

A Comparative Analysis of Nursing Students' Dress Code: Insights Beyond the Scrubs from Iran, Duke University, Griffith University, and the University of British Columbia

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Abstract

Background Nursing students' attire and appearance can significantly influence their relationships with patients. This study aimed to compare the dress codes of nursing students at four universities: Iran, Duke University, Griffith University, and British Columbia University.

Methods This comparative descriptive study was conducted in 2025, employing Bereday's four-stage model (description, interpretation, juxtaposition, and comparison). Data were collected by reviewing official professional dress code guidelines in Iran and those published on the websites of nursing faculties at Duke University (USA), Griffith University (Australia), and the University of British Columbia (Canada). Keywords such as "professional attire," "professional appearance," "uniform policy," "dress code," and "nursing students" were used for data retrieval. The analysis focused on five key areas: objectives, clothing and professional appearance, personal hygiene and grooming requirements, conduct standards, and monitoring and enforcement.

Results The updated dress code guideline in Iran represents an advancement over the previous version. However, there remains potential for further refinement by incorporating practical and safety aspects from the guidelines of Duke University and the University of British Columbia. While the Iranian guidelines emphasize comprehensive and formal attire, Western universities have largely adopted scrubs or more comfortable clothing as the standard uniform for nursing students. Notably, Duke University's dress code is exceptionally comprehensive, placing significant emphasis on the ethical, professional, communicative, and behavioral dimensions of students. Furthermore, Western universities employ a more direct, expeditious, and decisive approach with serious consequences to address violations.

Conclusion The nursing student dress code in Iran exhibits less comprehensiveness compared to those implemented at Western universities. To strengthen the Iranian guidelines, several key areas warrant consideration: emphasizing practical and safety considerations, providing more detailed and precise specifications for attire, integrating evidence-based infection control and patient safety protocols, and addressing the appropriate use of social media and smartphones within clinical settings.

Keywords Comparative study, Dress code, Nursing students, Professional attire

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1 Introduction

Today, heightened societal attention to the health professions and the vital responsibilities of their members has given healthcare providers a distinct status and value. Moreover, the relationship between healthcare providers and patients is important at all stages of care and significantly influences treatment outcomes.

[1] Professional attire serves as a form of nonverbal communication,[2] reflecting an individual's personality and role,[3] and is considered one of the key standards for establishing effective therapeutic communication between physicians or nurses and patients. Professional attire in any society is shaped by its prevailing beliefs, culture, and values. Despite cultural and social differences across communities, the appearance of physicians and nurses, as an expression of their professional image, and their behavior and conduct, as indicators of professional credibility and integrity, have been emphasized throughout history.[4,5] Members of society generally believe that the appearance of a physician or nurse is important,[6] and that an untidy appearance makes healthcare providers seem unprofessional.[7]

Although the importance of professional image has been emphasized in nursing for several decades,[8] nursing attire has been a source of tension for more than a century.[9] In the nineteenth century, Florence Nightingale introduced a standardized uniform to elevate nursing as a respectable profession characterized by care, compassion, and clinical competence.[10] A nurse's appearance can significantly influence the professional image of healthcare providers and the development of trust-based therapeutic relationships.[11] Therefore, nursing attire affects patients' perceptions and interpretations of nursing performance and the quality of care delivered, and it substantially contributes to shaping the professional image of nurses within society.[1,10]

Beyond its impact on patients' perceptions, on the public image of the nursing profession, nurses' professional attire has been extensively discussed in relation to patient safety, patients' ability to identify and distinguish nurses from other professionals, professional autonomy, and opportunities for self-expression.[12] Evidence shows that patients prefer nurses who appear professional in their attire and whose uniforms make them easily identifiable. Moreover, the ability to quickly recognize staff can be beneficial for security purposes within healthcare systems.[13,14]

Another key objective of professional dress codes is to promote proper personal hygiene and prevent the spread of infections by healthcare providers and students. Effective hand hygiene is the most important method for preventing healthcare-associated infections; however, proper hand hygiene cannot be achieved when wearing rings, jewelry, long or artificial nails, wristwatches, or

long sleeves. Therefore, adherence to professional dress codes is an important factor in maintaining patient and staff safety and, consequently, in controlling healthcare-associated infections.[15]

Findings from various studies also indicate that nurses' uniforms can transmit microorganisms to patients, colleagues, or the nurses themselves. Thus, adherence to professional dress codes is considered an effective strategy for breaking the chain of hospital infections.[16-18] Nursing trainees and interns are among the groups who, similar to healthcare providers, spend extensive time in clinical environments. Given their direct contact with patients, their adherence to professional dress and conduct codes in clinical settings is of great importance. [19] Professional dress codes for nursing students have long been a topic of debate.[20,21] As a result, many universities and major hospitals around the world emphasize professional attire policies to maintain a healthy educational environment and have developed formal dress code regulations for students.[22]

Many educational stakeholders believe that adherence to professional dress codes and wearing uniforms may help reduce negative behaviors related to student appearance. In contrast, opponents argue that professional dress codes interfere with students' right to freedom of expression.[23] Iranian medical universities are no exception to this rule, and the professional dress code regulations for nursing students are among the mandatory appendices of the nursing curriculum in both academic and clinical settings, as developed by the Nursing Board of the Ministry of Health. However, empirical evidence and clinical observations indicate that, in Iran, despite formal regulations, there are challenges with nursing students' attitudes toward professional dress codes and their limited adherence to fully implementing these guidelines. These issues may affect the professional image of nursing, patient trust, and even compliance with infection control principles.

Given the central and undeniable role of nursing students as the future workforce and developers of the nursing profession, and considering the importance of properly establishing professional identity in alignment with international standards, conducting comparative studies in this field is particularly important. Therefore, the present study was conducted to compare the professional dress codes of nursing students in Iran with those of leading international universities, including Duke University (United States), Griffith University (Australia), and the University of British Columbia (Canada). These universities were selected for their prominent standing in higher education and nursing in developed Western countries, and for offering best practices and innovative approaches to professional dress codes. Moreover, despite the emphasis on the importance of professional attire and the existence of regulations in Iran, current

evidence, including negative student attitudes and weak compliance, highlights the need to revise and enhance these regulations.

In addition, the purpose of this comparative study is not merely to identify differences but to extract strengths, opportunities for improvement, and lessons learned from international experience. These insights can be practically applied to localize and develop a comprehensive, realistic, and effective professional dress code for nursing students in Iran. Employing a comparative approach makes it possible to preserve local cultural values while contributing to the enhancement of the professional image of nursing, increasing patient trust, strengthening patient safety, and improving infection control through the development of coherent and applicable dress code policies.

Based on an extensive literature review and searches in reputable databases, no study was found that compared the professional dress codes of Iranian nursing students with those of leading international universities. Therefore, the present study addresses this research gap and provides a foundation for further research and educational interventions in this area.

2 Methods

The present comparative study was conducted in 2025 with the aim of analyzing and comparing the professional dress codes of nursing students in Iran with those of Duke University (United States), Griffith University (Australia), and the University of British Columbia (Canada). The comparison was carried out across five domains:

(a) the objectives of professional dress code policies, (b) clothing and professional appearance, (c) personal hygiene and grooming requirements in educational settings, (d) conduct standards, and (e) monitoring and enforcement.

These five domains reflect the key components commonly found in university policy documents and were derived through a combined approach: a systematic review of the scientific literature on professional dress code policies for medical sciences students, and an analysis of recurring structures and shared elements in the official dress code regulations published by the selected universities (including Iran and the international institutions).

An initial online search was conducted using the QS World University Rankings to identify reputable nursing schools worldwide. Duke University, one of the most prestigious private universities in the world, was founded in 1838 in North Carolina, United States, and ranks 14th globally in the QS World University Rankings by subject for nursing. Griffith University is a public institution established in 1971 in Queensland, Australia, and has been operational since 1975. It ranks 29th globally in the

QS nursing subject rankings. The University of British Columbia is a public university founded in 1908 in the province of British Columbia, Canada, and ranks 13th globally in the QS nursing subject rankings.

To obtain the professional dress code policies for nursing students, a targeted search was then conducted on the websites of the selected nursing schools or their respective universities using the keywords “Comparative study”, “Dress code”, “Nursing students”, and “Professional attire”.

The professional dress code policies for nursing students at Duke University (United States), Griffith University (Australia), and the University of British Columbia (Canada) were selected for comparison with the corresponding policies of Iranian medical universities, given their relative structural and content similarities. These documents were analyzed using Bereday’s four-stage comparative model—description, interpretation, juxtaposition, and comparison to evaluate their strengths and weaknesses.

According to this model, during the description stage, research phenomena are documented using available evidence and information, preparing them for critical review in the next phase. In the interpretation stage, the information examined during the first phase is critically evaluated and interpreted. During the juxtaposition stage, the interpreted data are organized into a framework that highlights similarities and differences. Finally, in the comparison stage, the research problem is analyzed in detail by examining these similarities and differences and addressing the research questions, leading to the final analytical conclusions.^[24]

The researchers considered the necessary ethical considerations for conducting the study by striving to avoid bias in data management, maintaining integrity in handling data and information obtained from primary and secondary sources of the professional dress code policies for nursing students in Iran, Duke University (United States), Griffith University (Australia), and the University of British Columbia (Canada), and ensuring honesty in reporting the findings.

3 Results

The previous professional dress code for nursing students in Iran, approved in 2014/2015, included 26 general and fixed standards across four chapters. It was attached to the curriculum of all nursing programs under the title “Executive Regulations on Student Dress Code and Professional Ethics in Laboratory and Clinical Settings.” The updated executive guidelines, “Regulations on Professional Conduct and Dress for Students and Assistants of Medical Universities and Faculties” (new version, approved 2023), were prepared by the Educational Deputy of the Ministry of Health, Treatment,

and Medical Education. This document includes an introduction, 11 articles, 86 clauses, 13 notes, and four steps. It was approved in July 2023 and is mandatory for all universities upon issuance.

At Duke University, the professional dress code is included as a chapter in the Student Handbook, titled "Clinical Appearance and Attire Policy." At Griffith University, the dress code is presented as one section of the Undergraduate Nursing Internship Professional Experiences Guidelines, titled "Appropriate Attire / Uniform Requirements for Placement." At the University of British Columbia, the professional dress code is provided in a separate document titled "Professional Appearance Standards" and is included as a requirement in the undergraduate nursing curriculum.

The first notable point is that, unlike the professional dress codes of the other universities under review, which are specifically designed for nursing students, the new Iranian dress code is general and applies to all clinical disciplines, and therefore is not specific to the nursing profession.

The professional dress codes in Iran, Duke University, Griffith University, and the University of British Columbia were evaluated and compared across five domains: (a) objectives of the professional dress code policy, (b) clothing and professional appearance, (c) personal hygiene and grooming standards in educational settings, (d) conduct standards, and (e) monitoring and enforcement. The findings of this comparison are presented below.

(a) Objectives of the Professional Dress Code Policy

Since the purpose of a policy guides and justifies its other provisions, analyzing the objectives is of particular importance. In the previous Iranian dress code (2014), the primary goal was to provide a framework for establishing comprehensive professional communication while maintaining professional dignity. In contrast, the new Iranian policy (2023) emphasizes creating a safe environment for patients, enhancing efficiency, and adhering to cultural and behavioral standards in alignment with other healthcare staff.

Duke University explicitly highlights the reflection of nursing school standards, facilitating student identification, and fostering trust among patients and the healthcare team, while also considering infection control and patient sensitivities in attire selection. The University of British Columbia emphasizes the role of students as ambassadors of the nursing school and profession, stating that the standards aim to reflect nursing professionalism in society, enable clinical practice, and ensure safety and infection control. For Griffith University, the specific objectives of the dress code policy are not explicitly stated.

By comparing the stated objectives, it can be observed

that a common feature of the dress codes of Iran, Duke University, and the University of British Columbia is the emphasis on maintaining professional dignity and fostering effective communication. The Duke and British Columbia policies adopt a more comprehensive and precise approach, addressing not only ethical and communicative aspects but also practical considerations such as infection control and safety; elements that are not as explicitly addressed in the Iranian policies.

The updated Iranian policy shows progress over the previous version by addressing a broader range of considerations; however, it can still draw on the Duke and British Columbia codes for best practices on practical and safety-related aspects. Building trust with patients and other members of the care team is particularly emphasized in Duke's policy, while the role of students as ambassadors of the nursing profession is specific to the British Columbia code. The absence of clearly stated objectives in Griffith University's policy is a significant shortcoming that requires revision. Detailed comparisons of the professional dress code provisions regarding "Objectives of the Dress Code Policy" are presented in the attached [Table 1](#).

Table 1 Comparison of the objectives of nursing students' professional dress code policies

University	Objective
Iran (Previous version – 2014)	The attire and behavior of all personnel in medical science roles should be such that, while maintaining professional dignity, they provide a foundation for appropriate and effective professional communication with patients, their companions, colleagues, and others in educational settings.
Iran (New version – 2023)	The behavior, attire, and appearance of students, and assistants in clinical centers, alongside physicians, nurses, and allied health professionals who wear designated uniforms based on their specific roles, should create a safe environment for patients and contribute to increased efficiency and adherence to cultural and behavioral standards in all areas.
Duke	The professional dress code policy ensures a professional appearance that reflects the standards of the Duke University School of Nursing. It facilitates the identification of nursing students and fosters trust among patients, families, physicians, nurses, and other members of the healthcare team. Infection control policies and patient sensitivities should also be considered when selecting attire.
Griffith	The specific objectives of the professional dress code policy are not stated.
University of British Columbia	Nursing students are ambassadors of the nursing school and profession, and their attire and appearance in all healthcare settings should reflect the professionalism of nursing as perceived in society. Compliance with professional dress standards also enables students to engage in clinical activities while ensuring safety and infection control.

(b) Clothing and Professional Appearance

The dress code policies under review at all four universities emphasize the necessity of attire that is:

1. Uniform;
2. Conventional, simple, and non-restrictive;
3. Bearing the university logo or emblem; and
4. Accompanied by a student ID card/tag during internships and clinical placements.

Additionally, all four policies similarly stipulate that lab coat buttons must remain fastened; large or dangling jewelry and visible piercings are prohibited, except a simple, unadorned ring that does not interfere with hand hygiene; symbols unrelated to the medical profession should not be attached to lab coats, pants, or shoes; and flip-flops and sandals are prohibited at the bedside, except in operating and delivery rooms. On the other hand, none of the dress codes impose restrictions on religious attire, except for the prohibition of face veils or full-body coverings at the bedside.

In Iran, nursing students wear knee-length, non-restrictive, and opaque white lab coats during clinical training. At Griffith University, the uniform consists of a navy polo shirt and conventional black or navy long pants. Female nursing students are also permitted to wear knee-length skirts or shorts in black or navy.

At Duke University, the uniform is a navy scrub set, which may include a top and pants or a skirt. Additionally, wearing a long-sleeved solid-colored shirt in black, white, or gray under the scrub top is allowed.

At the University of British Columbia, students are required to purchase two scrub tops and two scrub pants

for clinical placements, and wearing non-standard vests or jackets over the scrubs is prohibited. This university does not specify a particular color for the scrubs.

While Duke University permits nursing students to wear wristwatches in clinical settings, Griffith University and the University of British Columbia prohibit their use due to hospital policies, infection control guidelines, and potential interference with clinical procedures. The Iranian professional dress code provides no guidance on wristwatches.

Regarding adherence to cultural and religious dress practices, only Griffith University's nursing student dress code includes a separate section specifically addressing cultural considerations.

Overall, in the comparison of clothing and attire, the previous Iranian dress code primarily provided general guidelines, with insufficient attention to practical details or an evidence-based approach. The updated Iranian policy, while giving greater consideration to hygiene and safety, has been revised to emphasize cultural, religious, and ethical standards, as well as prohibiting the use of inappropriate social media profiles.

In contrast, the dress codes of Duke, Griffith, and the University of British Columbia offer more comprehensive, precise, and detailed guidance on Clothing and professional appearance (including color, size, type, etc.), reflecting a more practical, safety-oriented approach. Additionally, while Iran emphasizes full and formal coverage, Western universities have adopted scrubs or more comfortable clothing as the primary uniform for nursing students (Table 2).

Table 2 Detailed comparisons of the professional dress code provisions regarding “Clothing and Professional Appearance”

University	Clothing
Iran (Previous version – 2014)	<p>Student clothing for entry into educational settings (especially clinical and laboratory environments) must be uniform and include the following features:</p> <ol style="list-style-type: none"> 1. A long, white lab coat reaching the knees, loose-fitting, with long sleeves. 2. The lab coat must bear the emblem of the relevant University of Medical Sciences and Health Services. 3. All buttons on the lab coat must remain fully fastened at all times while present in educational settings. 4. A valid photo ID badge displaying the first, last name, title, faculty name, and the field of study must be worn on the left side of the chest at all times in educational environments. 5. Female students must cover their entire head, neck, and chest, as well as all hair, with appropriate coverings. 6. Pants must be long, conventional, plain, and non-tight. Wearing torn jeans or similar garments is considered inappropriate for the medical profession. 7. Wearing plain socks that fully cover the feet and calves is mandatory. 8. Wearing mesh or decorated socks is prohibited. 9. Shoes must be comfortable, professional, and quiet while walking. 10. Lab coats, clothing, and shoes must be comfortable, clean, tidy, and within conventional standards; bright or inappropriate colors are not allowed. 11. The use of symbols or accessories unrelated to the medical profession, or attaching them to lab coats, pants, or shoes, is prohibited. 12. Wearing or displaying gold rings (except a wedding band), bracelets, necklaces, or earrings in educational settings is prohibited. 13. Wearing slippers or sandals in educational settings is not permitted, except in operating rooms or delivery rooms.

- Iran (New version – 2023)
1. Examples of dress code requirements and prohibitions (applicable to both male and female students)
 - Wearing attire that contradicts sacred Islamic law, Islamic and national culture, university norms and standards, or that promotes Western culture and lifestyle, or contains letters, words, or symbols associated with emerging spiritual movements, deviant sects, or Satanism is strictly prohibited.
 - Styles of manteau (overcoat), headscarves, clothing, shoes, and bags must be simple and free from extreme fashion trends.
 - Clothing that is short, tight, open-front, made of sheer fabrics (such as chiffon or lace), or features open necklines that expose the body is prohibited.
 - Wearing unconventional wrist or ankle bands that feature offensive designs, symbols of deviant or unethical groups, or elements such as bright colors, sequins, lights, padlocks, or chains is not allowed.
 - The use of headbands, shawls, neckerchiefs, belts, rings, or bags containing inappropriate or offensive designs, Latin letters, or symbols associated with deviant groups is prohibited.
 - Clothing that displays images of women, romantic or vulgar phrases, obscene language, humorous or meaningless images, ethnic or racial slogans, anti-religious symbols, logos of deviant groups (such as rap or heavy metal), or commercial advertisements considered offensive or disruptive to the educational environment is strictly prohibited.
 - Wearing attire suited for non-academic settings, such as party clothing, recreational wear, sportswear, or outfits appropriate for leisure environments is not allowed in the university setting.
 - Wearing hats in classrooms, at patients' bedsides, and in outpatient clinics (educational settings) is not permitted.
 - To prevent foot injuries and reduce the risk of infection transmission, the use of slippers and sandals in educational or clinical environments except in operating rooms and critical care or cardiac units is prohibited.
 2. Examples of dress code requirements and prohibitions for female students
 - Wearing a hat without a headscarf (maqna'eh) is prohibited.
 - A long, adequately thick maqna'eh (extending below the shoulders) must be worn to fully cover the head and hair, ensuring the neck and collar area are also concealed. The use of thin or short scarves, wearing only a shawl, or exposing hair from the front or back of the headscarf is not permitted.
 - Wearing a blouse and pants without a closed-front manteau is prohibited. No part of the body should be visible beneath the manteau.
 - Lab coats or dresses for both women and men must be fully buttoned at all times in clinical environments.
 - Specifications for student/resident lab coats: long white coat (knee-length), loose-fitting, long-sleeved, non-tight, and thick enough so that clothing underneath is not visible.
 - Wearing a skirt as a substitute for pants is prohibited, except in specific cases such as illness or pregnancy.
 - The presence of students or residents in educational settings wearing mantles that are tight, overly loose, short (above the knee), overly long, slit, short-sleeved, tight-fitting, transparent, brightly colored, or with offensive designs, as well as wearing sweatshirts, blouses, shirts, sundresses, and tunics is prohibited.
 - Wearing baggy pants, trouser socks, or torn/patched pants is not allowed.
 - Wearing socks (for both men and women) that cover the ankle is mandatory. Lace socks are prohibited.
 - Wearing high-heeled shoes (over 5 centimeters), noisy shoes, and boots worn over pants is not allowed.
 3. Examples of dress code requirements and prohibitions for male students
 - Wearing women's clothing, tight or short T-shirts, body-hugging garments, sleeveless tops, tank tops, open-collared shirts, shorts, casual wear, low- or high-waisted pants, tight-fitting or patched pants is prohibited.
 4. Dress code in dormitories and sports facilities
 - Dress in the dormitory areas must be appropriate for the shared environment. Wearing casual or revealing clothing, especially for female students is prohibited in any public area of the dormitory.
 - Considering gender segregation in sports facilities, sport-specific attire may be worn according to the requirements of the environment and the sport.
- Duke University
1. Each clinical unit has its own specific professional dress code, and students are required to adhere to it.
 2. The permitted uniform includes navy blue scrubs (top and pants or skirt).
 3. Denim scrubs are prohibited.
 4. Wearing scrubs with logos or insignias related to specific centers or sects is prohibited.
 5. The Duke Nursing School emblem must be attached to the upper part of the left sleeve of the scrub, approximately 2 inches (about 5 centimeters) from the shoulder seam.
 6. Pants or skirts must fit at the waist and be of a length that does not drag on the floor.
 7. Scrubs must be clean, presentable, and free of wrinkles.
 8. To control infection, the nursing school uniform should not be worn in other environments (such as grocery stores, shopping centers, or restaurants).
 9. Wearing hats or headscarves that are not part of the uniform is prohibited.
 10. Wearing religious head coverings (such as scarves, shawls, or hijabs) is permitted.
 11. Wearing a plain long-sleeve shirt in black, white, or gray under the scrub is permitted.
 12. Undergarments should not be visible.
 13. Students in clinical settings must wear a wristwatch with a second hand or a watch that allows counting seconds.
 14. Wearing clean, closed-toe shoes with low heels in dark brown, navy blue, black, or white, made of leather or other non-permeable materials, is mandatory.
 15. Shoes worn in clinical settings should not be used as everyday or sports shoes.
 16. Wearing open-back shoes, high heels, heel-less sandals, or shoes with multiple holes is prohibited at the bedside.
 17. Wearing plain, single-color socks in white, red, black, gray, brown, or combinations thereof, without patterns, is permitted.

18. Students must always carry the Duke Nursing School ID badge in clinical settings.
19. Some clinical units or departments may require additional badges.
20. Student ID badges must include the student's name and photo and be attached in a way that ensures continuous visibility of both. Badge clips that cause the badge to rotate or interfere physically with patient care are not permitted.
21. Wearing hanging badges in clinical settings is prohibited.
22. Regarding jewelry, only a simple ring without additional decorations on each hand is allowed. Wearing dangling earrings, large rings, or other hanging jewelry in clinical settings is prohibited.
23. For ear piercings, a maximum of two small, simple stud earrings is allowed in each ear. Decorative items that cause ear stretching, dangling earrings, and other hanging jewelry are prohibited in clinical settings.
24. Visible piercings on other parts of the body, such as nose or lip piercings, are prohibited. Students with nose piercings must use a simple, unadorned retainer in the piercing.

Griffith University

1. Students are required to wear standardized uniforms and appropriate attire based on the center or clinic during internships, and must also wear their student ID badges.
2. The student ID badge must be carried at all times and visibly attached to the uniform.
3. Nursing students must wear the uniform throughout the entire internship period.
4. The uniform consists of a navy-blue collared T-shirt and long black or navy trousers suitable for both male and female students. Female students may alternatively wear a knee-length black or navy skirt.
5. The student uniform must prominently display the Griffith University logo or emblem.
6. Wearing jeans, tight shorts or short skirts, tights, and tight-fitting leggings is strictly prohibited.
7. Student dress must not display slogans, graphics, or unauthorized logos.
8. According to hospital policies and infection control protocols, the following must be provided: All students are mandated to roll up their sleeves above the elbows during clinical procedures and hand hygiene practices. The use of long-sleeved scrubs, wristwatches, and rings is strictly prohibited. Additionally, floor-length or ankle-length garments are not permitted in the bedside environment to maintain safety and sterility.
9. Shoes must be worn at all times during internships and must meet the following requirements:
 - They must be clean and free from visible contamination.
 - Shoes made of mesh or open-weave fabric are not permitted.
 - Shoes with white soles should be well-maintained, clean, and tidy.
 - Shoes must be fully enclosed, black or navy, with non-slip soles, and made of leather or synthetic leather to facilitate cleaning after exposure to bodily fluids and to minimize risks such as needle penetration.
 - Informal footwear such as canvas shoes, open-toe shoes, ballet flats, athletic shoes, mesh or open-weave shoes, high heels, and slippers in unauthorized colors is strictly prohibited.
10. In specific mental health clinical placements, uniforms are not required as outlined in the orientation briefings; however, students must still adhere to the following professional dress standards:
 - Professional attire must always be worn.
 - Open-front clothing is prohibited.
 - Tight or provocative clothing is not allowed.
 - T-shirts are forbidden.
 - Jeans and shorts are prohibited; fabric trousers must be appropriate and properly fitted.
 - Torn or worn-out clothing is unacceptable.
 - Skirts must be at least knee-length.
 - Sports shoes, running shoes, sneakers, sandals, Crocs, and open-toe shoes are not permitted.
 - Shirts must have collars; polo shirts are acceptable.
 - Clothing bearing writing or advertisements is not allowed.
11. For students observing cultural or religious practices, the following accommodations may be provided:
 - A long-sleeved cotton shirt in navy or black may be worn beneath the official uniform.
 - Students must roll up their sleeves during all clinical procedures and handwashing to maintain sterility.
 - Long uniforms (floor-length or ankle-length) are not permitted at the bedside.
 - Simple headscarves or hijabs in black, navy, or white are permitted; the fabric must be lightweight, securely pinned, and tucked into the shirt.
 - Niqabs (face veils) and chadors are prohibited at the bedside.
 - A plain turban in black, navy, or white may be worn.
12. Jewelry may interfere with clinical procedures and pose an infection risk; therefore, the following rules apply:
 - Only simple stud earrings are allowed.
 - A plain wedding band (without stones or engravings) may be worn if it does not interfere with proper hand hygiene.
 - Wristwatches are not permitted.
 - Facial piercings must be removed. For cultural reasons, a flat, transparent retainer may be used for nose piercings; however, dangling rings are not permitted at the piercing site.

University of British Columbia

1. All uniforms must be worn in a manner that maintains a professional appearance.
2. A standard nursing uniform is mandatory for all students. It must be worn at the Nursing Clinical Skills Center, on campus, and in all clinical environments.
3. Students are required to purchase two pairs of pants and two scrub tops.
4. Wearing non-standard vests, jackets, or sweaters over scrubs is prohibited.
5. Uniforms must be appropriately sized and of proper length.

University of British Columbia	6.	Wearing long pants that touch the floor is not allowed.
	7.	The uniform must allow students to sit, bend, and raise their arms comfortably while working with patients, while ensuring that the abdomen, back, chest, and shoulders remain covered.
	8.	Uniforms must be clean, wrinkle-free, and in good condition.
	9.	Students may wear a plain black, white, or navy t-shirt-style top with short or three-quarter sleeves under the uniform, if desired.
	10.	To comply with infection control guidelines, students must arrive at clinical areas wearing their uniforms and remove them before leaving.
	11.	Certain units or departments have specific professional dress requirements for nursing students. Instructors communicate these expectations through course outlines, welcome packages, orientation sessions, and other instructional materials. In community health and acute mental health placements, uniforms are typically not required; instead, students are expected to wear professional office attire that complies with the following standards: <ul style="list-style-type: none"> • Sportswear is not permitted. • Clothing must not interfere with professional duties (e.g., it must not be too tight or too loose). Tight-fitting pants, such as leggings, are acceptable only if worn with a long shirt or tunic. • Jeans are generally not permitted. If allowed, they must not be faded or torn. • The abdomen, back, chest, shoulders, and upper thighs must remain covered throughout all movements involved in patient care.
	12.	Nursing students must wear shoes that comply with the standards of the Canadian Workers' Compensation Law and present a professional appearance. Accordingly: <ul style="list-style-type: none"> • Shoes must be designed for safety and walking (non-slip with proper support). • Shoes must be fully closed at the toe and heel. • Athletic shoes are permitted. • Slippers are not allowed.
	13.	In alignment with the University of British Columbia's professional standards, nurses and nursing students must clearly and accurately identify themselves by name, title, and role. Therefore, all nursing students are required to wear a faculty-issued ID badge at all times and in all settings. The badge must be visible to patients, families, healthcare providers, and institutional staff.
	14.	Nursing students must carry a digital or analog watch with a second hand (either placed in a pocket or worn as a chest watch; wristwatches are not allowed), a stethoscope, and a blue or black pen in clinical environments. Carrying a medical flashlight, bandage scissors, a small notebook, and medication cards is optional.
	15.	Religious head coverings are permitted, provided they are securely fastened.
	16.	Jewelry can harbor microorganisms and pose safety risks; therefore, it should be minimal and straightforward. By infection control and patient safety guidelines, the following expectations apply: <ul style="list-style-type: none"> • Jewelry on the hands and wrists (e.g., bangles, bracelets, metal watches) is not allowed. Religious and medical bracelets may be worn if they do not interfere with patient safety or infection prevention and are approved by the program coordinator. • Wearing necklaces is prohibited in emergency and acute mental health units due to safety concerns. • Necklaces and piercings must be small and simple. • Necklaces and piercings must be designed to break away or come loose if pulled or caught. • Accessories that may pose a danger to the student or others (e.g., scarves in acute mental health units) are not permitted. • Necklaces and piercings must be small, simple, and designed to break away or come loose if pulled or caught. • Accessories that may pose a danger to the student or others (e.g., scarves in acute mental health units) are not permitted. • Necklaces and piercings must be small, simple, and designed to break away or come loose if pulled or caught. • Accessories that may pose a danger to the student or others (e.g., scarves in acute mental health units) are not permitted.

(C) Personal Hygiene and Grooming Standards in Educational Environments

The personal hygiene and grooming standards at the universities under review, despite minor differences, all emphasize the importance of maintaining cleanliness, neatness, and a professional appearance for nursing students.

Iran (Previous Version – 2014) presents regulations that were more general, highlighting overall cleanliness, short and clean nails, the prohibition of unconventional makeup, tattoos, and strong perfumes. Iran (New Version – 2023) provides updated guidelines with more detailed instructions, including prohibitions on jewelry

and accessories that conflict with religious and cultural norms, hanging items with inappropriate images or text, visible tattoos, sunglasses (unless recommended by a physician), artificial eyelashes, artificial nails, attention-grabbing makeup, and unconventional hairstyles for men. Duke University takes a comprehensive approach, specifying hair maintenance, restrictions on jewelry and piercings, covering tattoos, prohibition of tobacco use, forbidding fanciful hair colors, minimal and conservative makeup, no artificial nails or nail polish, and avoidance of strong perfumes due to the potential for patient allergies. Griffith University emphasizes cleanliness and neatness of clothing and hair, prohibits sportswear and

clothing with slogans, and includes similar restrictions on nail polish/gels, artificial nails/eyelashes, and jewelry. The University of British Columbia focuses on infection control and patient safety, requiring clean and well-groomed hair, the prohibition of long or loose hair, short facial hair, no artificial eyelashes, clean and short nails, no artificial nails or nail polish, and a complete ban on scented products. Overall, it can be observed that all four universities emphasize the importance of personal hygiene and cleanliness, restrictions or prohibitions on certain cosmetics and jewelry, and the prohibition of artificial nails, nail polish, and strong perfumes, reflecting a shared focus on preventing the transmission of

infections and creating a safe and hygienic environment for patients and staff. While the new Iranian regulations (2023) provide a more comprehensive and updated framework compared to the previous version, detailing more specific dos and don'ts regarding grooming, they place greater emphasis on religious considerations compared to foreign universities. In contrast, Duke University and the University of British Columbia adopt a more precise, evidence-based approach centered on infection control and patient safety, providing detailed guidance on clothing, jewelry, and the use of perfumes (Table 3).

Table 3 Detailed comparison of the professional dress code regulations regarding “personal hygiene and grooming standards in educational settings”

University	Personal hygiene and grooming standards in educational settings
Iran (Previous version – 2014)	<ol style="list-style-type: none"> Those affiliated with the medical profession are role models for cleanliness and personal hygiene; therefore, without a doubt, cleanliness of appearance and hygiene in medical education environments is essential. Fingernails must be short and clean. Nail decoration with polish or stickers in any form is prohibited. The use of artificial nails or long nails increases the risk of infection transmission and the possibility of harm to others and medical equipment. Unconventional hair and facial makeup styles that are inconsistent with the dignity of the medical profession are prohibited. Displaying any form of makeup, such as tattoos or using rings or studs in the nose or any part of the hands or face, is prohibited. The use of colognes and perfumes with strong or allergenic scents is prohibited in educational settings.
Iran (New version – 2023)	<ol style="list-style-type: none"> Examples of do's and don'ts regarding grooming (common for both men and women): <ul style="list-style-type: none"> The use of accessories that contradict the sacred Islamic law, Islamic and national culture, the dignity and customs of the university, and that promote Western culture or contain letters, words, or symbols of new-age mysticism, deviant sects, and satanism is prohibited. Wearing any hanging items displaying images of women, romantic phrases, vulgar language, obscene words, humorous, meaningless pictures, ethnic or racial slogans, emblems, and signs of anti-religious sentiments, deviant groups, including rap, heavy metal, or commercial advertisements considered offensive or hostile to the educational environment is prohibited. Any visible tattoos (on lips, eyebrows, eyes, hands, face, etc.) and body piercings such as nose rings are forbidden. Wearing sunglasses in classrooms, patient bedside areas, and clinics (educational environments) is prohibited unless recommended by a physician. The use of any makeup, cologne, or perfume with strong and inappropriate odors in educational environments is forbidden. Having any profile pictures without proper covering or with inappropriate attire on social media is prohibited. Examples of do's and don'ts regarding grooming for women: <ul style="list-style-type: none"> The use of false eyelashes is prohibited. Nail extensions and makeup on the face or nails that attract others' attention and have no therapeutic purpose are forbidden. For hygiene reasons, nails must be kept short and clean. Long nails with sharp edges are prohibited due to the risk of injury to others and damage to equipment. Since nail polish, nail stickers, and artificial nails cause bacterial accumulation, increasing the risk of infection transmission and causing problems when working with sterile equipment, having such nails is prohibited. The inappropriate use of jewelry on the face (such as nose or tooth gems), hands, and feet (such as ankle chains) that contradict university customs is prohibited. However, wearing conventional jewelry and accessories suitable for office and university environments, such as wedding rings or rings, is allowed. Examples of do's and don'ts regarding grooming for men: <ul style="list-style-type: none"> Unconventional hair styling, such as eyebrow removal, bleaching, curling, braiding hair at the back or top of the head, styling hair in a spiky manner, using symbols of specific sects, excessively long hair that falls below the collar, etc., is prohibited. Wearing and displaying any jewelry such as chains, necklaces, bracelets, gold rings, etc. (except wedding rings) in all student and clinical environments is prohibited. Wearing ties and bow ties of any kind is prohibited.

Duke University	<ol style="list-style-type: none"> Regarding appearance / hygiene / grooming: <ul style="list-style-type: none"> Personal cleanliness and hygiene (including bathing and oral hygiene) must be maintained to prevent unpleasant odors. Smoking is prohibited on the Duke University campus and in many other healthcare facilities. Regarding hair (e.g., length, color, etc.): <ul style="list-style-type: none"> Hair must be kept away from the face. Bangs should not cover the student's eyes or mouth. Tied-up Hair (such as a long ponytail) must be kept away from the patient, work area, medications, food, and patient equipment. Hair, including facial Hair, should be neat, well-groomed, clean, look professional, and not interfere with vision or function. Use of plain-colored headbands without decorations to keep Hair in place is allowed. Fancy hair colors (blue, green, purple, etc.) are prohibited. Regarding makeup: <ul style="list-style-type: none"> Makeup should be minimal and conservative. Regarding nails: <ul style="list-style-type: none"> Artificial nails of any kind are prohibited in all departments and clinical units. Nail polish is strictly prohibited in all departments and clinical units. Nails must be trimmed short enough so they do not extend beyond the fingertips. Regarding jewelry and piercings: <ul style="list-style-type: none"> Only a straightforward ring per hand is allowed. Up to two stud earrings per ear are allowed. Dangling earrings and other dangling jewelry are prohibited in all departments and clinical units. Use of any jewelry that stretches or enlarges the ear is prohibited in all departments and clinical units. Students who have stretched ears may use skin-tone or clear plugs to cover their appearance. Visible body piercings are prohibited. Students with nose piercings must use a clear retainer instead. Regarding tattoos: <ul style="list-style-type: none"> If present, tattoos should be covered whenever possible. Regarding fragrances: <ul style="list-style-type: none"> Use of body fragrances such as sprays, perfumes, and colognes should be avoided in departments and clinical units as they may be unpleasant for patients and others or cause allergic reactions. Regarding prohibited items: <ul style="list-style-type: none"> Use of any logos, political buttons, ribbons, bracelets, or other items showing support for a team, political party, or even humanitarian groups is prohibited in departments and clinical units. Students should maintain a neutral appearance, meaning their appearance should not cause stress or be threatening to patients, families, or healthcare team members.
Griffith University	<ol style="list-style-type: none"> Hair must be clean, neat, and well-groomed. Long hair should be tied back and kept away from the shoulders/collar. Clothing must be clean, ironed, neat, and well-presented. The midriff should not be exposed or bare. Sportswear and sweatpants are not permitted. No visible slogans or logos should be on clothing. Long nails, nails with polish/gel, and artificial nails are prohibited. Use of false eyelashes is not permitted. Use of decorative hair clips, barrettes, or headbands is forbidden.
University of British Columbia	<p>According to the evidence-based infection control and patient safety guidelines, nursing students must adhere to the following expectations:</p> <ol style="list-style-type: none"> Regarding hair: <ul style="list-style-type: none"> Hair must be clean and neat. Hair on the head and face should be tied up/enclosed or kept short enough to prevent entanglement. Long hair must be securely tied to prevent contact with patients and equipment. Facial hair (beards) must be kept at a length that allows for artificial respiration using a mask in emergencies. However, students with beards for religious or cultural reasons may participate in internships or practical training with the approval of the department head. False eyelashes must be delicate, intact, and firmly secured in place. Religious head coverings must be securely and safely fastened. Regarding hand hygiene <ul style="list-style-type: none"> Hands and nails must be clean and healthy. Nails must not be longer than the fingertips. Artificial nails, such as acrylic, gel, and polished nails, are not permitted. Nail polish of any color (including transparent/invisible) is not allowed. Regarding fragrances: <ul style="list-style-type: none"> All students are required to avoid using scented products (such as perfume, cologne, and other scented products, including aftershave, lotions, shampoos, conditioners, body washes, deodorants, antiperspirants, laundry products, cleaners, cosmetics, hair sprays, air fresheners, etc.) on themselves and their clothing in all clinical settings.

(D) Conduct Standards in Educational Settings

The standards of student behavior in educational settings at all four universities are generally based on principles of respect for others (especially patients), maintaining confidentiality, and adherence to professional ethics. The previous Iranian regulations emphasized professional ethics, polite speech, prohibition of smoking and chewing gum in educational settings, keeping mobile phones off in classes and during patient rounds, and avoiding arguments or jokes in public areas related to the learning environment. In general, it focused more on general and outward behaviors in educational settings. The new Iranian regulations (2023), with a more comprehensive approach, address patient rights, ethical and professional issues, safety and hygiene, and proper use of equipment. In addition to the measures mentioned in the previous version, it emphasizes:

- Wearing identification cards,
- Separation of male and female classes,
- Respecting patient rights (including obtaining consent before procedures, respecting cultural and religious practices, maintaining confidentiality, and preventing misuse),
- Prohibition of photography without permission,
- Avoiding eating, drinking, or using mobile phones at the patient's bedside,
- Observing religious boundaries,
- Avoiding insults and ridicule,
- Protecting equipment,
- Prohibiting unprofessional clothing over uniforms, and
- Reporting any contagious disease.

Furthermore, it requires the presence of a same-gender companion when examining patients of the opposite sex. The Duke University regulations are very comprehensive and detailed, placing strong emphasis on the ethical, professional, communicative, and behavioral aspects of students in educational and clinical settings. This reflects an evidence-based approach with a focus on the quality of patient care. The university emphasizes principles such as scientific and professional integrity, respect for others, maintaining patient confidentiality, proper self-identification as a student, limiting activities to the scope

of student practice, requesting supervision when needed, adherence to hygiene and safety standards, reporting performance issues, abstaining from alcohol and illegal substances, avoiding unprofessional relationships with patients, compliance with non-discrimination policies, honest communication, respect for privacy, professional appearance, respect for others' time, collaboration with colleagues, refraining from disruptive behavior, prohibition of smoking in all university and clinical facilities, and adherence to professional standards in social media use. In contrast, Griffith University's regulations are brief and general, mainly emphasizing compliance with hospital and educational center rules, maintaining confidentiality, observing the student conduct standards of Griffith University, and awareness of and adherence to relevant policies, codes, and guidelines. It also prohibits informal communication with the clinical training center before the start of the internship. Finally, the University of British Columbia's regulations take a distinct approach by placing special emphasis on mobile phone use. These regulations focus exclusively on responsible and limited use of mobile phones in clinical settings, emphasizing that usage should be restricted to clinical resources, personal use and photography are prohibited, phones must be on silent mode, and adherence to standards for social media and electronic device use is required.

While the new version of Iran's regulations represents a positive step toward improving and making previous codes more comprehensive, it can still draw lessons from Duke University's guidelines in areas such as social media use and management of specific clinical situations. In particular, Duke University's emphasis on professional use of social media and the University of British Columbia's focus on responsible mobile phone use in clinical settings demonstrate attention to emerging challenges and opportunities in educational and clinical environments. Notably, Iran's regulations do not address social media or clarify the boundaries of students' interactions with patients or their families in virtual spaces, which may lead to ambiguities in students' compliance and challenges in oversight and enforcement by authorities (Table 4).

Table 4 Details comparing the professional conduct codes in the area of “conduct standard in educational environments”

University	Conduct standard in educational environments
Iran (Previous version – 2014)	<ol style="list-style-type: none"> 1. Observing professional ethical principles, humility, and modesty in interactions with patients, patient companions, professors, learners, and staff is mandatory. 2. Speaking in educational settings should be calm and polite, and any loud noise or using language inappropriate for the medical profession is prohibited. 3. Smoking is prohibited at all times when present in educational environments. 4. Chewing gum and similar items are forbidden in laboratories, conference halls, patient rounds, and in the presence of professors, staff, and patients. 5. During classes, laboratories, and patient rounds, mobile phones must be turned off; at other times, their use should be minimized to what is necessary. 6. Any arguments or joking in related public areas such as elevators, coffee shops, and restaurants is prohibited.

- Iran (New version – 2023)
1. The identification card issued by the Education Deputy, including photo, first and last name, university logo, field of study, and student/assistant's academic level, must be uniformly worn on the left chest of the uniform so that it is visible.
 2. Classes for male and female students and assistants must be held in two separate rows.
 3. Students and assistants must study and adhere to the approved medical ethics texts to uphold the rights of service recipients and their companions.
 4. Since respecting patients' privacy and mental peace is mandatory for students and assistants in all circumstances, they must obtain the patient's consent before taking history, examination, tests, etc.
 5. If students and assistants observe any procedure that harms the patient or violates clinical and safety regulations, they must report it to the senior clinical officer.
 6. Students and assistants must respect patients' rights in choosing their therapist and treatment method in non-emergency cases.
 7. Students and assistants must respect patients' customs, language, religion, and culture.
 8. Any photography, filming, or audio recording of patients using mobile phones or other devices without the patient's written permission is prohibited.
 9. Students and assistants must not exploit the patients or their families.
 10. Students and assistants must maintain patient confidentiality.
 11. Smoking and the use of other tobacco products are prohibited in university environments (hospitals, dormitories, study halls, sports facilities, cafes, restaurants, etc.) during working hours.
 12. Eating and drinking at the patient's bedside are prohibited.
 13. Use of mobile phones and other audio or visual devices at the patient's bedside is prohibited.
 14. Any inappropriate discussion, jokes, or loud laughter in all clinical environments, especially in front of patients or in public areas, is prohibited.
 15. Raising the volume of mobile phones or other media for sound playback in clinical environments is prohibited.
 16. Observing religious limits in looking and conversing with non-mahram (unrelated) persons and respecting ethical, social, and student decorum in clinical environments is essential. Students and assistants must refrain from actions and behaviors contrary to Islamic, student, and professional ethics.
 17. Chewing gum is not allowed for students and assistants while wearing hospital attire or during conversations and diagnostic or therapeutic interventions with patients.
 18. Use of any drugs or substances that cause abnormal movements or speech in students and assistants is prohibited.
 19. Observing politeness, humility, Islamic ethics, and manners befitting a university individual towards professors and faculty members is mandatory.
 20. Students and assistants must avoid any verbal or behavioral insults, ridicule, disputes, and aggression.
 21. Students and assistants are obliged to use, protect, and maintain the public facilities, equipment, and tools responsibly. They are not permitted to use equipment without coordination with the responsible authority. Warning signs and instructions for use must be observed.
 22. Use of facilities and equipment for personal purposes or for unauthorized parties and groups is prohibited.
 23. Causing damage to property in university spaces, healthcare environments, or other public assets is not permitted.
 24. In hospital wards, wearing any non-professional cover over the approved uniform is prohibited.
 - Note: Using a light-colored chador in educational and therapeutic environments is allowed if it is specifically for use in the treatment setting.
 25. If a student or assistant has a contagious disease, they must inform their senior clinical education officer and observe necessary hygiene principles.
 26. When examining a patient of the opposite sex, a same-sex student or assistant, or the patient's companion must be present alongside the examining student or assistant.
- Duke University
1. In all educational, clinical, and professional settings, students of the Duke University School of Nursing are expected to conduct themselves according to the following principles:
 - Academic integrity
 - Professional integrity
 - Respect for others
 2. Nursing students are expected, in line with professional ethics, to consider the following standards (but not limited to these) in their behavior:
 - Always treat patients, patients' families, and research participants with respect (both in their presence and when discussing them with colleagues).
 - Protect the confidentiality of all personal patient information, whether electronic, paper-based, or communicated verbally.
 - Always introduce themselves as students in clinical settings.
 - Limit all clinical activities to the appropriate scope of nursing students' practice and consult with instructors if any questions arise.
 - Recognize their knowledge and skill limitations in clinical situations and request supervision or advice from instructors when needed.
 - Strongly follow evidence-based principles regarding patient hygiene and safety.
 - Organize their behavior in clinical environments to improve the quality of patient care.

- Recognize any potential or actual impairment in their ability to perform safely and effectively in clinical settings (due to fatigue, illness, or other factors) and notify a responsible individual if needed.
 - Refrain from consuming alcohol or illegal substances that could impair patient care or personal/professional interactions with other healthcare providers.
 - Avoid engaging in romantic, sexual, or other unprofessional relationships with patients.
3. Nursing students are expected, in line with respect for others, to consider the following standards (but not limited to these) in their behavior:
- Treat everyone with respect according to Duke University's policies on non-discrimination and harassment.
 - Respect patients with cultural backgrounds different from their own.
 - Respect the rights of patients, patients' families, and research participants to be informed about and participate in decisions regarding the nature and extent of healthcare services received.
 - Communicate honestly with patients and colleagues in all clinical settings and avoid distorting facts.
 - Respect the modesty and privacy of all patients and research participants.
 - Maintain a neat and professional appearance in accordance with the clinical center requirements and the School of Nursing policies.
 - Respect the time of patients, families, research participants, and healthcare colleagues in all clinical settings by avoiding late arrivals and early departures.
 - Behave considerately, politely, and cooperatively with all colleagues and peers when performing clinical interventions and delivering healthcare services.
 - Maintain civil and professional behavior in classrooms, laboratories, clinics, hospitals, and all healthcare environments, and avoid disruptive or aggressive conduct.
4. Tobacco use is prohibited in all Duke University academic and healthcare facilities (including the School of Nursing, hospitals, clinical teaching centers, campuses, pathways such as sidewalks and streets, and parking lots).
5. The Duke University School of Nursing recognizes and supports students' professional use of social media. Accordingly, all students are expected to adhere to the following professional standards in all interactions and consider the following when using social media:
- Protect confidential and sensitive information and refrain from sharing confidential information regarding the university, staff, students, clinical facilities, patients, or others affiliated with Duke School of Nursing.
 - Students must familiarize themselves with the social media policies of each clinical setting.
 - Students should not accept friend requests from patients or their families unless under exceptional circumstances and if there was a relationship prior to treatment.
 - Students must not disclose patient information in online conversations with patients, their families, or others.
 - Activities occurring during clinical experiences should not be shared on social media (including but not limited to posting images of patients, families, medical records, healthcare staff, clinical facility interiors, faculty members, classmates, etc.).
 - Students must comply with copyright laws and other intellectual property rights of others and the university.
 - The Duke University School of Nursing's logo, emblem, or graphics should not be used on personal social media pages or to promote/endorse a product, cause, political party, or candidate.
 - Personal phone calls, texting, or social media use are strictly prohibited in patient care areas or classrooms.
 - Recording or filming instructors, students, staff, or educational activities for personal use or social media is prohibited unless explicit permission is granted by the individuals involved.

Griffith University

During the internship period, students are expected to:

1. Follow the rules, regulations, and policies of the clinical training center.
2. Maintain confidentiality and privacy regarding any information they may receive from the clinical training center during the internship.
3. Adhere to the professional standards of appropriate student behavior at Griffith University.
4. Know how to access relevant policies, professional codes, and guidelines, understand these documents, and act accordingly.
5. Avoid establishing any informal communication or conversations with the clinical training center or its staff before the start of the internship (unless explicitly stated during the pre-internship briefing).

University of British Columbia

Today, the use of mobile phones to access nursing resources is supported in many clinical environments. Students must always be responsible and accountable for the proper and appropriate use of mobile phones in clinical settings and adhere to the following expectations:

1. Mobile phone use is strictly limited to accessing clinical resources.
2. Use of mobile phones for personal information or communications is strictly prohibited.
3. Photography is strictly forbidden.
4. Mobile phones (all sounds and notifications) must always be set to silent mode.
5. Mobile phones may be carried in uniform pockets but must be kept separately.
6. Compliance with the standards for the appropriate use of social media and the proper use of electronic devices by students is mandatory.

(E) Monitoring and Enforcement

In all four universities, monitoring the implementation of professional dress codes and following up on violations is conducted to maintain professional standards and create an appropriate environment for learning and patient care. The previous version of Iran's regulations primarily emphasized the role of the hospital's educational deputy, department chair, head of the ward, and educational and student affairs officers in overseeing compliance. The initial approach involved giving warnings and, in case of continued violations, referring the matter to the disciplinary council.

In contrast, the supervisory system in the new version has evolved compared to the previous one and adopts a more comprehensive approach. In this version, faculty members are directly responsible for observing and grading students' or interns' professional dress and behavior. Ultimately, based on the aggregated scores from various faculty members, a "Professional Dress and Behavior Report Card" is issued for students and interns. Additionally, the supervisory structure for addressing unaware or noncompliant students and interns involves a multi-step approach, including warnings, counseling, and ultimately referral to the student disciplinary council. However, the lengthy bureaucracy may slow down the process of handling violations and reduce the efficiency of this system.

In contrast, Duke University adopts a stricter approach. Non-compliance with the regulations can result in the student being removed from the clinical environment and required to make up that day; repeated violations may even lead to the failure of the course. The university

also notes that clinical/healthcare centers have their own specific requirements regarding professional dress.

Similarly, Griffith University considers removal from the placement site as one of the consequences of non-compliance and treats any behavior deemed unprofessional as subject to disciplinary action. British Columbia University also regards failure to meet the standards as grounds for revoking the student's placement privileges, which can result in missing the clinical session and even failing that course.

By comparing the supervisory approaches, it can be observed that Duke University, the University of British Columbia, and Griffith University adopt a more direct, faster, and decisive approach with more serious consequences for violations. Non-compliance with regulations can lead not only to removal from the clinical placement but also directly affect the student's academic progress.

In contrast, the new Iranian regulation employs a more gradual approach, using the issuance of a "Professional Dress and Behavior Report" and referral to the Counseling and Mental Health Office of the Student and Cultural Affairs Department to comprehensively evaluate students' professional behaviors and correct any conduct that violates the regulations. Disciplinary action is only taken at later stages and, in case of repeated violations, is handled by the Student Disciplinary Board.

These differences may stem from organizational structure, the prevailing culture at each university, and the educational system of each country and institution (Table 5).

Table 5 Details of the comparison of professional dress codes regarding "monitoring and enforcement" are provided in Appendix

University	Methods of monitoring and enforcement
Iran (Previous version – 2014)	<ol style="list-style-type: none"> Supervision of adherence to the principles of the executive regulations on professional dress and ethics in teaching hospitals and other clinical medical training environments is the responsibility of the hospital's educational deputy, department head, section chief, and the relevant academic and student affairs experts. Individuals who do not comply with professional ethics and the principles of these regulations are initially given a warning, and if they persist in the violation, they are referred to the student disciplinary council.
Iran (New version – 2023)	<ol style="list-style-type: none"> Reviewing reports of non-compliance/violations of professional behavior and dress code by students and residents is assigned to the Student Disciplinary Council, which operates under the university's Student and Cultural Affairs Office. In the executive guidelines for professional behavior and dress of medical students and residents, a faculty member is primarily responsible for grading the students'/residents' professional dress and behavior. As the individual who can observe the student's/resident's behavior for the most extended duration, besides the academic grade at the end of each semester, the faculty member also assigns a score for professional dress and behavior. Ultimately, based on the aggregation of scores from different faculty members for students and residents, a "Professional Dress and Behavior Report Card" is issued. The method of warning unaware or violating students and residents includes the following steps: <ul style="list-style-type: none"> Step 1: Sending a text message from the secretariat of the Student Disciplinary Council to the violating student/resident. Step 2: Issuing a polite and clear verbal warning to those who do not comply with the dress code and ethical standards. Step 3: If the verbal warning is ignored, the student/resident is referred to the Counseling and Mental Health Office of the university's Student and Cultural Affairs. Step 4: If the verbal warnings and counseling recommendations are disregarded, the student/resident is referred to the Student Disciplinary Council for file formation.

Duke University	1.	Suppose a student's uniform/clinical appearance does not comply with the organization's policies/guidelines. In that case, the student may be dismissed from the clinical setting by the faculty member, course coordinator, clinical instructor, and/or the organization. In this case, a compensatory day of internship or practicum will be required.
	2.	Repeated violations by the student regarding non-compliance with the uniform/professional dress code in clinical departments or units will result in course failure.
	3.	Students' uniforms and attire must present a professional appearance.
	4.	Clinical/health centers enforce other requirements related to the professional dress code for nursing students.
Griffith University	1.	If nursing students do not comply with the uniform requirements and do not maintain a professional and appropriate dress code, they may be dismissed from the internship site.
	2.	Any behavior deemed a violation of the expected professional conduct can lead to disciplinary actions.
University of British Columbia	1.	Students whose appearance does not meet university standards and who do not wear the standard uniform are not allowed to attend the internship site and must leave the site to take corrective actions regarding their dress/appearance.
	2.	Missing an internship or practicum session may result in the student's inability to achieve the practical competencies required for the internship or practicum. It therefore may lead to their failure in that course.

4 Discussion

The main objective of the present study was to compare the professional dress codes for nursing students in Iran with those at Duke University (USA), Griffith University (Australia), and the University of British Columbia (Canada) across five domains:

- Objectives of the professional dress code regulations,
- Clothing and professional appearance,
- Personal hygiene and grooming standards in educational settings,
- Student conduct standards in educational settings, and
- Monitoring and enforcement.

Objectives of the Professional Dress Code Regulations

Regarding the first domain under comparison, "Objectives of the Professional Dress Code Regulations," it should be noted that clearly defining the objectives of a regulation significantly influences individuals' compliance and adherence to it. When people understand the goals of a regulation or guideline, they are more likely to follow it. Therefore, it is essential that the objectives of a regulation be explicitly and clearly stated.

In the new Iranian regulation (2023), unlike the previous version (2014), the objectives are explicitly articulated. However, a notable point regarding the new Iranian regulation is its emphasis on "rituals" rather than on the "objectives, meanings, and professional knowledge" of the regulation. Considering the socio-political context of Iranian society, this may sometimes lead to a misinterpretation of the regulation's content. In other words, the professional dress codes may be perceived not as "examples of professional behavior to achieve professional standards in appearance and

attire" but rather as "examples of hijab to meet religious requirements in appearance and dress," which can create ambiguity regarding nursing students' compliance with the regulation.^[25]

In contrast, Western universities, while providing more detailed guidance on attire, personal hygiene, and expected behaviors, adopt a more comprehensive and evidence-based approach. They emphasize the impact of professional dress codes on factors such as infection control, patient safety, creating a positive professional image, professional identity, professional behavior, and facilitating recognition and cleanliness by patients and colleagues.^[21,26,27] Professional attire is thus presented as a powerful form of non-verbal communication.^[28,29]

Clothing and Professional Appearance

Regarding the second domain under comparison, "Clothing and Professional Appearance," it can be stated that, despite differences in thought, belief, religion, and ethnicity, all four universities emphasize the necessity of:

- Wearing standard, conventional, simple, and non-tight attire with appropriate length and size;
- Displaying a student ID card or badge throughout internships and clinical rotations;
- Keeping all buttons of the uniform or lab coat fastened;
- Prohibiting the use of large or dangling jewelry and visible piercings;
- Prohibiting the use of symbols unrelated to the medical profession;
- Prohibiting slippers and open-toed shoes in clinical areas (except in operating rooms and delivery rooms).

The first notable point is that, unlike the professional dress codes of other universities, which are specifically designed for nursing students, the new Iranian regulation is generalized for all clinical disciplines and is therefore

not specific to nursing.

Furthermore, while the Iranian regulation emphasizes full and more formal attire, Duke, Griffith, and British Columbia universities have adopted scrubs or more comfortable clothing as the main uniform for nursing students. It seems that the policymakers at Duke, Griffith, and British Columbia, compared to Iran, have placed particular emphasis not only on infection control, patient safety, maintaining a positive professional image, professional behavior, and facilitating recognition and cleanliness by patients and colleagues^[21,26,27] but also on ensuring students' comfort while performing clinical duties and providing care to patients.

Observing cultural and religious considerations in the domain of attire and dress code within nursing students' professional dress codes is another important issue. At Griffith University, this is addressed comprehensively and separately under the section titled "Cultural Considerations," while at Duke University and the University of British Columbia, it is considered through specific elements and standards.

In contrast, in Iran, despite the presence of domestic and international students with diverse cultures, religions, beliefs, and ethnicities, these considerations are not explicitly addressed in the regulation. Instead, the regulation solely emphasizes the need for attire to comply with the Islamic Sharia, Islamic and national culture, and the dignity and norms of the university.

It is recommended that, in order to respect the cultural and religious differences of students and to increase their satisfaction and compliance with the professional dress code, a section on cultural and religious considerations be added to the Iranian regulation. This would enable the implementation of professional dress standards without compromising students' cultural and religious beliefs.

Furthermore, the experiences of universities in Malaysia in integrating cultural and religious standards with professional standards in formulating nursing professional dress codes in Islamic countries could serve as a model for revising the Iranian nursing students' dress code and developing a modern regulation aligned with the country's Islamic legal framework.^[30-32]

Personal Hygiene and Grooming Standards in Educational Settings

Regarding the third domain under comparison, "Personal Hygiene and Grooming Standards in Educational Settings," the results showed that all four universities emphasize personal hygiene and cleanliness, restrictions or prohibitions on certain cosmetics and jewelry, and the prohibition of artificial nails, nail polish, and strong fragrances in order to achieve two main goals:

1. Maintaining professional decorum and fostering trust among patients and the healthcare team.
2. Preventing infection transmission and creating a

hygienic and safe environment for patients and staff.

The provisions designed to achieve the first goal (maintaining professional decorum and fostering trust among patients and the healthcare team) in the reviewed regulations are consistent with the findings of Sotgiu et al. regarding patients' and families' preferences for doctors' appearance in Italy. That study showed that patients and families consider long hair, tattoos, and body piercings, and excessive makeup for female doctors to be unprofessional and a breach of trust.^[33]

On the other hand, the prohibition and restriction of jewelry and accessories on the hands is one of the key components of personal hygiene and grooming standards in educational settings, aimed at achieving the second goal: preventing infection transmission and creating a hygienic and safe environment for patients and staff. This aligns with the "Bare Below the Elbows (BBE)" approach, which is an effective strategy for hand hygiene and patient safety.

This approach, which is also emphasized in the professional dress guidelines for nursing students at Griffith University, highlights the necessity for all healthcare providers to have bare hands below the elbows, free of any jewelry or accessories (except for a wedding ring), with clean and healthy skin, short and unpolished nails, no artificial nails, and no wristbands when at the patient's bedside.^[34,35] However, the lack of exceptions for students from different cultural or religious backgrounds poses a potential challenge to accommodating cultural considerations.

Moreover, patients and their families tend to perceive healthcare providers wearing white coats as more professional and trustworthy compared to those wearing scrubs.^[36-40]

On the other hand, the growing popularity of artificial nail extensions due to their stylish appearance among young female healthcare providers has made the implementation of the BBE (Bare Below the Elbows) approach largely effective in addressing this issue in Western countries. However, considering cultural and religious limitations and the impracticality of implementing this approach for women in Iran, it appears that emphasizing the increased risk of hospital-acquired infections from artificial nails, along with continuous monitoring of students' adherence to the ban on artificial nails in healthcare settings, could help mitigate the problem.^[41]

Additionally, according to the professional dress code in Iran and at Duke University and the University of British Columbia, the use of fragrances such as sprays, perfumes, and colognes in clinical settings is prohibited due to the potential for causing allergic reactions or discomfort for patients and others. Supporting this, the study by Katerina et al. (2016) demonstrated that the use of perfumes and scented products can lead to adverse effects, including migraine headaches, asthma attacks, neurological

(cognitive) issues, respiratory problems, skin reactions, gastrointestinal, cardiovascular, and musculoskeletal complications, particularly among children and adults. Therefore, the use of scented products in care and treatment centers is prohibited.^[42,43]

Student Conduct Standards in Educational Settings

Regarding the fourth domain under comparison, “Student Conduct Standards in Educational Settings,” while the new Iranian regulation represents a positive step toward improving and making previous codes more comprehensive, it can still benefit from Duke University’s guidelines in areas such as the use of social media and the management of specific clinical situations. In particular, Duke University emphasizes professional use of social media, and the University of British Columbia emphasizes responsible use of mobile phones in clinical settings, reflecting attention to modern challenges and opportunities in education.

A growing body of evidence indicates that mobile phone use among nurses and nursing students is a significant source of distraction and interruption during clinical practice. Such distractions have been linked to several adverse outcomes, including medication administration errors, reduced continuity of care, particularly when inattention occurs during shift handovers; and diminished quality of nurse-patient communication resulting from reduced attentiveness. In addition, inappropriate or excessive mobile phone use may jeopardize patient safety by hindering the accurate collection of essential clinical information. Furthermore, improper engagement with social media platforms poses risks to patient confidentiality and may lead to violations of patient rights through the disclosure of sensitive or identifiable health information.^[44–47] On the other hand, a 2024 review study aimed at examining the prevalence of smartphone addiction among nursing students and its contributing factors showed that more than half of nursing students spend about five hours per day on their smartphones, and 42% check their phones approximately 10 times per day. Consequently, continuous smartphone use in clinical settings can disrupt patient care processes and communication. Moreover, smartphone addiction can lead to social alienation, negatively affecting the social skills and professional development of nursing students, as well as their interactions with peers, families, and patients.^[48] Considering that smartphone and social media use are increasingly intertwined with the daily personal and professional lives of nursing students, and given the emergence of AI and practical medical applications, the role of smartphones and social media in facilitating student learning in clinical settings cannot be ignored.^[44] Therefore, it is necessary for the Iranian professional code of conduct for nursing students to explicitly address smartphone and social media use in clinical settings,

clearly define boundaries and appropriate uses, and specify the limits of interactions and communications between students and patients or their families in virtual spaces.^[46]

Monitoring and Enforcement

Finally, regarding the fifth domain under comparison, “Monitoring and Enforcement,” it can be stated that Duke University, the University of British Columbia, and Griffith University adopt a more direct, faster, and stricter approach with more serious consequences for violations, so that non-compliance with the code can not only result in expulsion from the clinical placement but also directly affect the student’s academic progress.

In contrast, the new Iranian code of conduct employs a gradual approach through the issuance of a “Professional Appearance and Behavior Report” and referrals to the Student Counseling and Mental Health Office of the University’s Student and Cultural Affairs. This method allows for a comprehensive assessment of students’ professional behavior and the correction of any conduct considered a violation of the code. Handling of repeated violations is subsequently referred to the Student Disciplinary Council.

These differences may stem from the organizational structure, prevailing university culture, and the educational system of each country and institution. Two points are particularly noteworthy in the Iranian clinical educational environment.

The first point relates to the existence of a “gap between the provisions of the code and its practical enforcement.” This means that, in most cases, a subjective and cautious approach, both at the level of the individual responsible for monitoring and scoring professional appearance and behavior, and at the organizational level responsible for overseeing compliance and addressing uninformed or noncompliant students hinders the decisive enforcement of the code’s provisions.

The second point concerns the existence of “dual standards” in monitoring and addressing uninformed or noncompliant nursing students compared to students of other disciplines, particularly medical students. This can create a sense of injustice, discrimination, and dissatisfaction among nursing students and, in some cases, may even lead to deliberate noncompliance with the code’s provisions.

It should be noted that dual standards are a common problem in many developing countries, and if they occur repeatedly, they can result in “lack of standards”.^[49] Considering that one of the major causes of dissatisfaction within an organization is the absence or lack of organizational justice, which can disrupt professional interactions and relationships,^[50] monitoring adherence to the professional dress code must be conducted fairly. On the other hand, based on the critical review and

comprehensive analysis conducted, it appears that the main challenge regarding the professional dress code for nursing students in Iran is not in its overall content, but instead in how it is communicated, justified, and enforced.

Moreover, nursing students in Iran misperceive the code as being significantly stricter than those in other countries and view it primarily as a tool to enforce religious attire rather than professional dress.

In this context, the Theory of Reasoned Action largely explains the extent to which nursing students comply with the professional dress code through their behavioral intention, which is shaped by their attitudes and subjective norms. Students' attitudes are directly influenced by their beliefs about the outcomes of following the professional dress code. For instance, students who believe that adhering to the code enhances professionalism, strengthens patient trust, and projects a positive image of the nursing program are more likely to comply. Conversely, students who perceive compliance as restrictive, uncomfortable, or a barrier to self-expression may resist following the code.

Similarly, students are influenced by their perceptions of the viewpoints of significant others regarding the professional dress code. In other words, subjective norms, which reflect perceived social pressures, significantly impact student behavior. When instructors, department heads, head nurses, clinical supervisors, and peers consistently support adherence to the professional dress code, positive subjective norms create a strong motivation for compliance, and students are more likely to follow the code.

Conversely, a lack of perceived social support or visible neglect weakens this pressure. For example, if peers routinely ignore the provisions of the professional dress code without facing any negative consequences, students may feel less compelled to comply.

Ultimately, the Theory of Reasoned Action indicates that nursing students' decisions to comply with the professional dress code are the result of their personal beliefs about the code as well as the perceived social pressures surrounding it. By understanding these factors, nursing instructors and administrators can take effective steps to develop strategies that enhance compliance with the professional dress code.^[51]

5 Conclusion

Overall, the professional dress code for nursing students in Iran remains less comprehensive than those implemented at Duke University, Griffith University, and the University of British Columbia. Although the revised Iranian dress code (2023) represents a notable improvement over its earlier version (2014) and addresses a broader range of requirements, further refinement is

warranted. In particular, the Iranian guideline could benefit from incorporating elements emphasized in international policies, including stronger practical and safety considerations, more detailed and precise specifications, evidence-based recommendations related to infection prevention and patient safety, guidance on the responsible use of social media, and clearer directives for managing specific clinical scenarios.

In particular, Duke University's emphasis on professional use of social media and the University of British Columbia's focus on responsible mobile phone use in clinical settings highlight attention to emerging challenges and opportunities in educational and clinical environments.

Additionally, incorporating a section on cultural and religious considerations in the Iranian code appears necessary to respect students' diverse cultural and religious backgrounds and to enhance their satisfaction and compliance with the professional dress code.

Finally, considering differences in organizational structures, prevailing university cultures, and national educational systems, the gradual approach of the Iranian code in handling violations, compared to the more decisive approach of foreign universities, seems more appropriate and compatible with the conditions of clinical educational settings in Iran.

Given the evolution of technology and practice, it is recommended that the professional dress code be reviewed every four years, similar to the curriculum, taking into account scientific evidence and stakeholder feedback. Furthermore, familiarizing nursing students with the standards, strict regulations, and close supervision in foreign universities can help deconstruct misconceptions and stereotypes about professional dress. Ultimately, the existence of a precise and fair supervisory system for enforcing ethical standards and professional dress, free from discrimination, can effectively improve the compliance of today's nursing students and, in turn, the professionalism of tomorrow's nurses.

Based on the findings of the present study, it is recommended that future research focus on:

1. Exploring the perspectives of nursing students, faculties, and administrators regarding existing professional dress codes and identifying strategies to improve them.
2. Examining the impact of these codes on clinical outcomes, such as the incidence of hospital-acquired infections and patient satisfaction, to better understand their influence on the quality of nursing care.
3. Investigating the role of these codes in nursing students' learning and performance in clinical settings which is essential for optimizing educational outcomes.
4. Considering the influence of cultural and religious

factors in the development and implementation of dress codes, which can guide the creation of contextually appropriate and culturally sensitive policies.

5. Studying the role of social media and mobile phone use in shaping professional behavior among nursing students in clinical environments, providing valuable insights for policymakers and nursing education managers.

These avenues of research could help refine professional dress codes and enhance both educational and clinical practices in nursing.

Limitations

This study had several limitations that restrict the generalizability of its findings.

First, due to the breadth of the topic and time constraints, the universities examined were limited to those in developed Western countries, which reduced sample diversity and limited the applicability of the results. Future studies are recommended to conduct comparative analyses of professional dress codes for nursing students in universities of neighboring, Eastern, or Islamic countries to provide a more comprehensive perspective. Second, retrieving relevant content on professional dress codes from Duke University proved challenging. Unlike the separate and organized codes in the universities of Iran, Griffith, and British Columbia, the relevant content at Duke was dispersed across multiple sections of the nursing student handbook. To mitigate this limitation, two researchers independently extracted the content.

Finally, the study relied on a content analysis approach and did not examine the perspectives of stakeholders (students, faculty, and nursing administrators) regarding professional dress codes. Future research could employ qualitative or mixed-methods approaches to explore stakeholders' views and provide deeper insights.

Declarations

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Artificial Intelligence Disclosure

The authors affirm that no generative artificial intelligence (AI) tools were used in the conception, design, data collection, analysis, interpretation, or writing of this manuscript. All sections of the study were developed exclusively through the authors' own scholarly work. Standard software tools (e.g., reference managers, statistical packages, and word-processing programs) were used only for their conventional functions and not for any AI-assisted content generation. The authors take full responsibility for the accuracy, integrity, and originality of the manuscript.

Authors' Contributions

Amin Soheili and Golshan Moghbeli conceptualized the study; Amin Soheili, Golshan Moghbeli, Mahsa Khalkhali, and Abbas Ebadi designed the study and formulated the research question; Golshan Moghbeli and Mahsa Khalkhali collected the data; Amin Soheili, Golshan Moghbeli, Mahsa Khalkhali, and Abbas Ebadi conducted the data analysis and prepared the original draft; and Amin Soheili, Golshan Moghbeli, Mahsa Khalkhali, and Abbas Ebadi reviewed and edited the manuscript. All authors read and approved the final version.

Availability of Data and Materials

The data supporting the findings of this study are available upon request from the corresponding author.

Conflict of Interest

The authors declare no conflict of interest in the preparation of this study.

Consent for Publication

Not applicable.

Ethical Considerations

The present study was conducted as part of an approved research project by the Health System Research (HSR) Council and the Regional Ethics Committee of Khoy University of Medical Sciences under the Code of Ethics IR.KHOY.REC.1404.014. Financial support was provided by the Deputy of Research and Technology of Khoy University of Medical Sciences. The authors express their sincere appreciation to all colleagues and staff who contributed to data collection and preparation of study materials.

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