ORIGINAL RESEARCH

Glossophobia: A Cross-Sectional Assessment of Public Speaking Anxiety among Saudi Nursing Students

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Article Info

Abstract

Background: Public speaking anxiety or glossophobia is common among college students, especially those studying in their non-primary language. Effective public speaking is considered an essential skill for nursing students to grasp as their future roles require it as patient advocates. Little is known about the effects of glossophobia amongst Arab students studying nursing in a second language (English).

Purpose: This study aimed to examine glossophobia and its association with English oral presentations among Saudi nursing students in three academic levels.

Methods: A correlational comparative study with a cross-sectional approach was conducted on a total of 209 baccalaureate level nursing students at a governmental, Saudi university. Convenience sampling was used with a comparison between three levels of student cohorts (second, third and fourth) of a single academic year. The data were collected using an online self-reported questionnaire consisting of three sections: a sociodemographic questionnaire, the Foreign Language Classroom Anxiety Scale (FLCAS), and the Personal Report of Public Speaking Anxiety (PRPSA). Data were analyzed using descriptive statistics, a one-way ANOVA, and Pearson correlation tests.

Results: Nursing students had moderate anxiety on the FLCAS and PRPSA scales in all three academic years. There was a significant, moderate, and positive relationship between the two scales (r=0.450, p<0.01).

Conclusions: Glossophobia among nursing students needs to be addressed. This study highlights a gap in current training where there is insufficient support, meaning that levels of anxiety remains unchanged across the trajectory of a nursing training program. Future research should explore culturally tailored strategies to decrease nursing students' anxiety while building their confidence and self-esteem.

1. Introduction

Glossophobia, also known as public speaking anxiety, is classified by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) as a social anxiety disorder (American Psychiatric Association, 2013) commonly experienced by students, specifically those studying in their non-primary language. Students with glossophobia could experience difficulty in verbally articulating their thoughts and ideas consequently, limiting their ability to advance academically (Dincer et al., 2022). Glossophobia is relatively common among nursing students with most studies reporting moderate levels (El-Nagar et al., 2022; Khan et al., 2015; Perveen et al., 2018). According to a cross-sectional study of 288 students from all academic years at four medical colleges, it was found that glossophobia was at its lowest among final-year students as they exhibited the least anxiety levels (Khan et al., 2015). This change in prevalence between the first- and final-year students may be due to effective teaching strategies and/or experience development over time, as it is expected that students in the final year would have gained maturity and increased their level of knowledge and confidence (Aljohani et al., 2021).

Glossophobia tends to present itself as changes seen in cognitive, behavioral, emotional, and physiological states (Dincer et al., 2022). Such changes include palpitations, flushed skin, avoiding eye contact with others and rapid breathing, making it difficult for students to present and/or communicate effectively with others. In a recent study investigating the prevalence of public speaking anxiety among undergraduate students, it was reported that students expressed public speaking anxiety much more frequently than the fear of death (Perveen et al., 2018). The main external factors that contribute to glossophobia among students are the audience's size and composition, the marks or grades awarded for public speaking, the venue, grades obtained in previous public speaking assignments, the speaker's emotional state, and the time of the day (Ibrahim et al., 2022). Whereas the internal factors include nervousness, incorrect core beliefs of learners, fear of a large audience, anxious personality types, fear that the other presentations are better, lack of presentation skills, poor preparation, low confidence levels, forgetting words, and lack of confidence in one's physical appearance, and overall negative learning experiences (Al-Hnifat et al., 2020; Ibrahim et al., 2022).

Another important factor impacting glossophobia among students is language. Many studies support that speaking in English in the classroom causes discomfort for students whose first language is not English (Dellah et al., 2020; Miskam & Saidalvi, 2019), hence indicating a significant relationship between speaking anxiety levels and students' English proficiency (Dellah et al., 2020; Lin et al. 2020; Miskam & Saidalvi, 2019). Studying in a foreign language is a unique experience because students are obliged to communicate in a language they have not mastered (Aliyu et al., 2019). Therefore, teachers should be made aware of the main causes of anxiety regarding public speaking among students and that language learning, specifically oral output, might be stressful for some students (Al-Hnifat et al., 2020). While these results could explain the reasons for glossophobia, consideration is needed for nurses studying in languages other than their first language. This is because Saudi Arabia has a distinct culture that may affect how students with different language proficiencies behave during a presentation. Further studies are needed to determine nursing-specific contributors to glossophobia within an Arab context as Arab nurses are likely to have unique challenges that may affect their presentation skills and abilities.

Consistent with the 2030 vision of Saudi Arabia (Al-Dossary, 2018), which focuses on improving nurses' roles, the current research study measured and compared anxiety levels among nursing students from the first to fourth years to help develop nurses' self-confidence—a personality trait that nurses should develop during their academic training. This includes the ability to present information, which is a core competency of the profession as they must interact with patients from different cultures and communicate with different healthcare teams. The theoretical model by Ansari (2015) was applied to the current study, which links the theoretical construct of second or foreign language speaking anxiety to everyday classroom practice. The model considers communication apprehension (CA), fear of unpleasant evaluations, and test anxiety (TA)—the three elements of foreign language anxiety in this study.

While a limited body of qualitative research has demonstrated the presence of glossophobia in Saudi Arabia among college level students (Al-Hnifat et al., 2020), the researchers were unable to identify any quantitative literature specifically exploring changes over the course of a nursing program. While this issue has been explored in a number of different countries and cultural contexts, current research exploring glossophobia among nursing students in Saudi Arabia is still lacking. This represents a gap in the literature as previous research has shown that even where nursing students within Saudi report the same stressors as in other countries, the context for why they are experiencing them, and the supportive solutions required differ based on unique cultural contexts (Aljohani et al., 2021). Thus, the objective of the current study was to identify and compare the glossophobia level regarding giving presentations in English among three academic years of nursing students to understand whether there is a change across the trajectory of a nursing training program.

2. Methods

2.1 Research design

A descriptive cross-sectional research design was used. This design is appropriate to the study's aim as the study compared glossophobia levels among nursing students regarding presentations in English language among three different cohorts within a single academic year (Polit & Beck, 2021).

2.2 Setting and samples

The participants of the current study comprised a convenience sample of 209 nursing students. They were included in the study if they were willing to participate, their first language was Arabic, and they were studying full-time in the second to fourth year of a bachelor's degree of nursing science program at a governmental university in Saudi Arabia during the 2021 academic year. They were excluded from the study if they had studied at an international high school, as international schools in Saudi Arabia follow an all-English language-based curriculum. Therefore, to avoid it being a confounding variable, students from such schools were excluded. Furthermore, nursing students who were on academic leave were also excluded from this study. The overall number of nursing students was 453, including 185 second-year, 150 third-year, and 118 fourth-year students. For this study, 71 second-year, 70 third-year, and 68 fourth-year students were recruited (almost 50% of each academic year). According to the Raosoft program, the required sample size given a 5% significance level was 209 nursing students (Raosoft, 2004).

2.3 Measurement and data collection

A socio-demographic questionnaire and two psychometric instruments were used to collect the required data. Cronbach's α values were used to assess the instruments' internal consistency and reliability; α>0.70 denoted acceptable consistency. Convergent validity was tested by assessing the correlation of each item with the overall scale.

2.3.1 Socio-demographic characteristics of study participants

This questionnaire assessed the characteristics of the study participants. It assessed age, academic year, semester, gender, whether the respondents lived with family or friends, whether they attended a government or international high school, family income, parents' occupation, and the number of siblings.

2.3.2 Foreign Language Classroom Anxiety Scale

The Foreign Language Classroom Anxiety Scale (FLCAS), developed by Horwitz (1986), was used to measure language anxiety among students. The original instrument comprised 33 items, but was modified for this study with the original author's permission. Some questions were omitted as inapplicable for this sample (items 8, 10, 11, 19, 21, 23, 25, 28, 29, 30, 32, and 33), leaving 21 items. However, the method of score indications and calculations remained the same. According to Horwitz (1986), items are rated on a five-point Likert scale, with response options of *strongly agree, agree, neither agree nor disagree, disagree,* and *strongly disagree.* Accordingly, each item is assigned a score ranging from five to one, with five indicating strong agreement (more anxiety) and one indicating strong disagreement (less anxiety). The scoring is reversed for negatively phrased items (items 2, 5, 11, 15, and 17). Possible scores on the current, modified version of the FLCAS ranged from 21 to 105. Summing up the scores from all the 33 items indicated that the higher the score, the higher the foreign language anxiety level. Additionally, scores were classified as a cut off score of the anxiety level as follows: 21–48 = mild anxiety; 49–77 = moderate anxiety; 78–105 = high anxiety. The instrument is subcategorized into three distinct forms of performance anxiety: CA, which describes the fear and the shyness to speak or listen to a foreigner language (items 1, 4, 8, 13, 15, and 18); TA, which is the construct that involves the anxiety of must having the essential skills to communicate the foreigner language, such as being to attentive (items 3, 5, 6, 9, 14, 16, 17, and 19); and fear of negative evaluation, which articulates how comfortable are the student and the teacher in their communication to equip the student to positively receive the evaluation (items 2, 7, 10, 12, and 21). Cronbach's α for this study was acceptable (α=0.74).

2.3.3 Personal Report of Public Speaking Anxiety

The Personal Report of Public Speaking Anxiety (PRPSA) was developed by McCroskey (2013) as a 34-item instrument. It was modified for this study by removing items 21, 28, 32, and 33 because of repetition, forming a 30-item instrument. The PRPSA measures fear of public speaking, which centers on public speaking anxiety. For example, "While preparing for giving a speech, I feel tense and nervous" and "I get anxious when I think about a speech coming up." Each item is rated on a scale comprising *strongly disagree* (1 point), *disagree* (2 points), *neutral* (3 points), *agree* (4 points), and *strongly agree* (5 points). Scores are classified as follows: 30–69 =

mild; 70–110 = moderate; 111–150 = high. Its reliability in this study was confirmed (Cronbach's α=0.76).

The FLCAS and PRPSA are valid tools and were examined carefully by a panel of three academic experts from nursing mental health in order to ensure the content's validity and relevance. The panel's remarks and suggestions as some items related to FLCAS were omitted because it was not related to objective of the research.

In the main study, data were collected online using structured questionnaires, which included the socio-demographic, FLCAS and PRPSA. After obtaining the necessary ethical approval to conduct the study and permission to use the instruments from the copyright holders, the questionnaires were distributed using an online survey tool. The participants were approached via social media platforms such as WhatsApp, Twitter, and Facebook. The participants were asked to distribute the link to increase the number of study participants. The participants were informed about the inclusion criteria at the beginning of the survey to ensure that they met the required criteria.

2.4 Data analysis
SPSS version 23.0 was used to analyze the data. The data were described using frequencies, percentages, means, and standard deviations. A one-way ANOVA was used to assess the differences in anxiety levels across academic years. Pearson correlations were used to test the relationship between FLCAS and PRPSA scores. A p-value of less than 0.05 was considered statistically significant.

2.5 Ethical considerations
The Nursing Research and Ethics Committee of King Abdulaziz University approved the study (NREC Serial No: Ref No 2B.48). All information and test results acquired from the study participants were considered confidential. To protect privacy, each study participant's data were anonymized by assigning a code. Detailed information about the study was presented on the first page of the online survey tool. Hence, participants had the opportunity to read the information provided and decide whether to engage in the study before they started filling out the survey. Informed consent was implied by the participants' completion and submission of the survey.

3. Results
3.1 Demographic information
As shown in Table 1, of the 209 nursing students at the faculty of nursing who participated in this study, 89% were women and 11% were men. Further, 63.2% were aged 19–21 years, and 87.2% attended government schools. Each academic year (second, third, and fourth) accounted for approximately one-third of the study population. Most participants lived with their families (94.7%), and more than half had two to four siblings.

Table 1. Frequencies and percentages of study participants' socio-demographic information (n= 209)

Socio-demographic information	Frequency	Percentage
Gender		
Female	186	89.0
Male	23	11.0
Age		
19–21	132	63.2
22–26	77	36.8
School attended		
Government schools	183	87.6
International schools	3	1.4
Private schools	23	11.0
Academic year		
Second year	71	34.0
Third year	70	33.5
Fourth year	68	32.5

Table 1. Continued

Socio-demographic information	Frequency	Percentage
Living situation		
Family	198	94.7
Relatives or friends	5	2.4
University student housing	1	0.5
Alone	5	2.4
Number of siblings		
None	9	4.3
2–4	116	55.5
More than 5	84	40.2

3.2 Level and differences of foreign language anxiety among academic years

Table 2 shows the mean score and standard deviation of study participants' responses to the FLCAS. The total mean scores for second-, third-, and fourth-year students were moderate — 63.18(9.30), 62.53(8.60), and 60.60(9.31), respectively. An F-test indicated that the differences among years were nonsignificant (F=1.51, p=0.22). For the mean differences in FLCAS scores among academic years, one-way ANOVA was used. The differences in mean scores across academic years were nonsignificant (p>0.05)—all academic years had the same anxiety level.

Table 2. Mean scores and standard deviations of FLCAS responses

Category	Second year (n=71)	Third year (n=70)	Fourth year (n=68)	F/ p-value
	Mean(SD)	Mean(SD)	Mean(SD)	
Communication apprehension (CA)	2.99(0.51)	2.99(0.52)	2.92(0.57)	0.42/0.66
Test anxiety (TA)	2.93(0.44)	2.90(0.44)	2.78(0.46)	1.94/0.15
Fear of negative appraisal (FNA)	3.23(0.53)	3.11(0.50)	3.07(0.51)	1.71/0.18
Foreign Language Classroom Anxiety Scale (FLCAS)	63.18±9.30 Moderate	62.53(8.60) Moderate	60.60(9.31) Moderate	1.51/0.22

3.2.1 Communication apprehension

CA was measured by five items. The total mean scores for second- and third-year students were the highest (2.99(0.51) and 2.99(0.52), respectively), followed by that of the fourth-year students (2.92(0.57)). However, an F-test indicated that the differences among years were not significant (F = 0.42, p = 0.66) (Table 2).

3.2.2 Test anxiety

TA was measured by 11 items. The total mean score for the second year was the highest (2.93(0.44)), followed by that for the third (2.90(0.44)) and the fourth (2.78(0.46)). However, an F-test indicated that the differences were nonsignificant (F = 1.94, p = 0.15) (Table 2).

3.2.3 Fear of negative appraisal

Fear of negative appraisal (FNA) was measured by five items. The total mean score for the second year was the highest (3.23(0.53)), followed by that for the third (3.11(0.50)) and the fourth (3.07(0.51)). However, an F-test indicated that the differences were nonsignificant (F=1.71, p=0.18) (Table 2).

3.3 Public speaking anxiety among academic years

Table 3 shows public speaking anxiety scores as measured by 30 items. The total mean score for the second year was the highest (97.56(12.35); moderate level), followed by the third (97.47(10.48); moderate level) and the fourth (95.28(10.31); moderate level). An F-test indicated that the differences were not significant among academic years (F=0.93, p=0.39)**.**

Table 3. Mean scores and standard deviations of responses to the PRPSA

PRPSA	Second year (n= 71)	Third year (n=70)	Fourth year (n=68)	F/ p value
	Mean(SD)	Mean(SD)	Mean(SD)	
Personal Report of Public Speaking Anxiety (PRPSA)	97.56(12.35) Moderate	97.47(10.48) Moderate	95.28(10.31) Moderate	0.93/0.39

Note. Items marked with "(R)" are reverse-coded. The mean scores associated with each item and presented in this table are after reverse-coding. These scores should be considered to suggest the anxiety level, not the level of agreement with the item as stated.

3.4 Relationship between FLCAS and PRPSA scores

As shown in Table 4, Pearson correlations were used to assess the relationship between FLCAS and PRPSA scores. There was a significant, moderate, and positive relationship between FLCAS and PRPSA scores (r=0.450, *p*<0.01). Moreover, TA scores were most strongly related to PRPSA scores (r=0.489, *p*<0.01), followed by CA scores (r=0.399, *p*<0.01). However, FNA scores were not related to PRPSA scores (r=0.133, *p*>0.05).

Table 4. Pearson correlations between FLCAS and PRPSA scores

Variable / dimensions	CA	TA	FNA	FLCAS	PRPSA
CA	1				
TA	0.631**	1			
FNA	0.471**	0.491**	1		
FLCAS	0.807**	0.903**	0.746**	1	
PRPSA	0.399**	0.489**	0.133	0.450**	1

**Denotes that the correlation was significant at the 0.01 level (2-tailed).
FLCAS, Foreign Language Classroom Anxiety Scale; PRPSA, Personal Report of Public Speaking Anxiety

4. Discussion

This study aimed to examine glossophobia and its association with English oral presentations among Saudi nursing students in three academic levels. Critical finding from the analysis is that public speaking anxiety (PRPSA) increases with greater exposure or engagement with foreign languages (FLCAS), as there was a significant, moderate, and positive relationship between FLCAS and PRPSA scores (r=0.450, *p*<0.01). The observation contributes to the consensus that foreign language is a critical determinant of foreign language performance. Zhang (2019) observed that familiarity or proficiency with a foreign language could predict an individual's self-perception, belief, and behavioral performance on its application, including reading, writing, speaking, and listening. Hence, impediments to foreign language proficiency could undermine a person's relative achievement of expected performance. According to Teimouri et al. (2019), the above inference implicates the negatively connoted second language anxiety as it significantly impedes learning and second language performance outcomes, including speaking anxiety, which is the present study's focus. Chou (2018) argues that foreign language anxiety affects an individual's input (taking in new information), processing (incorporating new information or retrieving schemata), and output (verbal production) abilities, making it challenging for them to construct accurate, complex, and fluent communication, which are the essential pillars of successfully speaking a foreign language. Thus, increasing foreign language anxiety will increase susceptibility to public speaking anxiety, a direct relationship corroborated by the present research findings.

From the correlation between PRPSA, and FLCAS subcategories, the findings suggest that there is a significant positive association between public speaking anxiety and TA and CA. TA refers to an individual's affective and emotional feelings about foreign language tests, while CA refers to the fear experienced when delivering or preparing a speech to an audience (Nemati et al., 2020; Zhang, 2019). The two predictors are considered key to developing an appropriate learning climate, suggesting the significance of developing foreign language competence and

proficiency through learning and development. It is an especially critical observation, particularly since the research findings indicate a relative reduction in anxiety levels as students' progress through the levels. Notably, most fourth years recorded the lowest anxiety levels in public speaking and moderate foreign language classroom anxiety. Although the latter may not tell much, the findings suggest an inverse relationship between the high anxiety standards of lower-level and higher-level classes in support of discussions suggesting that age or greater experience with a foreign language can help reduce anxiety. It could result from improved teaching methods, accumulated knowledge, or maturity, potentially contributing to the overall capacity and competence to public speak, thus reducing susceptibility to anxiety (Gaibani & Elmenfi, 2016; Sadighi & Dastpak, 2017).

Although knowledge creation is part of developing appropriate vocabulary and confidence in communicating using a foreign language, some evidence suggests that it is not a prerequisite since its impact is not a significant factor determinant. First, greater experience may contribute to increased complexity in the foreign language, leading to higher reluctance and lower commitment to learning, thus contributing to a higher incidence of foreign language anxiety, as observed by Dewaele et al. (2018). Alternatively, knowledge and learning may not be a sufficient predictor of student foreign language outcomes as anxiety is prone to internal and external factors within and outside the control of the individual (Ibrahim et al., 2022). The latter is perhaps more in tune with the findings owing to the lack of differentiation between the participants from different class levels, suggesting the lack of difference between the knowledge and experience achieved as one passes through the various foreign language learning levels (i.e., second, third, and fourth year, or even age). Nevertheless, some authors have rationalized that knowledge of a foreign language should be a prerequisite from which other capabilities and capacities around the use of the foreign language can be developed. According to Byram & Wagner (2018), foreign language knowledge and learning are core to competence development and proficiency, as it provides a basis from which students can critically reflect and understand their respective positions and identities relative to the foreign language, influencing their ability to adjust, accommodate, and commit to learning, ultimately influencing their public speaking capabilities in the foreign language (Byram & Wagner, 2018)

Also worth noting is that the study is representative of a predominantly female student profile, which skews the insights to suggest that foreign language anxiety may greatly affect females more than males. Nonetheless, the research presents mixed findings on the difference between male and female students. Some, like Jiang and Dewaele (2019), find that females more predisposed to worry about foreign languages than males. In other research, Dewaele and Alfawzan (2018) find that females enjoy foreign language classes more than males, which makes them more eager and have greater fun with the language, suggesting a lower potential to experience foreign language-related impediments, including public speaking. Nevertheless, the sample is overly representative of the female demographic, potentially presenting a biased perspective on the relationship between male and female variation of English oral presentations. It is an issue that future studies on the topic should consider when attempting to replicate findings.

5. Implications and limitations

Despite the challenges identified, the research findings offer valuable insight into potential solutions that could enhance nurse competence and capacity development in public speaking. First, knowledge and exposure to the language may play a significant role in reducing glossophobia, as evidenced by the general reduction in anxiety scores as nursing students progress through their academic years. However, the most significant variables are CA and TA, which implicates the curriculum and pedagogical approach to learning. First, it would be appropriate to consider practice-based learning for nursing students in university, where students are provided opportunities to practice their learning to improve their competence and capability to public speak (Logue, 2017). The recommendation should be accompanied by supporting measures like a general review of the curriculum and discourse and person-centered learning initiatives to identify individual strengths, weaknesses, and specific learning needs regarding second language learning. These could enhance the ability to develop nurse competence around their contextual circumstances and conditions, ultimately influencing their public speaking and

subsequent contribution to person-centered care in the field, irrespective of the patient's cultural or linguistic orientation.

Despite the relative success of the study in achieving the general research objective, it is worth noting that the results and findings may be skewed, given the demographic imbalance (i.e., more males than females). Hence, there is a possibility that the findings may not be generalizable to a wider population, especially one that comprises more males than females. There is the possibility of self-report bias, particularly because of the contextual circumstance of the competence being assessed and respondents providing socially desirable responses or exaggerating their responses to create a favorable impression on the researcher (Caputo, 2017). Further, convenience sampling may not have been the best sampling strategy considering that readiness and willingness to participate somewhat subverts the attribute being assessed, as participation does require some level of confidence from the participant, meaning that the results generated a pre-emptive finding.

6. Conclusion

Glossophobia among nursing students needs to be addressed. This study highlights a gap in current training where there is insufficient support meaning that levels of anxiety remain unchanged across the trajectory of a nursing training program. Future research should explore culturally tailored strategies to decrease nursing students' anxiety while building their confidence and self-esteem. For future similar studies, it would be worth exploring the gender-based differences to understand whether there needs to be a variated approach to helping students with foreign language anxiety and the contextual circumstances or conditions that would significantly impact proficiency and confidence in communicating using a foreign language.

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Author contribution

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Conflict of interest

There is no conflict of interest to declare.

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