Role Strain of Different Gender Nursing Students in Obstetrics Practice: A Comparative Study

Ya-Ling Tzeng • Jing-Zu Chen* • Hsiu-Chin Tu** • Tsen-Wei Tsai***

ABSTRACT: The purpose of this study was to compare gender-based differences in levels of role strain and related attitudes among nursing students and to examine factors associated with role strain experienced by students during obstetric practice. A cross-sectional survey was used on a sample of 95 female and 55 male baccalaureate nursing students who had completed their obstetric practice at one of two universities in central Taiwan. Results showed role strain in male nursing students to be significantly higher than that in female nursing students, especially in terms of role incongruity. The attitude of male nursing students toward clinical instructors, healthcare providers, and clients and their families and the stereotyped viewpoint about the gender role and occupation were all significantly higher than those of their female counterparts. Most variance (57.3%) in role strain in male nursing students was explained by attitude toward clinical instructors, attitude toward clients with their families, a lack of interest in nursing, and attitude toward healthcare providers. By way of comparison, attitude toward clinical instructors, attitude toward clients and their families, and attitude toward healthcare providers explained 30.1% of the variance of role strain in female nursing students. Results of this study may enhance understanding of the experiences of nursing students in obstetric practice and serve as a reference for nursing educators on curriculum development and clinical instruction.

Key Words: male nursing student, gender difference, obstetrics practice, role strain.

Introduction

Increasing numbers of men are choosing nursing as an occupation, although nursing remains a highly female-dominated profession (Callister, Hobbins-Garbett, & Coverston, 2000; Lou, Yu, Hsu, & Dai, 2007). Male nursing students were initially recruited into the profession in Taiwan in 1985. Today, most nursing departments have male students. Although the participation of men in nursing is becoming more acceptable (Tzeng & Chen, 2008), one of the issues concerning male nurses is increasing evidence indicating that male nursing students face more gender-based role stress than do their female peers, especially when caring for female patients (Chung, 1994). Patterson and Morin (2002) interviewed eight male nursing students who had completed their maternal–child rotation. They also found that participants began the maternal–child clinical rotation with feelings of fear, anxiety, and the possibility of rejection (Patterson & Morin, 2002). Clearly, it is critically important to understand the uniqueness of practical experiences of male nursing students and to consider ways to prevent discrimination so as to enhance the quality of nursing education for male students (Callister et al., 2000; Okrainec, 1994; Wilson, 2005). Studies in the United States have shown that role strain experienced by male nursing students in obstetrics is higher than that experienced by their female counterparts (Sherrod, 1991). The differences in cultural and educational background of students in Taiwan make this a useful subject for further investigation. In addition, according to Turnipseed (1986),
Role strain could threaten a student’s self-concept and create feelings of frustration and failure. Therefore, the purpose of this study was to compare differences in gender-based levels of role strain and related attitudes among nursing students and to examine the factors associated with role strain of nursing students during their obstetrics training.

Literature Review

Role strain was defined initially by Goode (1960) as the difficulty one feels in fulfilling one’s perceived role obligations. Goode identified four types of role strain: role overload, role conflict, role ambiguity, and role incongruity. Sherrod (1991) developed a framework based on these concepts and used it to investigate the obstetrics practice experiences of 18 male and female students. Results indicated that male student nurses had higher levels of role strain. Callister et al. (2000) developed Sherrod’s research and explored the role strain experienced by 20 male and female nursing students receiving obstetrics training using the Sherrod Role Strain Scale (SRSS) and the analysis of a clinical journal kept by research subjects. They also found that male nursing students had a significantly higher level of role strain than their female counterparts. Okrainec (1994) agreed with other researchers that being a male in a female-dominated occupation is a potential source of role strain for male nursing students. He suggested that further study on in obstetrical nursing is needed.

Although there have been few studies related to obstetrics training received by male nursing students, such training has produced conflicting results (Fogg, 1961; Morin, Patterson, Kurtz, & Brzowski, 1999). Wood (2004) found that male nursing students in the United States faced more difficulties than did females. For example, they were often rejected by maternity clients or their families and not allowed to practice in certain care areas. Morin et al. (1999) studied women’s responses to care provided by male nursing students. They also found that women expressed a preference for female students because of the private nature of such care. Male nursing students in Taiwan have faced the same situation (Tzeng, 1996). However, some research demonstrates a different view. Sherrod (1991) and Brown (1986) found that male nursing students can do as well as their counterparts do as long as proper preparation was made in advance and equal training opportunities were provided. This was acknowledged by Mynaugh (1984), who claimed that maternity clients recognize a male student’s ability in obstetrical nursing, consider them more patient, approve of their participation in obstetrical nursing, and accept the care they deliver. However, when considering the delivery of more professionally intimate aspects of care, most women decline male nursing students (Newbold, 1984). In general, male nursing students have experienced discrimination in their obstetrical nursing practice because of their gender (Benda, 1981; Brown, 1986; Tzeng, 1996). O’Lynn (2004) used a survey to explore the prevalence of discrimination and the perceived importance of gender-based barriers for male students in nursing education programs. The sample was randomly selected from the current male members of the American Assembly of Men in Nursing and the current male licensed registered nurses from the U.S. state of Montana. One hundred eleven students completed the survey, of which 90.1% of the sample stated that they were “nervous that female patients would accuse male students of sexual inappropriateness when providing intimate care.” Of the same sample, 80.0% stated that “different requirements and or limitations put on male students in obstetrical and gynecological department clinical rotations” represent significant barriers to male nursing students.

Sherrod (1991) suggested that the fact that male nursing students face greater obstetric role strain than do female students may be related to societal stereotypes about male nursing students in the obstetrical setting. She further explained that feminine behaviors of the obstetrical nurse are not viewed as socially acceptable for males. Wu (1999) asserted that the medical care system operates as one of the most gender specific of all professions. Physicians, mostly male, are in the leadership position, with nurses, mostly female, expected to assume subordinate roles. When the nurses who choose nursing professions contradict role expectations, such as in nursing, they are easily targeted as a disparate group. Hence, they are more apt to experience role strain arising from their gender when they are in training or working (Stott, 2007; Wu, 1999). It is necessary to further understand the role strain experienced by male nursing students to assist in finding ways to reduce it. Furthermore, previous studies had either a small sample size or lacked comparative gender groups (Sherrod, 1991; Tzeng, Luo, Jang, & Sheng, 1999). The current study was thus designed to fill this gap in the research.
Methods

Design and Data Collection

A cross-sectional survey using structured questionnaires was used in the current study. Nursing students in a 4-year baccalaureate course were recruited from two universities in central Taiwan. All participating students had completed their obstetrical nursing training within the previous 12-month period. After permission from the university’s administration to conduct the study, purposes and procedures were explained to participants. All participants gave their informed consent and understood how data would be kept confidential, how their anonymity would be assured, and the fact that they had the right to withdraw from the research at any time without affecting their school record.

Questionnaires were then distributed to the 151 female nurses and 59 male nurses who had agreed to participate in this research. A total of 210 copies of the questionnaires were distributed, and 155 questionnaires were returned. Five questionnaires were not used because they were incomplete, so the analysis was based on 150 questionnaires (valid response rate = 71.4%). In comparing demographic data between students who returned and those who did not return the questionnaire, we found no significant differences in terms of gender, age, grade, or marital status ($p > .05$).

Measures

A three-part structured questionnaire was used to collect data. Part 1 consisted of demographic characteristics, which included age, grade, marital status, degree of interest in nursing, and degree of willingness to take a position in the nursing profession after graduation.

Part 2 consisted of questions about personal attitudes influencing student thinking. Questions were developed from the literature and the authors’ professional experiences (including Chung, 1994; Sherrod, 1989; Tseng, 1996, 1997). A 5-point Likert-type scale was used in each of the following four headings scores equated to high negativity: (a) attitude toward the clinical instructors, for example, “I think the instructor cannot provide the assistance I need”; (b) attitude toward healthcare providers, such as, “I think healthcare providers are unwilling to support my care of the parturient”; (c) attitude toward clients and their families, such as, “I feel it is more difficult to take care of the parturient and her family than other patients”; and (d) attitude toward a stereotyped viewpoint about gender role and occupation, such as, “I consider nursing as a female profession.”

Part 3 consisted of the SRSS. The SRSS was developed by Sherrod (1991) to measure the role strain of students during obstetrics practice. It is a 40-item Likert-type scale with subscales. Using the subscales role overload, role conflict, role incongruity, and role ambiguity, a 5-point scale was adopted. High scores corresponded to a high degree of role strain. Samples of items from subscales follow: “Between what my instructor assigns me and other healthcare providers ask me to do, I don’t have time to complete my duties” (role overload); “My assigned care duties conflict with what the client will allow me to do” (role conflict); “The instructor assigns me to do things that I don’t like doing” (role incongruity); and “My client is unclear about my scope and responsibilities in the clinical area” (role ambiguity). Students who participated in this study were required to finish all three parts of the questionnaire.

After obtaining the consent of the original author, the SRSS was two-way translated and slightly modified to take account for cultural characteristics in Taiwan. A focus group of six nursing students (three male and three female nursing students) reviewed the questionnaire, and, as a result, expressions were changed to enhance face validity. A second focus group included four experts from different disciplines (sociology, psychology, and nursing) and two nursing educators with considerable experience in teaching male nursing students in obstetrics. The focus group was asked to comment regarding content, appropriateness of word use, and clarity of questionnaire revisions. Because of these deliberations and to manage the differences in the educational and cultural characteristics of Taiwan, one question was deleted from each of the three subscales (Role Ambiguity, Role Incongruity, and Role Conflict). The level of agreement to the rest of the questions on the scale within the second focus group was >85%. Cronbach’s alpha values observed in this study were as follows: influencing factors = .81 and role strain scale = .83.

Statistical Analysis

Data are expressed as the $M \pm SD$ for continuous variables or $n$ (%) for categorical variables. An independent $t$ test was used to compare differences between genders. A multiple regression analysis was also carried out to estimate the variance in role strain experienced by
nursing students during obstetrics clinical rotation. All analyses were performed using SPSS Version 12.0. A p value of < .05 was considered statistically significant.

Results

Demographic Characteristics of the Participants

The participants consisted of 55 male and 95 female students. A majority was in the age range of 20 to 25 years (male students = 81.8%; female students = 92.6%; Table 1) and in the fourth year of their academic program (male students = 71%; female students = 61%). All were unmarried. Both genders had a "significant interest" in nursing after completing their practice (male students = 45.5%; female students = 61.1%). A few expressed having "not much interest" in nursing (male students = 36.4%; female students = 12.6%). A majority was "willing" to do nursing work after graduation (male students = 67.3%; female students = 83.2%), whereas a minority was "unwilling" (male students = 32.7%; female students = 16.8%).

Gender-Based Analysis of Four Attitudes During Practical Experiences in an Obstetrical Area

The four related attitudes regarding obstetrical practice of the two genders are presented in Table 3. The mean scores of attitude toward clinical instructors (t = 2.70, p < .01), toward healthcare providers (t = 2.87, p < .01), toward clients and their families (t = 7.16, p < .001), and toward the stereotyped viewpoint about the gender and occupation roles (t = 4.19, p < .001) of male nursing students were all significantly higher than those of female nursing students indicates that male nursing students scored negatively on these four attitudes.

Factors Related to Role Strain in the Obstetrical Area for Male Nursing Students

The independent variables that were statistically different in univariate analysis (the categorical variable was changed into a dummy variable before analysis) included interest in nursing, attitude toward clinical instructors, attitude toward healthcare providers, attitude toward clients and their families, and attitude toward stereotyped gender and occupation roles. These variables were entered into a multiple regression model. Table 4 shows attitude toward clinical instructors, attitude toward clients and their

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Men (n = 55)</th>
<th>Women (n = 95)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overload</td>
<td>19.56 ± 3.78</td>
<td>19.06 ± 3.39</td>
<td>0.95</td>
</tr>
<tr>
<td>Conflict</td>
<td>22.49 ± 4.83</td>
<td>20.15 ± 4.15</td>
<td>2.79**</td>
</tr>
<tr>
<td>Incongruity</td>
<td>29.92 ± 6.58</td>
<td>22.21 ± 5.45</td>
<td>5.55***</td>
</tr>
<tr>
<td>Ambiguity</td>
<td>23.94 ± 5.49</td>
<td>21.50 ± 3.46</td>
<td>2.06*</td>
</tr>
<tr>
<td>Overall</td>
<td>97.81 ± 17.20</td>
<td>74.12 ± 20.78</td>
<td>2.95*</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.

Comparison of Role Strain in the Obstetrical Setting Between Genders

Results of the four role strain subscales (role overload, role conflict, role incongruity, and role ambiguity) are presented in Table 2. Male students had significantly higher mean scores than did female students in role conflict (t = 2.79, p < .01), role incongruity (t = 5.55, p < .001), role ambiguity (t = 2.06, p < .05), and overall scale total (t = 2.95, p < .05).

Table 1.

Demographic Data of Nursing Students (N = 150)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Men (n = 55)</th>
<th>Women (n = 95)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>20–25</td>
<td>45</td>
<td>81.8</td>
</tr>
<tr>
<td>26–30</td>
<td>10</td>
<td>18.2</td>
</tr>
<tr>
<td>Program year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third year</td>
<td>16</td>
<td>29.0</td>
</tr>
<tr>
<td>Fourth year</td>
<td>39</td>
<td>71.0</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>55</td>
<td>100.0</td>
</tr>
<tr>
<td>Married</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Interest in nursing after completing practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not interested</td>
<td>5</td>
<td>9.1</td>
</tr>
<tr>
<td>Not much interested</td>
<td>20</td>
<td>36.4</td>
</tr>
<tr>
<td>Interested</td>
<td>25</td>
<td>45.5</td>
</tr>
<tr>
<td>Very interested</td>
<td>5</td>
<td>9.1</td>
</tr>
<tr>
<td>Willing to do nursing work after graduation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>37</td>
<td>67.3</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>32.7</td>
</tr>
</tbody>
</table>
families, interest in nursing, and attitude toward healthcare providers to be factors related to role strain experienced by male nursing students in obstetrics. Together, these four variables explained 57.3% of variance in role strain.

Factors Related to Role Strain in the Obstetrical Area for Female Nursing Students

The independent variables that were statistically different in univariate analysis (the categorical variable was changed into a dummy variable before analysis) included attitude toward clinical instructors, attitude toward healthcare providers, attitude toward clients and their families, and attitude toward stereotyped gender and occupation roles. These were entered into a multiple regression model. Results showed that the factors affecting role strain experienced by female nursing students in obstetrics included attitude toward clinical instructors, attitude toward clients and their families, and attitude toward healthcare providers. Together, these three variables explained 30.1% of variance in role strain (Table 5).

Discussion

The results of this study are consistent with the results of Sherrod (1991). Specifically, male nursing students faced higher role strain than did their female counterparts in the obstetrical setting. The results also indicated that male student nurses had significantly higher levels of role conflict, role ambiguity, and role incongruity than their female colleagues and no difference on the role overload subscale. These results may be associated with societal stereotypes of male student nurses in the obstetrical setting. Sherrod stressed that female characteristics, for example, patience and a nurturing nature, are often thought of as a prerequisite of obstetrics nursing staff. Therefore, male nursing students usually experience more role incongruity and role ambiguity than do their female counterparts. In addition, previous studies have concluded that many women in labor prefer female students to carry out such procedures as breast and vaginal care (Sherrod, 1991; Wood, 2004). As a result, male roles are in conflict with the intimate nature of obstetrical care. Contradictory role expectations may result in role conflict because male nursing students must assume the incongruent roles of nurse, student, and gender (Patterson & Morin, 2002). In short, male nursing students working in obstetrics are part of a minority group and play an unconventional role (Goode, 1960). This enhances their stress in the practice area. The only nonsignificant difference between the two
genders found by this study was level of role overload. also confirms Sherrod’s finding and implies that male nursing students possess the same ability as their female colleagues when it comes to providing obstetrical care (Sherrod, 1991).

We also found that, in comparison with female students, male nursing students had more negativity in four attitude areas. These were on attitude toward clinical instructors, attitude toward healthcare providers, attitude toward clients and their families, and attitude toward gender and occupation role stereotyped viewpoint. The reasons for this may involve the intimate care in obstetrics nursing practice and women’s negative reactions to male students performing clinical care. Male students experience comparatively greater pressure than do their female colleagues. Meanwhile, previous studies showed that some of the clinical instructors and nursing staff who are influenced by the stereotypes of gender roles would not support male students to pursue careers in obstetrics. They also do not treat male students equally (Tzeng, 1996, 1997). In addition, in our study, there were no married male students. This may increase role pressure as there is evidence that maternity patients might feel more comfortable being cared for by older, married male nursing students who had children of their own (Morin et al., 1999). In clinical practice, male nursing students had a higher refusal rate from women and their families than their female counterparts (Tzeng, 1996), which could cause more negativism.

Regarding the results of multiple regression analyses, we found attitude toward clinical instructors, attitude toward clients and their families, and attitude toward healthcare providers to be the important influencing factors of role strain for nursing students of both genders. This result may relate to negative attitudes expressed by these groups.

According to Tzeng (1996, 1997), the negative attitude of clinical instructors, healthcare providers, and clients and their families toward care provided by male nursing students originated predominately from a stereotyped attitude to a previously single-gender profession. It implies that reducing gender role stereotypes is still needed. Scholars who focus on gender issues advocate that, in choosing careers, one should discard consideration of gender role stereotypes and prejudices. They point out that careers in modern society tend toward mechanization and computerization and that it is inappropriate to continue clearly defining gender roles. stereotyped gender roles would hamper modern social development (Li, 1993; Tzeng, 2000). Among the influencing factors, the sole difference was respondent interest in the nursing profession. In this study, male nursing students were less interested in nursing than were female students. This could be a result of their assignment to the nursing department based on the entrance examination. There were also some students who wanted to defer mandatory military service through continued studies. Thus, it may not be their interest that led to their admission as a student of nursing (Tzeng et al., 1999). The Ministry of Education has also recently opened an alternative recruitment channel for new students outside of the standard entrance examination. After passing a preliminary test, the students can apply to schools based on their own interests and career ambitions. Therefore, it is necessary to conduct a further study to understand if male students who choose nursing by themselves would have different results.

Recommendations

On the basis of these results, we suggest that clinical instructors and healthcare providers should examine themselves and their work for evidence of stereotyped gender-based attitudes to reduce role strains experienced by nursing students. Nursing clinical instructors, in particular, play a critical role in directing and guiding nursing students in the obstetrics practice area because they are usually in charge of curriculum development and course delivery. They also serve as a bridge between healthcare providers and clients and their families (Tumminia, 1981; Tzeng, 1996). Clinical instructors should pay more attention to the negative impact caused by a stereotyped attitude toward gender roles when planning and delivering programs and providing guidance to nursing students (Benda, 1981; Tzeng, 1997). Clinical instructors should also try to understand the attitudes of healthcare providers toward male nursing students and how these have developed so that better channels of communication can be established. This will help to develop a more useful and consistent mindset and proper support for students. Following the obstetrics training component, instructors should encourage students to express their feelings about their experiences and give appropriate explanations and clarification. In this way, male nursing students will more easily adapt themselves to the obstetrics area, thereby reducing the degree of role strain experienced.
It has further been reported that nursing educators, nurse administrators, and female nurses usually encourage male nurses to advance to more senior positions perceived as congruent with their masculine gender role (Brady & Sherrod, 2003; Patterson & Morin, 2002; Tzeng & Chen, 2008). Doing so only increases the invertecy of gender role stereotypes and disadvantages both female nursing students and the development of the nursing profession. Many have stressed that what affects the quality of medical care is the masculinity and femininity (the social dimension) of medical professionals, and not their biological gender role. In other words, a feminine male nurse can establish a better nurse–patient relationship than can a masculine female nurse (Wu, 1999). Thus, we suggest that, in the course of educating nursing students of different genders, it is proper to stress masculinity and femininity instead of biological gender roles to encourage the nursing students of different genders who possess these two characters and treat the students with various characters (masculinity or femininity) equally. In addition to relieving student role strain during their courses of study, such would be helpful in relieving perceptions of masculine superiority and replacing the current situation of long-standing inequity between medicine and nursing.

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不同性別護生於產科實習角色緊張之比較

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摘要：本研究之目的旨在比較不同性別護生於產科實習角色緊張程度及相關態度間之差異，並進一步瞭解影響護生角色緊張的因素。採橫斷式調查法，以台灣中部二所已完成產科實習之大學護生為對象，共收集95位女護生及55位男護生之資料。結果顯示男護生角色緊張之程度顯著高於女護生，尤其在角色不一致方面，男護生在對指導老師的態度、對護理人員的態度、對產婦及家屬的態度及對職業性別刻板印象的態度方面得分亦高於女護生。此外，對指導老師的態度、對產婦及家屬的態度、對護理不感興趣及對護理人員的態度，可解釋男護生57.3%角色緊張程度之變異量。而對指導老師的態度、對護理人員的態度、對產婦及家屬的態度則可解釋女護生30.1%角色緊張程度之變異量。本研究結果有助於瞭解不同性別護生於產科實習時的經驗，可作為護理教育者在課程設計及臨床指導學生時之參考。

關鍵詞：男護生、性別差異、產科實習、角色緊張。