schwartz et al. (2022) tackled the perceptions of non-native nurses concerning the importance of English in ensuring a safe practice for patients' safety. However, these results cannot be generalized as the vision and mission of the cardiac care Centre focus is on career development that enables nurses to adopt professional attitude, provide the best possible patient care and add to the existing body of knowledge by carrying out scientific research.

The study implies that ESP syllabi designers for medical professionals include some activities that contain medical checklists similar to the WHO and the CDC ones regarding infection control and surgical interventions. Furthermore, some texts, audios and videos could be used in these curricula to improve the reading and the listening skills of nurses in terms of their sub-specialties. Situations in which visiting doctors communicate with locally-based nurses whose native language is not English is important to be added to nursing curricula of English. Medication package inserts for reading purposes is another activity that can be devised and carried out by ESP instructors. ESP instructors should also design case study activities similar to real clinical situations in which specific English, general or medical, terminologies are used. These simulations may result in effective instruction and positive outcomes for the sake of the learners and the instructors eventually.

Scholars are advised to research the correlation between learning general and medical English in other sub-disciplines in the medical domain. Furthermore, they are encouraged to research the effect of the authentic instructional material written and designed in English on the performance of nurses in different medical settings.

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Biography

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