



## Original research

## Educational experience of male students in a baccalaureate nursing program in China

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## ABSTRACT

Hampered by culture norms and social values, the proportion of male nursing students in China is low. Their learning experience will add weight to culturally valid nursing education. This study explored Chinese male nursing students' educational experience in a baccalaureate nursing program. A qualitative approach was used, with a purposive sample of 14 participants. Data were collected through semi-structured interviews and analyzed for thematic content. Four theme clusters emerged from the findings: choosing nursing as a career, challenges to studying nursing by gender, dilemma to nursing profession and personal benefits of studying nursing. Most of the participants passively chose nursing major. The data provided evidence that Chinese culture hindered male engaged in nursing. Low admission scores of nursing in NCEE provide an opportunity to recruit male student. Positive aspects of gender neutral portrayal of nursing help to recruit more male nursing students.

## 1. Introduction

Florence Nightingale believed nursing was a natural extension of virtuous womanhood and every woman was a nurse (Nightingale, 1969). Since then the style of educational was based on these beliefs. Nursing workforce has consistently been dominated by females (Hollup, 2014). Compared with their female colleagues male nurses have certain advantages such as superior physical strength, technical prowess and cool-headedness because of perceived masculinity (Evans, 1997). Ideally the nursing workforce mirrors the population they serve. Male nurses can increase the diversity in the nursing which would promote a culture of inclusion that could benefit patients. However, male nurses need to overcome multiple challenges unique to their gender. Stereotypes, academic acceptance and role support are the specific barriers keeping men choice of nursing (Ashkenazi et al., 2017; Sayman, 2015). In the USA men represent 9.4% of the nursing workforce (Yang et al., 2017). Men account for 5.8% of nurses in Canada, 10% in the UK, and 4.9% in Japan (Feng et al., 2016). In China the proportion is even lower with only 2.0% of nurses being male in 2016 (NHFPC, 2016).

There is a shortage of nurses in most countries (Abhichartitbutra et al., 2017). Nurse shortages have a negative effect on the delivery of quality care (Chang et al., 2015). The challenge for nursing shortages is to attract more men to be part of the profession (Wu et al., 2015). Nevertheless, socioeconomic and cultural conditions impact on male

nurse recruitment. Male nurses have not gained full social acceptance by the public; thus, men are reluctant to take up nursing as an occupation (Chen et al., 2013). Although the proportion of male nurses is low, the attrition rate of them is twice as high as that of female nurses (Rajacich et al., 2013). In addition, female worldview in nursing education program increase the attrition rates of male nursing students (Meadus and Twomey, 2011). Nursing school is the first place men are likely to experience nursing in the professional sense and serves as the first route to socialize new nurses into the profession. Males identified that the curriculum is geared toward female learners, and textbooks are filled with depictions of female nurses (Rajacich et al., 2013). Professional identity is positively correlated with professional stability (Tinkler et al., 2018). It is important to have an understanding of why men enter into nursing and what they experience in a nursing education program.

Traditional Chinese culture has its roots in Confucianism and therefore the social values of China are very different from Western countries. Sexual propriety is an important issue in the tradition culture of China, as the Chinese idiom goes that it is improper for men and women to touch each other's hand when passing objects. In the West, male nurses are offered more opportunities and autonomy to take care of female patients, whereas Chinese male nurses are greatly oppressed by traditional culture norms (Chan et al., 2014). Gender role and social identity are constructed by culture (Hollup, 2014). People living in

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Chinese patriarchal society have insisted that nursing is a female occupation and male should not be engaged in nursing. Influenced by traditional Chinese gender role of breadwinning men and homemaking women, males are taught to seek success in their professions and reluctant to engage in nursing. Chinese nursing schools, particularly baccalaureate nursing programs, encounter much more difficulties in recruiting and retaining male students compared to the West. The educational experience of male students in the West may not necessarily be applied in China.

The purpose of this study was to examine Chinese male nursing students' perceptions of both positive and negative experiences in a baccalaureate nursing program. Some specific elements of Chinese culture will contribute to a unique male educational context of nursing. Perceptions of nursing impact the decision of Chinese male nursing students whether to continue in or withdraw from nursing programs. A better understanding of the learning experiences and needs of male nursing students in China will add weight to culturally valid nursing education directions. Insight gained from this inquiry will benefit the healthcare system by providing policy makers and nurse educators working with male students as well as recruitment officers changing educational and cultural stereotypes. This study would benefit to encourage more men to be part of the nursing profession.

## 2. Method

### 2.1. Design

A qualitative descriptive approach was used to explore the male nursing students' perceptions of the educational experience in a baccalaureate nursing program. Data were collected by semi-structured interviews and analyzed by thematic content analysis. The findings of this paper explored why students choose nursing as a career and their experiences of nursing education.

### 2.2. Participants

A purposive sample of male nursing students was recruited from four-year undergraduate nursing program in a "Double First-Class" university in Kaifeng, China. In the first three years they study nursing courses at school and practice in the hospital for the whole fourth year. The final sample consisted of 14 participants. Three students were freshman, and three were sophomore, and four were junior and four were senior. The participants' ages ranged from 19 to 24, with an average age of 21.29. Five came from metropolitan, and nine from rural. All of the participants were not married.

### 2.3. Data Collection and Analysis

The interviews included semi-structured, open-ended questions to elicit students' personal experiences such as: (a) how and why do you choose a nursing program? (b) What were your family members or peers perceptions of a nursing major at that time? (c) What are your insights about men studying nursing? What are advantages or difficulties during your study? (d) What are your future career plans? What factors influenced your decision to stay or leave? The interviews were conducted with each of the participants in a private room at the university and lasted from 60 to 90 min. With the permission of the participants, the interviews were digitally recorded to boost the accuracy of transcription. Data were collected until saturation was achieved.

The digital recordings were transcribed verbatim after the completion of the interview. To ensure the credibility of the entire transcript, all the transcripts were checked for accuracy by both researchers. Thematic content analysis including reading transcripts, open coding, creating categories and refining themes was employed in data analysis (Elo and Kyngäs, 2008). To augment the data consistent, two independent qualitative researchers verified the findings of the interview

data analysis. Credibility was established through bracketing, reflective thought, data immersion, peer discussions, and use of direct quotations. Information was repeated and clarified with participants after the interview.

### 2.4. Ethical consideration

This study was granted ethical approval from the researchers' institution. Participation was voluntary, and the purpose and procedures of the project carefully explained. To protect anonymity each participant was represented by number in the order of interview rather than their names. This made them feel that their anonymity would be preserved. The digital voice data were saved anonymously on a computer and access to the data was only authorized to the investigator.

## 3. Results

Four main themes related to educational experiences of Chinese male nursing students were discovered from the analysis of the interview transcriptions: (1) choosing nursing as a career, (2) challenges to studying nursing by gender, (3) dilemma to nursing profession, and (4) personal benefits of studying nursing.

### 3.1. Choosing nursing as a career

Most of the participants admitted they chose nursing not willingly but rather passively. Only four students chose nursing as their first-choice major in college entrance voluntary form. The other ten participants passively selected nursing through major adjustment or others' opinion. Summarizing the findings, two elements were found for male students to enter nursing: actively choosing nursing and passively choosing nursing.

#### 3.1.1. Actively choosing nursing

A few participants had family members working in healthcare, which had dynamic influences on their major selection. By being exposed to knowledge regarding nursing through family members and exposure to work experience, participants became more intrigued with nursing. This theme was expressed in the following quotations:

I was interested in healthcare from childhood because my grandpa is a doctor of traditional Chinese medicine and it was a big influence. I felt my grades were not good enough to enter medicine after National College Entrance Examination (NCEE). Naturally, I chose nursing that is closely related to medicine. (Participant 3).

My mum and dad were all doctors. It was so hard for me to be a successful doctor because I knew the contexts of medical courses and found it challenging. I was not smart enough for medical school, and then I decided on becoming a nurse. (Participant 5).

#### 3.1.2. Passively choosing nursing

College admission in mainland China is determined solely by an individual's NCEE score. Students who preferred to study at a specific university but do not achieve adequate NCEE scores to be accepted at their preferred university along with their preferred major must allow the university to adjust the major according to their score rank. Under such circumstances they accept the assigned nursing major as the only opportunity to enroll in their preferred university, even if they never had nursing in mind as a career. The students shared:

I was enrollment in liberal arts in high school and interested in education major. My NCEE score was nowhere near good enough and I was missing from my original major choice. I had regrets when I received the admission letter from school of nursing. (Participant 7).

The whole family thought male nurses represent a scarce resource in China. Choice of nursing will offer me access to job opportunities, so my family advised me to choose nursing major. In fact, I don't know the nature and mission of the nursing. (Participant 11).

### 3.2. Challenges to studying nursing by gender

Men entering nursing schools face many challenges. They must cope with gender stereotypes, the lack of male role models, social isolation, and endure teaching strategies which are mainly aimed towards female learners (Jerardi et al., 2010; Kelly et al., 1996). Challenges for Chinese male nursing students were summarized as follows: lack of motivation, academic pressure and social bias.

#### 3.2.1. Lack of motivation

Most of the participants were unanimous in describing nursing school as busy, exhausting, stressful and much more difficult than they anticipated. This theme was expressed in the following quotations:

I never thought of choosing nursing as my vocation before receiving school of nursing admission letter. I found some male students did not enroll on time at the start of the academic year and a classmate of mine adjusted major. At that time I was more irritable, very evidently in a nervy state and was perplexed about what to do for my future. (Participant 2).

Our classmates were dominated by females. As a minority in the classroom I had no idea who to talk to so I always sat in the last row of the classroom. I felt sometimes provoking a reaction against nursing and even reluctant to go to class. I just pass the examination on the line and do not need a really high score. (Participant 13).

#### 3.2.2. Academic pressure

Students explicitly conveyed several academic difficulties they encountered throughout the course of their study. These included heavy schedules, heavy study loads, pressure for examinations, and unpleasant clinical experiences. This was evident in expressions such as:

The credit hour system is too complicated for me when I register courses online. I'm not sure what courses I should choose. Daily studying consumes most of my time and effort and diminishes my chances of maintaining an active school life. Exams are difficult and I can't fall asleep when the exam comes. (Participant 6).

Being not very good at science subjects I selected liberal arts in high school. Now some science subjects like biochemistry were difficult for me to comprehend so my grade point average remains poor. In general, as a visible minority because of gender our lectures often call me name when no people answer the question. I should pay more attention and know what the answer is. This makes me stressful! (Participant 7).

Clinical rotations are both opportunity and challenge for me. On the one hand I can integrate theory learning with practice setting, but on the other I hold people's lives for the first time in my life. Nursing theory education differing from the realities of nursing the transition from school to clinical settings is a central stressor for me. (Participant 12).

#### 3.2.3. Social bias

Nursing is viewed as a feminine profession and has a dearth of male role models, even in modern society. In general, society does not identify positively with male nurses. Male nursing students feel being awkward, distrustful and depressed. Social bias was demonstrated in the following excerpts:

Most of my relatives or friends think nurse only do some work like dispensing medicines, giving an injection and measure the blood pressure. They associate the female stereotype with nursing. They cannot imagine how could a big man be recruited to be a nurse and suggest me change my major. I reluctantly disclose to anyone my major is nursing. To avoid embarrassment I tell other people that I am a medical student. In China, it is generally agreed that nursing is a part of medicine. (Participant 2 and 10).

Almost all the nursing school lectures are female. Clinical faculty members are also such a situation. The male nurse image is very rare in the mass media and nursing curriculum. I feel lack professional idols. Class activities are dominated by the female students. We are in an

awkward position and lack of sense of belonging. (Participant 8).

The social norm regards men assuming to be doctors and women assuming to be nurses. Because of my gender the patients often have mistaken me for a doctor in clinical rotation. The patients trust male nurses so little that communicate with patient remains a large obstacle. Once, the clinical instructor asked me to inquire about medical history during obstetrics practice, I found what the patient told me was different from the instructor. There's a feeling of depression and mistrust here. I took it calmly at first but under the surface was hurt. (Participant 9).

### 3.3. Dilemma to nursing profession

A number of participants declared that specific experiences caused them to reconsider whether they should continue in their nursing career. Future plans of male nursing student after graduation included: inclined to engage in nursing, out of nursing, indeterminate.

#### 3.3.1. Inclined to engage in nursing

Some participants confirmed that their educational experience met their expectations in some areas, but fell short in others. Although they experienced high levels of stress and strain at school, the intangible rewards of nursing offset many of these negative aspects. Some students stated that they planned to work in nursing after graduation. The following excerpts illustrate this:

For the first year after I enrolled in nursing school, I only thought just making it through. It was not until admission to clinical practice in the fourth academic year that I really understand connotations of nursing and gradually change the view on nursing. Although clinical practice was exhausting I felt happy to help people and see them get better. (Participant 14).

After graduation I prepare to work in the emergency room (ER) or operating room (OR) where are technically orientated areas. Male nurses are competitive in ER or OR and have more opportunities for professional advancement. I think I can do more competitive technical things. The future for me is bright! (Participant 5).

I will work in the hospital after I graduate. Firstly, I'm interested in nursing, and secondly, when come out of college I am guaranteed a job straight away due to the shortage of male nurses in China. Lastly, I was going to get a secure job that can supply a good potential for future development. (Participant 3).

#### 3.3.2. Out of nursing

Influenced by traditional Chinese gender role expectations, male seek success in their professions. Several of the students had considered dropping out of nursing. They were often frustrated with class content which appeared to be irrelevant, and found practice assignments in the hospital to be overwhelming. They took a pessimistic view about the prospects for nursing development. Some participants explained that:

I felt such turmoil about bedside manner in practice. The experimental lesson of making the bed was so boring and I don't want to do more practice. I thought that was a behavior typically associated with female. I will leave the nursing profession after graduation. (Participant 4).

In China as being the breadwinner, man often provides the primary family income. I must support my family in the future and the wage earnings are more important for me. But nurse's work has not been proportionate to their income. Meanwhile, Clinical practice of nursing that normally deal with impurities is boring, very hard work. The social status of nursing is not high. I do not take nursing as a lifelong career. (Participant 7).

In clinical practice, the assessment is done by a doctor. Most of the time the nurses have only performed the doctor's orders and like doctor's handmaiden. (Participant 1).

### 3.3.3. Indeterminate

Male nursing students felt indeterminate about whether they should continue in the nursing profession after they graduate. If male nursing students left nursing, they need to prepare a path away from nursing. Participants stated:

During the clinical rotation I found whatever happened to the patients they all called nurse and regard nurse as a helper rather than the doctor's assistant. There was a lot of desk work in daily nursing practice. I was not particularly interested in nursing, just only can accept the current situation. I will work as a nurse first, then wait and see whether I can find related work in health care profession. (Participant 10).

I have had my doubts whether I should be doing nursing or not. I had been adjusted to the nursing major. Maybe I will continue to study and get a master's degree. If I have a master's degree I have much choice with respect to the future work, and I can be employed in a school. (Participant 13).

### 3.4. Personal benefits of studying nursing

Although the male nursing students in this study faced great challenges, a few still enjoyed nursing and were glad about their decision to become a nurse. Not only was it considered a benefit to learn professional nursing knowledge and skills in order to help people, it was also perceived as being important for their own career development. Personal benefits for Chinese male nursing students were summarized as follows: positive change in character, and gender advantage.

#### 3.4.1. Positive change in character

Male nursing students appreciated the value of studying nursing and explained the personal benefits and advantages. This theme was captured by these student quotes:

I have been a rather diffident and reserved person and hardly speak to female student in high school. Owing to often organizing activities with female classmates I am becoming bright and animated. Now I am also becoming the center of attention in my family and provide them health knowledge. (Participant 10).

I must participate in the formation of volleyball or basketball team in the university. However, I don't have such a chance in high school. Because of too few male students in the class if I do not take part in these activities there are not enough people to set up a team. Extracurricular activities not only relieve the stress, but also promote the friendship in our classmates. (Participant 5).

#### 3.4.2. Gender advantage

Despite the difficulties male nursing students encountered, they appeared to be coping well and indicated that they have a physiological and psychological advantage over female nurses. All of these behaviors aligned closely with traditional masculinities. This theme is demonstrated by the following quotations:

Male students have received more attention than female in class. The teacher usually activates the classroom atmosphere by preferentially questioning male student every class. Ha ha! That is great. It can facilitate learning. (Participant 6).

We male students have better physical strength than female. Meanwhile, we can provide physical private care for male patient in clinical practice. Sometimes Chinese old male patient that should be provided private care by female nurse will feel extremely nervous and embarrassed because of biological sex. The male patients will feel extremely ease if treated by a nurse of the same sex. (Participant 14).

## 4. Discussion

Previous nurse scholars have used qualitative methodology to explore the experience of male students in nursing programs (Ashkenazi et al., 2017; Dunagan et al., 2016; Hollup, 2014; Kelly et al., 1996; Mooney et al., 2008; Meadus and Twomey, 2011; Yang et al., 2017).

However, to date similar studies are lacking in mainland China. Since there may be some specific elements of Chinese culture that contribute to a unique educational context, a better understanding of the educational experiences of the male nursing students in China is needed to provide reference for their education.

Nursing education in China includes a technical secondary program, an advanced diploma program and a baccalaureate program. Baccalaureate nursing programs in China began in 1983; the proportion of nurses with a bachelor's degree accounted for only 14.5% in 2016. The proportion of male nurses was only 2.0%, and therefore the number of male nurses with a bachelor's degree was extremely low (NHFP, 2016). The shortage of highly educated nurses restricts Chinese nursing development. With increasing awareness of the stereotypical advantages men may have in nursing such as physical strength, technical prowess, cool-headedness and autonomy, hospitals may be more open to recruiting added male nurses (Evans, 1997). Male nurses are considered a scarce resource and competitive in the job market (Liu and Li, 2017). Nevertheless, stereotypes of male nurses lead male nursing students to face considerable prejudice, which leads to stigma, ridicule, isolation, and loneliness.

In the West, male nursing students usually actively chose nursing major and are guided by an altruistic orientation. Research show the motivations for men to choose nursing include: (1) helping others and working with people (Kelly et al., 1996); (2) being nurse role models (Meadus and Twomey, 2011); (3) finding the work to be challenging, interesting and satisfying (Ierardi et al., 2010); (4) a sense of doing something useful (Ashkenazi et al., 2017); (5) career development opportunities, job security and career mobility (Mooney et al., 2008; Sayman, 2015); and (6) salary and prestige (Hollup, 2014). This view is also shared among nurses in Hong Kong and Taiwan (Chan et al., 2014; Yang et al., 2017). In mainland China few male students chose nursing as their first-choice major on the college entrance voluntary form (Feng et al., 2016). In this study, few participants took the initiative to choose nursing; most of them passively chose nursing through others' suggestions and did not really understand what the profession of nursing entails. Many participants regretted that the choice of entering a nursing program was not their own personal decision and did not generally accept themselves as nurses. They seemed to see nursing as drudgery. It was demonstrated that satisfaction with major has a positive impact on student retention (Feng et al., 2016). Low satisfaction with one's major may decrease Chinese male nursing students' willingness to be nurses and affect future job satisfaction. Lower job satisfaction can lead to an increase in the turnover rate of male nurses and possibly to the instability of the nursing staff.

Differences in professional choice motivation between Chinese male nursing students and those from other countries may lead to different learning attitudes. The passive choosing of a nursing degree led to low enthusiasm for their major and a lower level of interests and motivation. Students can choose to study liberal arts or science from high school in China. Several participants chose liberal arts in high school because they considered science courses, such as biochemistry to be more difficult and thus did not like similar courses. Many male nursing students are confronted with the reality that they are a minority within their learning environment. Such circumstances lead to a lack of motivation to learn among the participants. In Western countries, male nurses are offered more opportunities and autonomy in clinical practice, whereas male nurses in Chinese cultures "to observe intersexual propriety (p. 301)" are greatly oppressed by traditional norms (Chan et al., 2013). The art of nursing is complex and requires an ability to deliver holistic care in the context of multiple therapeutic relationships. Caring in nursing encompasses feelings, emotions and relationship dynamics (Mooney et al., 2008). Clinical nursing needs wholehearted devotion. The academic pressure in nursing school causes participants losing their interest in nursing. The lack of a professional identity they could be proud of played a negative role in reducing work strain and fatigue in their academic work.

Reasons for participants leaving nursing include it being a female-dominated profession, financially insufficient to support a family, and consideration of the workload as boring. The reasons for staying in nursing centered on a sense of achievement, a gender competitive advantage, and job security. A few participants were unsure about leaving or staying in nursing. Chinese traditional culture accords superior status to males. In China, nurses do not play a central part in health care and are usually regarded as doctors' assistants. Nursing has a lower social status and is regarded as an inferior occupation. The lack of a positive image of male nurses accounted for their lack of clarity about their roles and confusion over their identity, which further aggravated their feelings of inferiority (Chan et al., 2014). Influenced by culture, males are expected to be the breadwinner, but the salary of Chinese nurses is not enough to support a family. The low income of nurses in China prevented some participants from entering the nursing workforce. Nursing has a lower social status and is strongly stereotyped as a female occupation and is barely viewed as a profession. High-quality Nursing Service of China overemphasizes domestic and private caring. The work of cleaning, bathing and feeding increased the burden of nurses (NHFP, 2011). Rajacich's study (2013) showed a negative correlation between job satisfaction and nurses' intention to leave nursing. It also showed that lower levels of job satisfaction were predictive of turnover rate. Job satisfaction is the single most important determinant of intentions to quit nurses. This may be a reason why so many participants are unwilling to be nurses. Generally speaking, the data in this study provide evidence that Chinese culture has hindered male engagement in nursing.

However, not all male nursing students view their own career development negatively. Because nursing requires physical strength, high technical skills and autonomy, the male nursing students believed they held advantages over women in some clinical settings such as intensive care unit, operating theatre, psychiatry and emergency department, which is in alignment with previous research (Evans, 1997). A few participants felt there would be plentiful opportunities for them in the ER or OR because of the idea that men do more competitive technical things. Working in specialized wards allows male nurses to avoid awkwardness in nursing practice related to gender roles, and brings greater respect for competency as a nurse regardless of gender (Hales et al., 2016).

The admission score of nursing in NCEE is lower than that of medicine in China (HEAO, 2016). This fact may provide an opportunity to recruit male student who have an interest in medicine but lack adequate NCEE scores to consider nursing as a career option. Such recruitment efforts may lead to increased support and enrollment of men in nursing. The motivation behind male students' choice to enter a nursing major was affected by social, environmental, and individual values (Wu et al., 2015). Stereotypes of nursing often lead to discrimination for men choosing nursing (Meatus, 2000). Positive media portrayal of males in nursing in countries such as Australia and Canada correlated with a steady rise in the number of males entering nursing (Bartfay and Bartfay, 2017; Stott, 2007). The positive aspects of a gender-neutral portrayal of nursing to the public should be emphasized. It would help to break down the socially constructed stereotype and change the perception of nursing as a feminine profession. It is during their nursing education that future nurses first come into contact with the world of nursing and form their professional identity (McDonald, 2013). To retain male nursing students choosing nursing as a career, teaching staff should ensure that the educational context provides optimum learning experiences from a theoretical and clinical perspective. More and more men in nursing might help eliminate the societal barriers and perceptions of nursing as a sex-typed occupation (Meatus, 2000).

More of a focus on the curative aspects of nursing rather than the caring aspects may increase the appeal of the profession for males in China. Nursing may be perceived as much more high-tech, interventional, cure-versus-care focused, and medically oriented, rather than

caring, nurturing and empathetic (Hollup, 2014). Some believe male nurses in China should associate less with the caring side of nursing to more of medical and technical aspects of nursing. Only in this way can "typical male" Chinese values be heightened and hopefully attract more men into the field of nursing. Others would argue that the nursing profession should not adjust its core tenant of caring to accompany a needed male workforce. This may lead to a nurse role separated by gender. The medical profession did not change its core tenant as more females entered its workforce. A possible alternative could be the creation of a "physician assistant" role, rather than change in the focus of nursing or create a parallel focus of the nursing profession. This new healthcare provider role could offer an opportunity for more males to enter the field in a role that has not been stigmatized as a feminine one.

#### 4.1. Limitation

Some limitations were inherent in this study when interpreting these results. First, male nursing students from only one university were invited to participate. Perhaps participants in other areas of China might answer differently and enrich the research by enhancing its generalizability. Subsequently, more research is needed to compare the gendered experiences of men and women in nursing programs. It is believed that gender is a very culturally dependent issue, which makes comparison of male nursing students between China and the West difficult, as overseas students were not included in our study. Despite these limitations, our results yield meaningful information about educational experience of male students in a baccalaureate nursing program in China.

#### 5. Conclusion

The findings of this study allowed Chinese male nursing students to give voice to their experiences leading to their decision to be a nursing major, and also to the sources of dissatisfaction they face in school. Nursing schools, professional associations, and governments must listen to their voices, experiences of being a male in nursing. Stronger propaganda is needed for males in high school to better understand the benefits of choosing a career in nursing proactively. To understand gender-based challenges in nursing, nursing educators need to pay attention to ways in which men's experiences influence their willingness to remain in the profession. In particular, a lack of male role models and clinical value for males in nursing contribute to the problem. Faculty needs to work to ensure adequate male role models are available in the teaching and clinical environments of nursing students.

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#### Contributions

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#### Declarations of interest

None.

#### References

- Abhichartitbutra, K., Kunaviktikul, W., Turale, S., Wichaikhum, O.A., Srisuphan, W., 2017. Analysis of a government policy to address nursing shortage and nursing education quality. *Int. Nurs. Rev.* 64 (1), 22–32. <https://doi.org/10.1111/inr.12257>.
- Ashkenazi, L., Livshitz-Riven, I., Romem, P., Grinstein-Cohen, O., 2017. Male nurses in Israel: barriers, motivation, and how they are perceived by nursing students. *J. Prof. Nurs.* 33 (2), 162–169. <https://doi.org/10.1016/j.profnurs.2016.08.001>.

- Bartfay, W.J., Bartfay, E., 2017. The lived experiences and challenges faced by male nursing students: a Canadian perspective. *J. Nursing Hlth. Care* 4 (2), 1–9. [https://doi.org/10.5176/2345-718X\\_4.2.136](https://doi.org/10.5176/2345-718X_4.2.136).
- Chan, Z.C., Chan, Y.T., Yu, H.Z., Law, Y.F., Woo, W.M., Lam, C.T., 2014. An ethnographical study on the academic experiences of Chinese male nursing students. *Nurse Educ. Pract.* 14 (2), 130–136. <https://doi.org/10.1016/j.nepr.2013.08.009>.
- Chan, Z.C., Lui, C.W., Cheung, K.L., Hung, K.K., Yu, K.H., Kei, S.H., 2013. Voices from a minority: experiences of Chinese male nursing students in clinical practice. *Am. J. Men's Health* 7 (4), 295–305. <https://doi.org/10.1177/1557988312473502>.
- Chang, H.Y., Shyu, Y.I., Wong, M.K., Friesner, D., Chu, T.L., Teng, C.I., 2015. Which aspects of professional commitment can effectively retain nurses in the nursing profession? *J. Nurs. Scholarsh.* 47 (5), 468–476. <https://doi.org/10.1111/jnu.12152>.
- Chen, S.H., Yu, H.Y., Hsu, H.Y., Lin, F.C., Lou, J.H., 2013. Organisational support, organisational identification and organisational citizenship behaviour among male nurses. *J. Nurs. Manag.* 21 (8), 1072–1082. <https://doi.org/10.1111/j.1365-2834.2012.01449.x>.
- Dunagan, P.B., Kimble, L.P., Gunby, S.S., Andrews, M.M., 2016. Baccalaureate nursing students' attitudes of prejudice: a qualitative inquiry. *J. Nurs. Educ.* 55 (6), 345–348. <https://doi.org/10.3928/01484834-20160516-08>.
- Elo, S., Kyngäs, H., 2008. The qualitative content analysis process. *J. Adv. Nurs.* 62 (1), 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>.
- Evans, J., 1997. Men in nursing: issues of gender segregation and hidden advantage. *J. Adv. Nurs.* 26 (2), 226–231. <https://doi.org/10.1046/j.1365-2648.1997.1997026226.x>.
- Feng, D., Zhao, W., Shen, S., Chen, J., Li, L., 2016. The influence of perceived prejudice on willingness to be a nurse via the mediating effect of satisfaction with major: a cross-sectional study among Chinese male nursing students. *Nurse Educ. Today* 42, 69–72. <https://doi.org/10.1016/j.nedt.2016.04.012>.
- Hales, C., de Vries, K., Coombs, M., 2016. Managing social awkwardness when caring for morbidly obese patients in intensive care: a focused ethnography. *Int. J. Nurs. Stud.* 58, 82–89. <https://doi.org/10.1016/j.ijnurstu.2016.03.016>.
- Higher Education Admission Office of HENAN Province (HEAO), 2016. National College Entrance Examination Scores of HENAN Province. Retrieved from: <http://gaokao.haedu.gov.cn/UserFiles/File/201607/20160719092627845.htm>, Accessed date: 5 July 2018.
- Hollup, O., 2014. The impact of gender, culture, and sexuality on Mauritian nursing: nursing as a non-gendered occupational identity or masculine field? Qualitative study. *Int. J. Nurs. Stud.* 51 (5), 752–760. <https://doi.org/10.1016/j.ijnurstu.2013.09.013>.
- Ierardi, J.A., Fitzgerald, D.A., Holland, D.T., 2010. Exploring male students' educational experiences in an associate degree nursing program. *J. Nurs. Educ.* 49 (4), 215–218. <https://doi.org/10.3928/01484834-20091217-04>.
- Kelly, N.R., Shoemaker, M., Steele, T., 1996. The experience of being a male student nurse. *J. Nurs. Educ.* 35 (4), 170–174. <https://doi.org/10.3928/0148-4834-19960401-08>.
- Liu, H.Y., Li, Y.L., 2017. Crossing the gender boundaries: the gender experiences of male nursing students in initial nursing clinical practice in Taiwan. *Nurse Educ. Today* 58, 72–77. <https://doi.org/10.1016/j.nedt.2017.08.006>.
- McDonald, J., 2013. Conforming to and resisting dominant gender norms: how male and female nursing students do and undo gender. *Gen. Work. Organ.* 20 (5), 561–579. <https://doi.org/10.1111/j.1468-0432.2012.00604.x>.
- Meadus, R.J., 2000. Men in nursing: barriers to recruitment. *Nurs. Forum* 35 (3), 5–12. <https://doi.org/10.1111/j.1744-6198.2000.tb00998.x>.
- Meadus, R.J., Twomey, J.C., 2011. Men student nurses: the nursing education experience. *Nurs. Forum* 46 (4), 269–279. <https://doi.org/10.1111/j.1744-6198.2011.00239.x>.
- Mooney, M., Glacken, M., O'Brien, F., 2008. Choosing nursing as a career: a qualitative study. *Nurse Educ. Today* 28 (3), 385–392. <https://doi.org/10.1016/j.nedt.2007.07.006>.
- National Health and Family Planning Commission of the PRC (NHFPCC), 2016. Annals of Health and Family Planning of China. Retrieved from: <http://www.nhfpcc.gov.cn/zwgkzt/tjnj/list.shtml>, Accessed date: 5 April 2018.
- National Health and Family Planning Commission of the PRC (NHFPCC), 2011. Activity Program of High-Quality Nursing Service. Retrieved from: <http://www.nhfpcc.gov.cn/zwgkzt/wsbsysj/201107/52249.shtml>, Accessed date: 5 April 2018.
- Nightingale, F., 1969. Notes on Nursing: what it is, and what it is Not. Dover, New York (first published in 1860). Retrieved from: <http://uploads.worldlibrary.net/uploads/pdf/2013120422531nightingale.pdf>, Accessed date: 5 April 2018.
- Rajacich, D., Kane, D., Williston, C., Cameron, S., 2013. If they do call you a nurse, it is always a “male nurse”: experiences of men in the nursing profession. *Nurs. Forum* 48 (1), 71–80. <https://doi.org/10.1111/nuf.12008>.
- Sayman, D.M., 2015. Fighting the trauma demons: what men in nursing want you to know. *Nurs. Forum* 50 (1), 9–19. <https://doi.org/10.1111/nuf.12073>.
- Stott, A., 2007. Exploring factors affecting attrition of male students from an undergraduate nursing course: a qualitative study. *Nurse Educ. Today* 27 (4), 325–332. <https://doi.org/10.1016/j.nedt.2006.05.013>.
- Tinkler, L., Smith, V., Yiannakou, Y., Robinson, L., 2018. Professional identity and the clinical research nurse: a qualitative study exploring issues impacting on participant recruitment in research. *J. Adv. Nurs.* 74 (2), 318–328. <https://doi.org/10.1111/jan.13409>.
- Wu, L.T., Low, M.M., Tan, K.K., Lopez, V., Liaw, S.Y., 2015. Why not nursing? A systematic review of factors influencing career choice among healthcare students. *Int. Nurs. Rev.* 62 (4), 547–562. <https://doi.org/10.1111/inr.12220>.
- Yang, C.I., Yu, H.Y., Chin, Y.F., Lee, L.H., 2017. There is nothing wrong with being a nurse: the experiences of male nursing students in Taiwan. *Jpn. J. Nurs. Sci.* 14 (4), 332–340. <https://doi.org/10.1111/jjns.12162>.