

The Perspective of Nursing Students and Faculty Members Regarding the Inclusion of Chronic Disease Sexuality Education in Nursing Bachelor Program

Sara Khaled Hakeem^{*}, Danya Hussain Alasbali, Hatoon Khalid Alandejani, Maryam Basil Alameer, Dhuha Youssef Wazqar

Department of Medical Surgical Nursing, Faculty of Nursing, King Abdulaziz University, Jeddah, Saudi Arabia

Email address:

Sarahakeem1999@gmail.com (Sara Khaled Hakeem), Danya.alasbali@gmail.com (Danya Hussain Alasbali), Hatoon.k.alandejani@.l.com (Hatoon Khalid Alandejani), Maryam-basil@hotmail.com (Maryam Basil Alameer), dwazqar@hotmail.com (Dhuha Youssef Wazqar)

^{*}Corresponding author

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Abstract: A growing body of research indicates the need for chronic disease sexuality education in nursing bachelor programs, which is commonly neglected in the nursing curriculum despite its importance. The purpose of the study is to evaluate the barriers of including chronic disease sexuality education in the nursing bachelor programs among nursing students and faculties in Saudi Arabia. This is a descriptive, cross-sectional study using a sample of 300 nursing faculties and students. Online questionnaire developed by Vicki Aaberg focusing on sexuality education in baccalaureate nursing programs was used to collect the data. Sexuality was extremely unaddressed in the nursing program. Most nursing students and faculty claimed that sexuality was embedded in other courses (77%, 92%), thus many topics were not discussed or discussed in maternity courses, which does not cover male sexuality dysfunction. Only 41% of nursing students believed that they're prepared to deal with sexuality concerns in chronically ill patients, while 51% of faculty believed that their students are adequately prepared. Barriers to including sexuality in the nursing programs were the sensitivity of the topic and religious/cultural beliefs. There is a need for the adjustment of chronic disease sexuality education in the nursing bachelor programs in Saudi Arabia to meet the patients' requirements needed to deliver holistic care for individuals with chronic diseases.

Keywords: Chronic Disease Sexuality Education, Cross-Sectional Study, Nursing Bachelor Program, Nursing Faculty, Nursing Students

1. Introduction

Sexuality is an essential aspect of human life. According to the World Health Organization [1], sexual health is defined as a state of social, mental, physical, and emotional wellbeing concerning an individual's sexuality throughout life. Many factors affect a person's sexuality, including biological and psychological factors [2]. Chronic diseases, complications, and treatments can lead to various problems, including sexual dysfunction. A literature review found that erectile dysfunction is one of the first problems that occur in male diabetic patients and decreased arousal and lubrication in

female diabetic patients, resulting in painful intercourse [3]. Similar problems were found to affect hyperthyroidism and hypothyroidism patients, along with ejaculatory dysfunction in males and impaired sexual desire in females [4]. Patients with Parkinson's disease had developed sexual dysfunction induced by the use of dopaminergic treatment [5]. The prevalence of chronic diseases in Saudi Arabia is 16.4% among individuals at 15 years of age and older, and 70.7% in the elderly who are 65 and older [6]. With that being said, it is crucial to integrate chronic disease sexuality education into the baccalaureate nursing curriculum.

Saudi Arabia's culture is highly conservative towards

sexuality and sex education, which results in obstacles with having a straightforward conversation about sex. In fact, sex is considered taboo in Saudi Arabia. Also, families do not discuss it with their children at any age or level in-depth; they altogether avoid even the most essential and basic information that kids need for their daily lives to achieve a higher level of self-understanding. On the other hand, high school students are unwilling to be open with their teachers about sex due to embarrassment and feeling overwhelmed. We believe that reassuring students to become more comfortable and open are obligations that fall on educators; it is one of their most important roles. Society refuses to discuss any sex-related topics remarkably notable in education. At the same time, most Muslim researchers debated that Islam promotes individuals to learn about sex since it is associated with Muslim family life, but rather many educators in Saudi Arabia try to avoid discussing sex [7]. Indeed, the Saudi Arabian society denied any discussion regarding sexuality and sex education because of a wide-spread misconception that discussing sexual health will encourage adolescence to engage and experience sexual activity and may lose their virginity. Teenagers are most comfortable having a conversation with their peers about sex, which results in the accumulation of false information due to unscientific random resources. For instance, social media is filled with misleading information that confuses teenagers more about the correct concept of sexuality, furthermore, increased curiosity to try and experience it by themselves [8].

In nursing care, dealing with patients should be done in a holistic manner. According to American Holistic Nurses Association [9], holistic nursing care stated that dealing with an individual should include all physical, mental, spiritual, cultural, socioeconomic, and environmental aspects to best nurture the quality of life. With that being said, sexuality is a vital aspect of an individual's life that should be addressed when dealing with patients in nursing practice. Sexuality education is extremely unaddressed in the nursing curriculum, which reflected on bachelor graduate nurses resulting in a struggle when dealing with their patients' sexuality. One study discussing patients with type 2 diabetes mellitus stated that erectile dysfunction could be an early indicator for cardiovascular incidence related to silent myocardial ischemia [10]. Another study that reinforces the importance of sex education in chronic disease patients stated that inadequate patient education about restarting sexual intercourse puts patients at a higher risk for post-myocardial infarction complications due to the stress on the heart which is brought by such activities [11].

Based on the literature, nurses realized the part they play when it comes to a patient's sexuality care. However, they struggled in dealing with sexuality in general, either because they lacked the knowledge and access to trusted sources of information, which interfered with providing accurate patient education. Such a topic must be handled delicately given the sensitive nature of it, and nurses found it hard to initiate sexuality care with respect to the patient's boundaries due to lack of experience. Sexuality education is commonly

neglected in the nursing curriculum despite the importance of it, bearing in mind that sexual health is affected by diseases, which reflected on the patient's commitment to their treatments and maintaining intimate relationships [12].

A meta-analysis reviewed that in spite of modern medical health practices and drastic alteration regarding the concept and mentality of sexuality, the difference concerning caregivers assessing sexuality was still insignificant. This gap in practice influenced the wellbeing of patients and their significant others and increased the likelihood of depression and anxiety for people living with chronic diseases and disabilities. The hesitation of healthcare educators to discuss sexuality with their students' gestured to students that sexuality was not as important as other aspects in patients care and generated situations where caregivers who addressed sexuality got judged for doing so. To normalize discussing sexuality and increase the level of comfort when addressing it requires including sexuality in the postgraduate curriculum, frequent practices, and creating a safe and comfortable setting for practice such as simulated learning and roleplaying [13].

A study from the University of Tennessee at Chattanooga concluded that a lack of sexuality training or preparation was a bigger obstacle to evaluating this health aspect and integrating it into nursing plans of treatment, rather than discomfort and humiliation [11]. An 84% of respondents who were bachelor's degree, associate degree nursing students or registered nurses, indicated that they did not believe that nursing school trained them sufficiently to determine the sexual welfare of their patient [11]. This implied that further education on this aspect of treatment should be introduced into pre-licensing nursing programs [11]. A study found that nurses who were born in the fifties had a high degree of ease, trust, and frequency of including sexual health assessment. The former can be linked to increased level of knowledge, in addition to more years of experience [14]. Omitting sexual health evaluation is critical, since improper if not absent sexual status examination led to the suffering of patients who cease undiagnosed, leading to poor life quality arising from chronic diseases or its complications. Hence, controlling those barriers would improve nurses' care holistically [11].

There has been a lack of research and content regarding chronic disease sexuality education in the nursing bachelor program, no previous study in Saudi Arabia discussed this issue, even worldwide not enough research has been conducted regarding the lack of sexuality education in nursing bachelor programs, this gap is considered a concern that should be fulfilled in order for nursing students to deliver holistic care for chronic patients, the importance of this research aims towards increasing nursing students' knowledge and skills regarding sexuality education and focuses on nursing faculty members to include sexuality education in their curriculum.

The purpose of this study is to investigate the barriers of including chronic disease sexuality education in the nursing bachelor programs among nursing students and staff faculty in Saudi Arabia. The main research question is: What are the barriers of including chronic disease sexuality education in the

nursing bachelor programs from the perspective of nursing students and faculties? An additional research question is: What is the level of content of sexuality education related to chronic diseases in the current nursing bachelor programs in Saudi Arabia?

2. Methods

2.1. Study Design

A descriptive, cross-sectional design was used to answer the research questions. The goal of descriptive studies is to describe persons, incidents, or circumstances by studying themes in nature. Methods of cross-sectional data collection offer an opportunity to identify and compare natural groups, such as education, age groups or gender [15]. Descriptive research aims to define a population, condition, or phenomenon accurately and systematically. It can answer questions about where, how, when, and what, but not questions about why. Descriptive research design may analyze one or more variables using a wide range of research methods [16]. Our topic is new; to the best of our knowledge, no studies have shown to explore this topic in Saudi Arabia. We discovered the barriers that nurses discussed in different countries, in what percentage these barriers exist, how they affect the implementation of chronic disease sexuality education in nursing programs and nursing practices in Saudi Arabia's hospitals.

2.2. Participants and Sample Size

The target population of the study consisted of all nursing students, nursing interns, and nursing faculties enrolled/working in nursing bachelor programs across Saudi Arabia. The inclusion criteria of the study were the following: nursing students enrolled in bachelor programs 3rd, 4th year and interns, nursing faculties (Professors, Associate professors, Assistant professors), read and write English, from private or governmental nursing schools, and are willing to participate. The exclusion criteria were the following: nursing diploma, masters and 2nd year nursing students, hospital nursing educators, and nurses who are in administrative positions, and participants who are not willing to participate. A larger sample size of 300 or more was necessary for a non-experimental clinical study [17]. The sample size was calculated using <https://www.surveymonkey.com/mp/sample-size-calculator/>. A sample of 308 nursing students and faculties in Saudi Arabia was collected to provide adequate power in the study.

2.3. Data Collection Procedures

Ethical approval was obtained from King Abdulaziz University Faculty of Nursing before starting the data collection process. An anonymous online English questionnaire developed by Google Survey Forms including a demographic survey and a questionnaire established by Vicki Aaberg [18] focusing on sexuality education in baccalaureate nursing programs was distributed to participants. The questionnaire needed 15 minutes to be completed. The

questionnaire was distributed via social media and professional websites (Twitter, WhatsApp, Telegram, LinkedIn, Emails). All answers were mandatory before submission to avoid any missing data. The data collection started from March 2021 till April 2021. Names of participants were not obtained to maintain confidentiality. Submission of the questionnaires was reflected in the agreement to participate in the study (Implied consent).

2.4. Instruments

The instruments included two parts: First, demographic data; age, gender, occupation, students' educational level, faculty members' job titles, and years of experiences, type of institution, and what region the participants are from was collected, and second: a questionnaire developed by Vicki Aaberg [18] focusing on sexuality education in baccalaureate nursing programs. Permission from the author to use the questionnaire was taken via email. This questionnaire included six closed-ended questions and two checkbox multiple select questions. We specified questions seven and eight to patients with chronic diseases to meet our desired purpose. We excluded the point about LGBT sexual health issues in question 4, which was discussing the content that should be covered in nursing programs, due to cultural and religious barriers. Questionnaires were distributed, one for students and another for faculty members that included question number 5, which examined the comfort of faculty members in teaching the selected contents regarding sexuality.

2.5. Data Analysis

Data had been analyzed by the Statistical Package for Social Sciences (SPSS) version 25.0 for Windows (IBM Corp., 2016). Descriptive statistics was performed to analyze data and answer the main research questions. Descriptive statistics (percentages, means, standard deviations, and frequencies) was used to describe the study findings.

2.6. Ethical Considerations

Ethical approval was obtained from King Abdulaziz University-Faculty of Nursing. Information regarding study purposes, confidentiality, participation, and informed consent was presented clearly in the online submission information. The voluntary nature of the participation was assured, and confidentiality of participants' was considered by the researchers. Submission of the completed surveys was construed as implied consent indicated that they agree to participate in the study.

3. Results

3.1. Demographic Characteristics

There were 308 participants in this study with the following demographic characteristics (Table 1). About 12% (n = 37) were faculty members with an average age of 40 years (SD = 10.03). Most of the faculty members (86.5%, n = 32) were

female. More than half of the faculty members 73% (n = 26) were assistant professors, 21% (n = 8) were associate professors and 5% (n = 2) were professors. A total number of 22 faculty members (59%) had 10 years and more experience in teaching. Almost all of the faculty members 97% (n = 36) worked in governmental institutions.

The remaining participants (88%, n = 271) were nursing

students in third, fourth year and internship with an average age of 21 years (SD = 1.4). Almost all of the students were females (93%, n = 253). Only 10% of the students enrolled in private institutions (n = 28), while the rest enrolled in governmental institutions (90%, n = 243). About 72% of the participants in this study (students and faculty members) were from Mecca region (n = 223).

Table 1. Demographic characteristics of the participants (N= 308).

Characteristics	Faculty members N (%)	Nursing students N (%)
Age	37 (12%) (Mean= 40.1, SD=10.03)	271 (88%) (Mean= 21.83, SD=1.44)
Gender		
Female	32 (86.5%)	253 (93.4%)
Male	5 (13.5%)	18 (6.6%)
Job Title		
Assistant Professor	27 (73%)	
Associate Professor	8 (21.6%)	
Professor	2 (5.4%)	
Educational Level		
Third year		90 (33.2%)
Fourth year		140 (51.7%)
Intern		41 (15.1%)
Type of Institution		
Governmental	36 (97.3%)	243 (89.7%)
Private	1 (2.7%)	28 (10.3%)
Years of Experience		
0	2 (5.4%)	
1-5 years	8 (21.6%)	
6-10 years	5 (13.5%)	
10 years and more	22 (59.5%)	
Region		
Mecca Region	24 (64.9%)	199 (73.4%)
Riyadh Region	7 (18.9%)	8 (2.9%)
Eastern Province	1 (2.7%)	29 (10.7%)
Others	5 (14.4%)	35 (13.3%)
Total	37 (100%)	271 (100%)

3.2. Perspective Regarding the Inclusion of Chronic Disease Sexuality Education in Nursing Bachelor Program

Most of the faculty members (89%, n = 33) answered negatively to human sexuality courses being a prerequisite into the nursing program, as well as 60% of the nursing students (n = 162). About 51% (n = 19) of faculty members and 50% (n = 137) of nursing students responded with 'no' to sexuality being included as a part of the nursing program. Most faculty members (92%, n = 34) and nursing students (77%, n = 208) stated that the nursing program embedded

these sexuality contents into other courses rather than in separate courses.

3.2.1. Time Spent Teaching Sexuality Content

As Tables 2 and 3 demonstrate, most of the content regarding sexuality included in the current nursing curriculum focused on sexually transmitted diseases (consumed four hours and more chosen by 21% of nursing students and interns). On the other hand, taking sexual history (stated by 43.5% of students) and student's feelings, values, attitudes that affect sexuality (stated by 48% of students and 59.5% of faculty members) were not discussed at all.

Table 2. Students and interns responses to the number of hours spent on each content (N=271).

Hours spent on content	0 n (%)	Less than 1 n (%)	1 n (%)	2 n (%)	3 n (%)	4 or more n (%)
Sexual Anatomy & Physiology	12 (4.4%)	36 (13.3%)	51 (18.8%)	89 (32.8%)	48 (17.7%)	35 (12.9%)
Conception	22 (8.1%)	28 (10.3%)	56 (20.7%)	89 (32.8%)	40 (14.8%)	36 (13.3%)
Contraception	26 (9.6%)	40 (14.8%)	51 (18.8%)	93 (34.3%)	34 (12.5%)	27 (10%)
Normal Sexual Function	64 (23.6%)	48 (17.7%)	53 (19.6%)	67 (24.7%)	24 (8.9%)	15 (5.5%)
Sexual Dysfunction	80 (29.5%)	59 (21.8%)	58 (21.4%)	48 (17.7%)	21 (7.7%)	5 (1.8%)
Sexually Transmitted Infections	26 (9.6%)	15 (5.5%)	41 (15.1%)	62 (22.9%)	69 (25.5%)	58 (21.4%)
Disease that affects male and female sexual health	56 (20.7%)	31 (11.4%)	52 (19.2%)	62 (22.9%)	47 (17.3%)	23 (8.5%)
Medication and Treatment that affect male and female	63 (23.2%)	62 (22.9%)	37 (13.7%)	57 (21%)	34 (12.5%)	18 (6.6%)
Taking a sexual history	118 (43.5%)	50 (18.5%)	31 (11.4%)	46 (17%)	20 (7.4%)	6 (2.2%)
Student feelings, values, attitudes that affect sexuality	130 (48%)	41 (15.1%)	41 (15.1%)	37 (13.7%)	16 (5.9%)	6 (2.2%)

Table 3. Faculty members responses to the number of hours spent on each content (N=37).

Hours spent on content	0 n (%)	Less than 1 n (%)	1 n (%)	2 n (%)	3 n (%)	4 or more n (%)
Sexual Anatomy & Physiology	1 (2.7%)	5 (13.5%)	10 (27%)	10 (27%)	4 (10.8%)	7 (18.9%)
Conception	1 (2.7%)	3 (8.1%)	12 (32.4%)	13 (35.1%)	7 (18.9%)	1 (2.7%)
Contraception	1 (2.7%)	3 (8.1%)	10 (27%)	13 (35.1%)	8 (21.6%)	2 (5.4%)
Normal Sexual Function	6 (16.2%)	3 (8.1%)	13 (35.1%)	9 (24.3%)	4 (10.8%)	2 (5.4%)
Sexual Dysfunction	8 (21.6%)	6 (16.2%)	15 (40.5%)	3 (8.1%)	3 (8.1%)	2 (5.4%)
Sexually Transmitted Infections	1 (2.7%)	3 (8.1%)	4 (10.8%)	16 (43.2%)	9 (24.3%)	4 (10.8%)
Disease that affects male and female sexual health	3 (8.1%)	5 (13.5%)	9 (24.3%)	12 (32.4%)	4 (10.8%)	4 (10.8%)
Medication and Treatment that affect male and female	8 (21.6%)	3 (8.1%)	12 (32.1%)	9 (24.3%)	1 (2.7%)	4 (10.8%)
Taking a sexual history	10 (27%)	16 (43.2%)	7 (18.9%)	2 (5.4%)	0	2 (5.4%)
Student feelings, values, attitudes that affect sexuality	22 (59.5%)	7 (18.9%)	3 (8.1%)	4 (10.8%)	0	1 (2.7%)

3.2.2. Courses in Which Sexuality Is Taught

It was agreed upon by students and faculty members as shown in Tables 4 and 5 that the following topics were mainly discussed in the maternity course: conception (68% of students, 68% of faculty), contraception (74.5% of students, 95%

of faculty), normal sexual function (35% of students, 40.5% of faculty), sexual dysfunction (35% of students, 40.5% of faculty), sexually transmitted infections (41% of students, 35% of faculty) and disease that affects male and female sexual health (26% of students, 35% of faculty).

Table 4. Students and interns responses to the courses that taught sexuality topics (N=271).

Course	None n (%)	Anatomy & Physiology n (%)	Maternity n (%)	Community nursing n (%)	Psychiatry n (%)	Older adults n (%)	Medical-Surgical n (%)	Others n (%)
Sexual Anatomy & Physiology	13 (4.8%)	138 (50.9%)	84 (31%)	3 (1.1%)	5 (1.8%)	3 (1.1%)	14 (5.2%)	11 (4.2%)
Conception	17 (6.3%)	37 (13.7%)	186 (68.3%)	9 (3.3%)	4 (1.5%)	3 (1.1%)	9 (3.3%)	6 (2.3%)
Contraception	23 (8.5%)	13 (4.8%)	202 (74.5%)	15 (34.3%)	2 (0.7%)	4 (1.5%)	2 (0.7%)	10 (4.5%)
Normal Sexual Function	68 (25.1%)	80 (29.5%)	94 (34.7%)	3 (1.1%)	5 (1.8%)	6 (2.2%)	11 (4.1%)	4 (1.6%)
Sexual Dysfunction	82 (30.3%)	33 (12.2%)	94 (34.7%)	4 (1.5%)	9 (3.3%)	17 (6.3%)	26 (9.6%)	6 (2.2%)
Sexually Transmitted Infections	19 (7%)	24 (8.9%)	111 (41%)	14 (5.2%)	9 (3.3%)	12 (4.4%)	59 (21.8%)	27 (8.4%)
Disease that affects male and female sexual health	63 (23.2%)	21 (7.7%)	71 (26.2%)	14 (5.2%)	7 (2.6%)	18 (6.6%)	63 (23.2%)	14 (5.3%)
Medication and Treatment that affect male and female	74 (27.3%)	15 (5.5%)	60 (22.1%)	14 (5.2%)	13 (4.8%)	6 (2.2%)	39 (14.4%)	50 (18.5%) ⁱ
Taking a sexual history	127 (46.9%)	14 (5.2%)	57 (21%)	16 (5.9%)	6 (2.2%)	8 (3%)	32 (11.8%)	11 (4%)
Student feelings, values, attitudes that affect sexuality	154 (56.8%)	16 (5.9%)	41 (15.1%)	18 (6.6%)	21 (7.7%)	4 (1.5%)	14 (5.2%)	3 (1.2%) ⁱⁱ

Footnote 1. i Pharmacology. ii Ethics.

Table 5. Faculty members responses to the courses that taught sexuality topics (N=37).

Course	None n (%)	Anatomy & Physiology n (%)	Maternity n (%)	Community nursing n (%)	Psychiatry n (%)	Older adults n (%)	Medical-Surgical n (%)	Others n (%)
Sexual Anatomy & Physiology	0	13 (35.1%)	17 (45.9%)	0	1 (2.7%)	0	3 (8.1%)	3 (8.2%)
Conception	0	4 (10.8%)	25 (67.6%)	2 (5.4%)	0	0	1 (2.7%)	5 (13.5%) ⁱ
Contraception	0	0	35 (94.6%)	1 (2.7%)	0	1 (2.7)	0	0
Normal Sexual Function	8 (21.6%)	10 (27%)	15 (40.5%)	1 (2.7%)	1 (2.4%)	0	1 (2.7%)	1 (2.7%)
Sexual Dysfunction	7 (18.9%)	3 (8.1%)	15 (40.5%)	2 (5.4%)	0	2 (5.4)	8 (21.6%)	0
Sexually Transmitted Infections	0	0	13 (35.1%)	6 (16.2%)	0	1 (2.7)	10 (27%)	7 (19%) ⁱⁱ
Disease that affects male and female sexual health	0	4 (10.8%)	13 (35.1%)	4 (10.8%)	0	1 (2.7%)	12 (32.4%)	3 (8.2%)
Medication and Treatment that affect male and female	8 (21.6%)	0	9 (24.3%)	1 (2.7%)	0	0	9 (24.3%)	10 (27.1%) ⁱⁱⁱ
Taking a sexual history	11 (29.7%)	0	10 (27%)	1 (2.7%)	0	1 (2.7%)	6 (16.2%)	8 (21.6%) ^{iv}
Student feelings, values, attitudes that affect sexuality	24 (64.9%)	0	8 (21.6%)	1 (2.7%)	0	0	2 (5.4%)	2 (5.4%)

Footnote 2. i Foundation of nursing, growth and development. ii Microbiology, foundation of nursing. iii Pharmacology. iv Foundation of nursing, Health assessment.

Meanwhile, taking sexual history (47% of students, 30% of faculty) and student's feelings, values, attitudes that affect sexuality (57% of students, 65% of faculty) were not discussed in any course. The two parties disagreed on where sexual anatomy and physiology were mostly discussed, where 51% of the students answered that it was discussed in

the anatomy and physiology courses, while 46% of faculty members stated that it was discussed in the maternity course. Regarding medication and treatment that affects males and females, 27% of the students claimed that such a topic has not been discussed where 27% of faculty members claimed that it has been taught in the pharmacology course.

3.2.3. Should Sexuality Content Be Taught

Tables 6 and 7 shows the sexuality topics that the participants thought should be included in the nursing program. The most topics that were chosen by both faculty members and nursing students were sexual anatomy and physiology (97% and 93%, respectively). The least chosen topic by 78% of faculty members was student feelings, values, and attitudes regarding sexuality, meanwhile, 85% of

students chose taking sexual history. Ninety-two percent (n = 34) of staff members felt comfortable discussing the following topics with their students, 51% (n = 19) of them believed that the nursing graduates enrolled in their program are prepared enough to deal with chronically ill patients when discussing sexuality, and 78% (n = 29) believed that the nurses' role contained the ability to discuss sexuality concerns with chronically ill patients.

Table 6. Faculty members responses to the topics that should be part of the nursing program (N=37).

Content	Yes n (%)	No n (%)
Sexual Anatomy & Physiology	36 (97.3%)	1 (2.7%)
Conception	34 (91.9%)	3 (8.1%)
Contraception	35 (94.6%)	2 (5.4%)
Normal Sexual Function	35 (94.6%)	2 (5.4%)
Sexual Dysfunction	32 (86.5%)	5 (13.5%)
Sexually Transmitted Infections	34 (91.9%)	3 (8.1%)
Disease that affects male and female sexual health	35 (94.6%)	2 (5.4%)
Medication and Treatment that affect male and female	34 (91.9%)	3 (8.1%)
Taking a sexual history	34 (91.9%)	3 (8.1%)
Student feelings, values, attitudes that affect sexuality	29 (78.4%)	8 (21.6%)

Table 7. Students and interns responses to the topics that should be part of the nursing program (N=271).

Content	Yes n (%)	No n (%)
Sexual Anatomy & Physiology	253 (93.4%)	18 (6.6%)
Conception	250 (92.3%)	21 (7.7%)
Contraception	251 (92.6%)	20 (7.4%)
Normal Sexual Function	238 (87.8%)	33 (12.2%)
Sexual Dysfunction	241 (88.9%)	30 (11.1%)
Sexually Transmitted Infections	250 (92.3%)	21 (7.7%)
Disease that affects male and female sexual health	241 (88.9%)	30 (11.1%)
Medication and Treatment that affect male and female	237 (87.5%)	34 (12.5%)
Taking a sexual history	231 (85.2%)	40 (14.8%)
Student feelings, values, attitudes that affect sexuality	243 (89.7%)	28 (10.3%)

Only 41% of the nursing students (n = 112) believed that they are ready to deal with sexuality concerns in chronically ill patients they will be working with after baccalaureate nurses graduate from the nursing program, while 59% (n = 159) believed the contrary. Most nursing students believed that the addressing issues of sexuality for their chronically ill patients is the role of the nurse (92%, n = 249).

3.2.4. Barriers to the Inclusion of Sexuality in Bachelor Nursing Programs

As Tables 8 and 9 presents, most of the faculty members (70%, n = 26) and nursing students (70%, n = 191) believed that "the sensitivity of the topic" is the most significant barrier they faced to the inclusion of sexuality topics in the nursing curriculum. The second highest chosen barrier by both faculty members (57%, n = 21) and nursing students (53%, n = 143) was "religious and cultural values". The least chosen barrier was "not one of the nurse's roles", which was chosen by 3% (n = 1) of faculty members and 9% (n = 25) of nursing students only. Faculty members and nursing students had similar perspectives regarding the barriers of including sexuality education in the nursing curriculum. About 13.5% of faculty members wrote that sexuality contents were not

important in the bachelor program, hence, making it a specialty content. Meanwhile, 2% of the students wrote that it depends on the teacher and that they are too young to discuss such topics.

Table 8. Faculty members barriers of including chronic disease sexuality education in nursing bachelor programs (n= 37).

Barrier	N (%)
Lack of time	11 (29.7%)
Limited knowledge on sexuality	7 (18.9%)
Lack of training	10 (27%)
The sensitivity of the topic	26 (70.3%)
Religious and cultural values	21 (56.8%)
Prejudice about sexuality	10 (27%)
False beliefs about sexuality	10 (27%)
Not one of the nurse's roles	1 (2.7%)
Shame and feeling insufficient	4 (10.8%)
Conflict with the nurse's personal values and beliefs	1 (2.7%)
Being misunderstood by other colleagues	4 (10.8%)
Less priority than other content	9 (24.3%)
Lack of comfort with topic	14 (37.8%)
Feeling that it's not important	2 (5.4%)
The fear to talk about sex outside marriage	10 (27%)
Others	5 (13.5%) ⁱ

Footnote 3. i Not important in the bachelor program. It's a specialty content.

Table 9. Students and interns barriers of including chronic disease sexuality education in nursing bachelor programs (n= 271).

Barriers	N (%)
The sensitivity of the topic	191 (70.2%)
Religious and cultural values	143 (52.6%)
Prejudice about sexuality	67 (24.6%)
False beliefs about sexuality	103 (37.9%)
Not one of the nurse's roles	25 (9.2%)
Shame and feeling insufficient	97 (35.7%)
Conflict with the nurse's personal values and beliefs	41 (15.1%)
Being misunderstood by other colleagues	77 (28.4%)
Less priority than other content	80 (29.4%)
Feeling that it's not important	85 (31.3%)
The fear to talk about sex outside marriage	134 (49.3%)
Others	5 (1.8%) ⁱ

Footnote 4. i Too young to talk about it, depends on the teacher.

4. Discussion

This cross-sectional study was conducted in Saudi Arabia among nursing students, interns, and staff faculty to investigate the barriers to including chronic disease sexuality education in the nursing bachelor program. Nursing literature described how much time in the nursing curriculum is devoted to various aspects of sexuality [18]. The widely discussed issue was diseases that affect female sexual health (four or more hours by 10% of respondents), where the least amount of time spent was 0 hours in normal sexual function (19%) and taking a sexual history (18%) [18]. The latter is in agreement with this study, where 43.5% of students stated that taking a sexual history was not discussed at all. This study revealed that sexuality topics were mostly discussed in maternity, anatomy and physiology, and pharmacology courses. There aren't any studies that support the previous result, but it is in contrast with an American study conducted by Aaberg which revealed that most sexuality contents are taught in the medical-surgical adult health course [18]. It was reported by most of the participants that sexuality topics were embedded in other courses rather than separate courses, which is in common with Aaberg's study [18].

The students enrolled in the nursing curriculum are exposed to a low level of sexuality content, due to the fact that there are neither mandatory nor elective courses discussing chronic disease sexuality education. Abu Bdair and ConsTantino agreed that in the nursing profession's realms of practice, education, and research, sexual health was rarely reviewed and addressed, and nurses did not pay enough attention to patients' sexual health [14]. A Turkish study conducted by Evcili and Demirel states that 1/3 of the nurses reported their understanding of sexuality topics was poor [19]. Meanwhile, a study conducted in Turkey by Erenel and Ozdemir stated that nursing students' stated that their sexual health knowledge is sufficient, and the reason behind this statement might be that sexual health curricula were accessible as electives at their institutions for senior students [20].

The highest topic chosen by faculty members that should be included in the nursing program was sexual anatomy and physiology, followed by contraception, normal sexual

function, and disease processes that affect male and female sexual health. However, students chose sexual anatomy and physiology, conception, sexually transmitted infections, contraception, student feelings, values and attitudes that affect sexuality. The previous results are slightly different from Aaberg's article, where 100% of the participants agreed that contraception, sexually transmitted infections, and medications and treatments that affect female sexual health are suitable subjects for nursing education [18]. Most faculty members chose student feelings, values, and attitudes regarding sexuality as the least topic discussed, while nursing students and interns chose taking sexual history. Thirty-six percent of students addressed that shame and feeling of insufficient is considered a barrier to discussing sexuality education for chronically ill patients where only 11% of faculty members chose this barrier, the following may suggest negligence to the feelings and attitudes of nursing students by faculty members.

Even though the majority of faculty members felt comfortable discussing sexuality topics, sexuality topics were rarely addressed evidenced by the results of this study, which was common in the literature [21, 20]. The majority of faculty members believed that the graduated nursing students are prepared to handle sexuality concerns when dealing with chronically ill patients whereas only 41% of the students agreed with this statement which implies that faculty members hold different perspectives than the students and interns when it comes to the adequacy of their preparedness to deal with sexuality concerns in chronically ill patients. Meanwhile, Aaberg stated that only 16% of nursing educators thought that their students were prepared to deal with sexuality concerns for their patients [18]. In addition to that, Erenel and Ozdemir reported that sexual health was discussed with 95% of the undergraduates, but even though, only 69% of the students said that they were comfortable discussing sexual health issues with the clients they cared for [20]. Thus, Erenel and Ozdemir's study concluded that nursing students lacked confidence in their abilities to offer sexual health care and faced difficulty beginning treatment, in spite of having positive attitudes toward sexual health care [20].

Seventy percent of participants from this study chose the sensitivity of the topic as the greatest barrier they faced to the inclusion of chronic diseases sexuality education; no other conducted study identified this as the greatest barrier. Faculty members, nursing students, and interns that participated in this study agreed that religious and cultural values were the second greatest barrier. The social stigma around sexuality in general, that we face here in Saudi Arabia stands in the way of providing holistic care for patients suffering from chronic diseases. A study conducted in the U.S. identified that lack of time was the greatest barrier that faculty members faced regarding the inclusion of sexuality education [18]. In contrast, this study showed that only 30% of faculty members believed that lack of time is one of the barriers.

Almost half of the nursing students and interns that participated in this study believed that the fear to talk about sex outside marriage was one of the barriers, whereas faculty

members didn't. This might indicate that young, unmarried individuals feel that sexuality is associated with marriage and shouldn't be discussed outside marriage. A systematic review finding suggested that providing sexual health education by nurses to clients is affected by a lack of knowledge regarding sexual health [22], this emphasizes the need of including sexuality education in the nursing curriculum in order to increase the nurses' knowledge.

Patients depend on nurses to issue detailed information about their health conditions, and how these conditions might affect their lives. Nurses are not only responsible for providing information but also for answering the patient's questions regarding their health status and encouraging patients to address their concerns. Disregarding sexual health education has potentially significant consequences for the nursing profession.

5. Limitations and Recommendations

This study has potential limitations that might have an effect on the results. One of the limitations is that only a small number of faculty members participated (12%, $n = 37$) while the majority were nursing students, we suggest that future research regarding this topic might need to include more faculty members in their sample size. Another limitation while conducting this research was the lack of literature, especially in Saudi Arabia. No previous studies were found to contract and compare the results; therefore, we had to compare our results with international literature which interferes with our culture. This study used a cross-sectional method rather than a longitudinal which could have provided more accurate results. Regarding the usage of quantitative research, there is a call for nursing students to conduct qualitative research to integrate the reasons behind the barriers and provide more clarifications. Additionally, the survey that was used in this study was tested other than Saudi Arabian culture, thus, differences in results could have occurred. This study recommends providing mandatory and elective courses along with continuous professional development programs regarding sexuality content to overcome the issues arising from nurses' limited knowledge regarding sexual health in chronically ill patients.

6. Conclusion

This is the first study conducted in Saudi Arabia with the purpose of investigating the barriers to including chronic disease sexuality education in the nursing bachelor programs among nursing students, interns, and faculties. The most common barriers that this study presented were the sensitivity of the topic and religious and cultural values. Including chronic disease sexuality education in the nursing curriculum will help overcome the social and cultural stigma around sexuality in general. Only 3% of faculty members and 9% of nursing students and interns believed that providing sexuality education is not one of the nurse's roles, yet no action has been taken. Nurses are trusted by patients, therefore preparing them

with enough knowledge and information regarding chronic disease sexuality is very critical.

Conflict of Interest

The authors have no conflict of interest.

Ethical Approval

Obtained.

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