
RESEARCH ARTICLE

A Gender-Based Quantitative Content Analysis of an ESP Nursing Textbook

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ABSTRACT

This study aims to perform a quantitative analysis of the portrayal of gender in the nursing textbook used at the University of Buraimi in Oman. The study sought to examine gender-related categories, such as images, names, pronouns, words of address, and jobs, through the use of quantitative content analysis. The study findings suggest that, to some extent the nursing textbook exhibits a state of gender equilibrium and parity. The textbook displayed females as more visible than males in images and job categories. In contrast, males were more prominent in domains related to names, pronouns, and forms of address. In general, the school textbook exhibited a fair and impartial representation of both genders to a certain degree. The findings of this current research article are anticipated to assist authors in developing instructional materials that demonstrate a more balanced portrayal of genders within the curriculum.

KEYWORDS

ESP textbooks, nursing education, gender balance, gender equality, gender visibility

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1. Introduction

The issue of gender representation in higher education textbooks has raised concerns, as research regularly indicates an overrepresentation of males and an underrepresentation or portrayal of females in conventional positions (Islam and Asadullah, 2018). College-level general chemistry textbooks exhibit a higher representation of males, with males appearing more frequently at a rate of 70% compared to females at 30% (Becker and Nilsson, 2021). An examination of elementary and middle school textbooks in Turkey revealed a gender imbalance, with women being inadequately represented in comparison to men. Furthermore, women were predominantly depicted as the primary individuals responsible for domestic tasks (Islam and Asadullah, 2018).

Textbooks have a significant influence on shaping gender identities and can leave a long-lasting impression on students' perspectives (UNESCO, 2020). Although attempts have been made to create textbooks that are free of gender-biased preconceptions, improper visuals and descriptions continue to be prevalent in existing textbooks (Blumberg, 2015). Textbooks possess the potential to serve as a potent instrument for effecting social change by questioning and contesting prejudiced norms and values (Torre-Sierra and Guichot-Reina, 2022). Textbooks play a crucial role in influencing students' perceptions, values, and ideas on gender roles and relationships, making gender equality an essential aspect to consider. Textbooks may perpetuate gender stereotypes and inequities by either underrepresenting or misrepresenting women and men, or by endorsing conventional gender norms (GGI Insights, 2023).

Furthermore, gender equality holds significant importance in textbooks for other reasons. Firstly, it provides a precise depiction of the world. Textbooks should give a precise and unbiased depiction of the world, encompassing the varied roles and experiences of both males and girls (Education 2.0 Conference, n.d.). Furthermore, it facilitates the dissemination of gender-sensitive materials.

Utilizing gender-sensitive materials in textbooks helps foster a more inclusive educational setting, by questioning traditional gender roles and advocating for equitable opportunity among all students (GGC Insights, 2023). Furthermore, it has the capability to tackle gender inequality in education. Ensuring equal access to education for all genders is a fundamental entitlement of every human being and plays a crucial role in fostering both social and economic progress. Textbooks that advocate for gender equality can aid in the attainment of the Sustainable Development Goals established by the United Nations, namely Goal 4: Quality Education, which seeks to guarantee comprehensive and fair education for everyone. Additionally, it can foster the development of critical thinking skills. Textbooks that are sensitive to gender can stimulate students to engage in conversations about gender stereotypes and encourage fair and equal behavior, so cultivating their abilities in critical thinking and problem-solving (Chapman, n.d.).

2. Objective of the Study

The objective of this study is to examine the representation of gender in a nursing textbook utilized at the University of Buraimi for teaching English to nursing students in their field of study. In order to achieve this objective, the current study will investigate two primary research inquiries:

1. Does this textbook provide a fair and unbiased representation of both males and females?
2. How are the representations of males and females portrayed in the ESP textbook?

3. Importance of the Study

Examining nursing textbooks for gender representation is crucial because they have a substantial impact on developing students' perceptions, values, and beliefs regarding gender roles and relationships. Studies have demonstrated that gender bias and stereotypes have the potential to impact the level of satisfaction that nursing students experience with their chosen field of study, as well as exert an influence on the provision of culturally sensitive healthcare. Moreover, the presence of gender bias in healthcare, encompassing the field of nursing, can result in deficiencies in knowledge and care, affecting the overall quality and efficacy of healthcare. Hence, it is imperative to tackle the issue of gender representation in nursing textbooks to advance gender parity, question preconceived notions, and guarantee the provision of fair and all-encompassing healthcare.

4. Literature Review

Numerous research has indicated that there is a pervasive presence of gender inequality in school curricula. Textbooks exhibit a notable lack of representation of women and girls, predominantly portraying them in conventional characters. Torre-Sierra and Guichot-Reina (2022) conducted a meticulous analysis of language to investigate the portrayal of gender in primary school textbooks in Spain. The study findings revealed the existence of gender bias against females. Women experienced devaluation and marginalization as participants in society. In contrast, males held a predominant presence in the school texts. Furthermore, Tabatadze (2023) examined the portrayal of gender in educational materials from Georgia by employing feminist critical discourse analysis (FCDA). One of the study's findings revealed the existence and development of particular discourses by excluding and rendering women invisible (Tabatadze, 2023). Textbook writers still prefer to downplay the inclusion of females in school curricula. Another study has also demonstrated that girls exhibit worse academic performance compared to boys in school courses. Bataineh (2021) performed a linguistic sexism analysis on the Pre-Intermediate Market Leader: Business English Course Book. Bataineh (2021) analyzed words of address, pronouns, names, nouns, and the concept of gender being the first in a sequence. The research findings aligned with prior studies on linguistic sexism in textbooks. The analysis revealed that there is an enduring and evident gender bias against females in the specified textbook.

Gharbavi and Mousavi (2012) investigated the occurrence of sexism in English textbooks used in Iranian high schools. The researchers utilized Halliday's systemic-functional linguistic theory to determine the existence or absence of gender bias in the textbooks. The study findings indicate that Iranian school textbooks play a role in the lack of representation of females in educational materials. Gharbavi and Mousavi (2012) verified that males held the majority of communicative roles in the clauses found in the textbooks. The results of the participant role analysis indicated that the frequencies of males in various participant roles were higher than those of females. In addition, Amerian and Esmaili (2015) employed Fairclough's (2001) three-dimensional model to analyze the portrayal of gender in the American Headway Student Textbooks. Their investigation encompassed the analysis of images, characters, social roles, domestic roles, semantic roles, order of appearance, titles, activities, and male semantic roles. Amerian and Esmaili (2015) found clear evidence of blatant sexism towards women in their study. Furthermore, the presence of discrimination against females was unmistakable. The focus was mostly on the presence of males. Additionally, it should be noted that Aljuaythin (2018) did a study to investigate the characteristics of gender representation in two English as a Foreign Language textbooks utilized in elementary schools in Saudi Arabia. She utilized Fairclough's (2015) three-dimensional framework to examine the visual representations, societal and household roles, frequency of male and female appearances, and activities depicted in the EFL school textbooks. The study findings indicated that males exhibited a higher level of visibility compared to females. To put it otherwise, the marginalization of females remains prevalent. The attainment of gender equality in educational curricula remains unrealized. Lastly, Bataineh et al. (2023) performed a study examining gender bias in the Grade 1 Islamic

Education school textbook in Oman. Bataineh et al. (2023) employed a mixed-method approach to investigate various categories associated with gender, such as gender primacy, adjectives, professional roles, images, and names. The researchers determined that the textbook exhibits a pronounced manifestation of gender bias against females. Bataineh et al. (2023) also observed a higher prevalence of males compared to females in photographs, with males being more prominently featured in terms of gender representation, names, and occupational roles. In conclusion, there is still a pervasive presence of gender bias against females in numerous countries. Research has indicated that textbooks and instructional materials frequently perpetuate conventional notions of masculinity and femininity, depicting women in stereotypical capacities such as mothers and homemakers, while men are portrayed as providers. This phenomenon can result in a lack of proportional representation of females in different academic disciplines and reinforce societal expectations based on gender, ultimately impacting the educational experiences and possibilities available to girls. Textbooks exhibit gender bias by portraying stereotypical male and female characters, thought patterns, family roles, and job choices, which have an impact on students' gender perception. The presence of gender bias in textbooks is a concealed barrier to achieving gender equality in education. The impact of textbooks on students is significant and should not be disregarded. Textbooks dominate the majority of class time for both teachers and students and serve as a reflection of a nation's ideals. Hence, it is imperative to eradicate any notions pertaining to discrimination and establish a curriculum that promotes gender equality.

5. Methodology

The objective of this study is to determine the presence of gender bias in the ESP nursing textbook utilized in a private university in Oman.

5.1 Material

The present study's sample comprises a single ESP nursing textbook employed to introduce nursing students to fundamental nursing terminology as well as grammar, reading, and listening abilities.

5.2. Quantitative Content Analysis

Quantitative content analysis is a systematic study approach that involves analyzing numerical data and information found in textbooks, educational materials, and other forms of media. It is widely employed in several domains, such as education, psychology, and social sciences, to assess the occurrence, frequency, and distribution of particular content or themes within these resources (Adukia et al., 2023). This approach can be especially valuable for evaluating the portrayal of gender, diversity, and other social issues in educational resources. It offers a structured and unbiased means of examining the data and recognizing recurring patterns or tendencies (Mandal and Bhavana 2018).

Quantitative content analysis has numerous benefits, rendering it a powerful research technique for analyzing diverse facets of content in educational materials and other forms of media. One of the main benefits is the ability to conduct an unbiased assessment. Quantitative content analysis offers a more unbiased assessment of the content by concentrating on the numerical statistics and information found in textbooks and other forms of media (Bhasin, 2023). Furthermore, it facilitates the collection of a wide range of data. Quantitative content analysis has the capability to gather data from several sources, so enhancing its credibility and offering a broader viewpoint. This facilitates the comparison and documentation of trends throughout time, offering valuable insights into historical and cultural dimensions. An essential attribute of quantitative content analysis is its applicability across several domains. Content analysis is a versatile method employed in many domains such as education, psychology, and social sciences. It allows for the examination of numerous aspects of content in educational materials and other forms of media (Columbia, n.d.).

To summarize, quantitative content analysis has several benefits, such as unbiased assessment, consistent and replicable outcomes, wide-ranging data gathering, and relevance in other domains.

5.3 Sampling

The current study utilized purposeful sampling as the researcher had a distinct understanding of the specific qualities or attributes they wished to investigate and aimed to pick a sample that accurately represents those characteristics (Dovetail Editorial Team, 2023). Purposive sampling is a frequently employed non-probability sampling method in qualitative research. In this approach, researchers choose participants based on particular features or qualities that are pertinent to the research inquiry. The objective is to intentionally select persons or cases that can offer comprehensive and detailed information regarding the topic being investigated. Purposive sampling enables researchers to selectively choose particular groups or individuals that possess the knowledge, expertise, or viewpoints that are most relevant to the research objectives.

Purposive sampling offers researchers the advantage of swiftly collecting pertinent and enlightening data, especially when the objective is to capture a wide range of perspectives or thoroughly investigate a specific occurrence. Nevertheless, it is crucial to

recognize that the conclusions drawn from purposive sampling may lack generalizability to the wider community since the selection of participants is based on specified criteria rather than randomization.

To summarize, purposive sampling is a beneficial method in qualitative research that enables researchers to deliberately choose participants who can provide significant insights and information that correspond with the research aims. Although it provides in-depth and precise information, the absence of randomization implies that the results may not have wide-ranging applicability outside the chosen sample.

5.4 Description of the Sample

The sample textbook is *Career Paths: Nursing*. It is an ESP nursing textbook for nursing major students in level 1. It was published by Express Publishing in 2021. It has 40 pages and 15 units. Units taught in the textbook include *hospital Staff, Hospital Departments, Rooms and Equipment, The Body, Blood, Circulatory System, Respiratory System, Digestive System, Physical Assessment, Recognizing Symptoms, Pain, Medication, Licensed Practical Nurse, Registered Nurse, and Nurse Practitioner*. The ESP nursing textbook contains a plethora of visual representations pertaining to the field of nursing. The visual representations possess a commendable level of clarity and are pertinent to the subject matter expounded upon inside the textbook. The textbook exhibits a noteworthy design. Additionally, each unit is accompanied by a nursing glossary to help learners understand the terminology used in all activities. The textbook aims to serve as an introduction to nursing terminology. The ESP textbook focuses on teaching reading, vocabulary, speaking, and listening skills. The ESP textbook's main focus is on teaching nursing terminology and reading skills to be able to understand nursing-related texts.

6. Results and Discussion

Overall, the findings of the present study demonstrate that the ESP nursing textbook successfully attains gender equality between males and females. The quantitative analysis outcomes offer substantiation for the presence of gender equality across several categories, encompassing images, gender precedence, occupations, and male and female names.

6.1 Quantitative Analysis

6.1.1 Images

The current study employed quantitative analysis to investigate the frequency and proportion of images portraying males and females in the ESP nursing school textbook, revealing a state of gender equality. Table 1 demonstrates the absence of gender discrepancy in the ESP textbook. There are a total of 134 photos in the ESP textbook. The textbook includes a total of 63 photographs portraying males, constituting 47% of the total number of images. In contrast, there are a total of 71 photos depicting females, which accounts for 53% of the overall number of images. The presence of gender equality in the ESP textbook is indicated. Indeed, the presence of females is more conspicuous than that of their male counterparts, as indicated by the statistics presented above.

Table 1: Image Count in ESP Nursing Textbook

Females	Males	Total
71	63	134

6.1.2 Jobs

The current study's findings about the employment of males and females indicate an equitable distribution of jobs between the two genders. Table 2 indicates that there is a nearly equal distribution of employment roles between males and females. There are 12 job positions in the ESP textbook that are filled by females. Likewise, males occupy 11 positions in the identical textbook. Furthermore, Table 3 demonstrates that both girls and males had nearly identical positions, which serves as additional proof of gender parity within the selected textbook. Women were employed in many roles such as *gynaecologists, receptionists, obstetricians, radiologists, lab technicians, pharmacists, cardiologists, nurses, chief surgeons, general practitioners, and firefighters*. In contrast, males were depicted as professionals in the fields of *paediatrics, cardiology, reception, radiology, anaesthesia, general practice, nursing, paramedicine, supervision, and firefighting*. To clarify, females exhibited a higher level of visibility compared to women within this particular group as well. Highlighting the greater representation of girls compared to males in the nursing textbook is a commendable effort toward promoting gender equality in curricula.

Table 2: Jobs Count in ESP Nursing Textbook

Jobs	Males	Females
	10	11

6.1.3 Proper Names

The examination of masculine and feminine proper names revealed that the predominant proportion of proper nouns in the ESP nursing textbooks are linked to males. According to Table 4, the ESP nursing textbook contains a total of 174 proper names. There are 68 feminine proper names and 106 masculine proper names. There exists a significant disparity between genders. Furthermore, Table 3 demonstrates that the most significant disparity between genders within this group is observed in Book 1. There are 46 occurrences of masculine proper names in the ESP nursing textbook, but feminine proper names are only mentioned 25 times. The proper names category displayed significant gender bias against males as it is easy to achieve a balanced representation of both masculine and feminine proper names in the school curriculum. The ESP book designers do not need to exert significant effort to achieve gender balance in this particular gender category.

Table 3: Proper Names in ESP Nursing Textbook

Book	Females	Males
Book 1	25	46
Book 2	23	31
Book 3	20	29
Total	68	106

6.1.4 Terms of Address

The terms of address were examined as part of the investigation into whether the ESP nursing textbook demonstrates gender bias towards females. Table 5 demonstrates that males are more prominently represented than females. There were 39 terms of address linked with males and 23 terms of address associated with females. Furthermore, Table 4 demonstrates that four words of address were employed when referring to females, namely Dr., Ms., Miss, and Mrs. In the ESP textbook, males were referred to as Dr., Mr., and Sir. The disparity in gender representation between males and females is substantial. However, it is important to note that females were afforded a greater number of words of address compared to males. Furthermore, the ESP nursing textbook employed the title Dr. for both males and females, indicating the textbook designers' endeavour to achieve gender equality.

Table 4: Terms of Address in ESP Nursing Textbook

Book	Females	Males
Book 1	7	10
Book 2	10	12
Book 3	6	10
Total	23	39

6.1.5 Pronouns

The final category analysed was that of masculine and feminine pronouns. The study's findings indicate that the ESP nursing textbook lacked a fair and unbiased representation of both males and females. According to Table 5, the textbook had a total of 84 feminine pronouns and 107 masculine pronouns. Furthermore, Table 6 demonstrates that Book 1 had the most significant disparity in the usage of pronouns between males and females. Essentially, this serves as further evidence of gender bias and the prevailing influence of males in the ESP nursing textbook. It will undoubtedly have a significant impact on female learners, who are considered inferior to males.

Table 5: Masculine and Feminine Pronouns in ESP Nursing Textbook

Book	Females	Males
Book 1	15	26
Book 2	25	36
Book 3	44	45
Total	84	107

7. Conclusion

The objective of this study was to examine the manner in which gender is portrayed in the ESP nursing textbook. The findings derived from the examination of textbooks indicate that the representation of women has improved to a certain degree. For instance, females exhibited greater visibility in the job and image categories compared to males. Conversely, males exhibited greater dominance with regard to pronouns, proper names, and addresses. Additionally, it is noteworthy to mention that males assumed only three titles (Dr., Mr, and Sir) in the textbook, while females assumed four titles (Ms, Dr., and Mrs).

8. Recommendations

In recent times, the significance of addressing gender biases and advancing diversity in education has been increasingly acknowledged. By ensuring an equitable distribution of genders in its curriculum, an educational institution not only adheres to the tenets of social justice, but also improves the standard of instruction as a whole. Providing crucial support for the implementation of a curriculum that is balanced between genders is fundamental. First, encouraging a variety of viewpoints. By means of a gender-balanced curriculum, learners are guaranteed exposure to an assortment of viewpoints, life experiences, and accomplishments of people irrespective of their gender. Promoting inclusivity enables learners to cultivate a more holistic comprehension of the global community while simultaneously nurturing empathy and reverence for the multitude of identities present. Furthermore, the curriculum empowers individuals to challenge gender stereotypes by incorporating contributions from male and female figures in diverse academic fields. The observation of accomplished individuals of both sexes across diverse domains serves to undermine conventional gender norms and motivates pupils to pursue their interests without constraints. Exposure to a wide variety of perspectives and experiences further develops critical thinking abilities. Students develop a more comprehensive understanding of information, challenge preconceived notions, and develop discerning perspectives when they are exposed to a curriculum that mirrors the multifaceted nature of reality.

A gender-balanced curriculum additionally fosters positive social and emotional development through the establishment of an inclusive educational setting. By developing an appreciation for and celebration of differences, students foster positive relationships and a sense of community membership within the school. Lastly, with the progression of educational benchmarks comes an increasing acknowledgment of the imperative for curricula to incorporate gender balance and inclusivity. By integrating a gender-balanced curriculum, the educational institution not only conforms to these ever-changing benchmarks but also establishes itself as a frontrunner in advocating for progressive and inclusive education.

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