

Code Blue! (Or Pink?): Perceptions of Men and Women Physicians in Specific Gender Dominated Medical Subfields

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ABSTRACT

At present, the public image of the medical profession is changing as more women enter the medical field. Despite this dramatic surge in the number of women physicians, they are proportionately under and over represented in specific subfields of the medical profession. This study investigates the relationship between physician's gender (male or female), medical subfield specialty (OB/GYN or surgeon), and family status (2 children or no children). In particular, this study examines whether gender-related stereotypic differences hold constant across medical subfields that are dominated by the opposite gender. 177 undergraduate students at the University of Wisconsin-La Crosse received one of eight scenarios varying in physician's gender, medical subfield specialty, and family status. ANOVA suggest that there is a significant interaction between physician's gender and medical subfield specialty. Analyses reveal that women physicians are less likely to be promoted and have children (or have more children) when in a medical subfield specialty that is dominated by men. These findings imply that a woman physician should be aware that entering into a medical subfield specialty dominated by the opposite gender could limit other's perceptions regarding their ability for advancement and child rearing capabilities.

INTRODUCTION

Historically in Western industrialized countries medicine has been a profession dominated by men. At present, however, the public image of the medical profession is changing as more women enter the medical field. In 2002-2003, women constituted 49% of applicants and 49% new entrants to U.S. medical schools (Clark, 2004). In regards to this feminization of the medical profession, women are expected to comprise 30% of practicing doctors by the year 2010, and 50% by the year 2040 (Verlander, 2004).

Despite the dramatic surge in the number of women physicians, they are proportionately under and overrepresented in specific subfields of the medical profession. The highest proportion of women residents are found in obstetrics/gynecology (71%) and pediatrics (67%). Whereas the surgical subspecialties remain highly dominated by men with only 9% of women residents in orthopedic surgery and 14% in urology (Clark, 2004). These skewed specialty choices may be related, in part, to a woman physician's awareness of the competing demands that will be made on her time by career, marriage, and children (Verlander, 2004). Factors other than a work/life balance are at play here, as evident by the high percentage of women physicians in obstetrics and gynecology even though it remains to be an intensive and unpredictable field.

Research on the distribution of men and women across medical subfields indicates that gender stereotyping affects both the choice and perception of a subdiscipline (Keizer, 1997). Gender stereotypes are shared sets of beliefs about the psychological trait characteristics of women and men (Williams & Best, 1990). These stereotypes have both descriptive and prescriptive connotations. That is, gender stereotypes not only denote differences in how women and men actually are, but also denote norms about behaviors that are suitable for each (Burgess & Borgida, 1999). For women, these "unsuitable" behaviors typically include those associated with men that are believed to be incompatible with the behaviors deemed desirable for women. Thus, the self-assertive and tough, achievement oriented, agentic behaviors for which men are so positively valued are typically prohibited for women (Eagly & Steffen, 1984). When a woman is acknowledged to have been successful at performing male gender-typed work, she is by definition, thought to have the attributes necessary to effectively execute the tasks and responsibilities required (Heilman, Wallen, Fuchs, & Tamkins, 2004). But, it is these same attributes that are in violation of gender prescriptive norms. This perceived violation of the stereotypic prescription is likely to arouse disapproval and subsequent penalties (Eagly & Steffen, 1984). Indeed, the construct of *fear of success* proposed by Horner in the 1970's, was based on the idea that women's motivation in achievement situations was inhibited by their fear of disapproval for not being feminine. The underlying finding of Horner's research was that both men and women recognized that cross-gender choices come with costs; although, there is no empirical research that these beliefs

subconsciously hold women back (as reviewed by Lips, 2005).

Research findings have indicated that women who behave in ways typically reserved for men are found to be less socially appealing than men who behave similarly or women who behave more in line with normative prescriptions (Carli, 1990; Rudman, 1998). Similar findings support that success in traditionally male domains by women resulted in them being less liked and more personally derogated as compared with equivalently successful men (Heilman, Wallen, Fuchs, & Tamkins, 2004). Successful men occupying female gender-typed jobs seem to elicit the same type of negative ratings that are directed at successful women occupying male gender-typed jobs (Heilman, Wallen, Fuchs, & Tamkins, 2004). The results of these studies convey the idea that a man or woman's success in area traditionally reserved for the opposite gender can give rise to social penalties, causing them to be disliked and negatively viewed.

This study investigated the relationship between physician's gender (male or female), medical subfield specialty (OB/GYN or surgeon), and family status (2 children or no children). In particular, the question of whether gender related stereotypic differences hold constant across medical subfields that are dominated by the opposite gender was examined. Additionally, it was determined if these gender stereotypic differences carry over from work to family and persist between genders. Consistent with earlier research, the following is predicted:

- Hypothesis 1: In a medical subfield specialty that is dominated by men (surgeon), women will be rated less favorably and will be assigned to higher degree's of male gender stereotypic attributes, than women in a female dominated medical subfield specialty (OB/GYN).
- Hypothesis 2: In a medical subfield specialty that is dominated by women (OB/GYN), men will be rated less favorably and will be assigned to higher degree's of female gender stereotypic attributes, than men in a male dominated medical subfield specialty (surgeon).
- Hypothesis 3: In a medical subfield specialty dominated by women (OB/GYN), both men and women will be rated as more nurturing and child oriented than the women and men in a medical subfield specialty dominated by men (surgeon).

METHOD

A total of 177 undergraduate students at UW-La Crosse were included as participants for this research. They were predominately female (77.4%), majoring in Liberal Studies (37.9%), and had a mean age of 20.3 ($SD = 1.34$). Responses from participants who have a parent who is or was a physician were disregarded for this study.

A packet was administered to the participants containing one of eight possible scenarios. The scenarios began with an indication of the person's gender, medical subfield specialty, and family status. Three variables were manipulated within the scenario. Information about the sex of the person in the scenario was manipulated by the names contained in each of the scenarios. The medical subfield specialty was manipulated in accordance to either one dominated by women (OB/GYN) or one that is dominated by men (surgeon). Family status was manipulated by whether or not the stimulus person was said to have two children or no children (marriage was implied in both situations). Further information was held constant and included: person's age, children's age (if applicable), hometown, college attended, present number of years as a physician, and a brief listing of personal interests.

After reading the scenario, the participants rated him or her on a brief questionnaire. The questionnaire contained eight 6-point bipolar adjective scale ratings describing the stimulus individual (*ambitious-unambitious, honest-dishonest, assertive-unassertive, likable-unlikable, exciting-boring, gentle-tough, competent-incompetent, and trustworthy-irresponsible*). In addition, five other questions were asked and rated by the participants on a Likert-type scale ranging from one to six. Three questions (*will be promoted, will have (more) children, and is/will be a good parent*) were based on a Likert scale with one being "not at all likely" and six being "very likely". The fourth question (*quality of patient care*) was also based on a Likert scale, with one being "poor" and six being "excellent"; while the fifth question (*rank in medical school*) had one being "bottom of class" and six being "top of class". Upon being finished, the participants received a written debriefing.

RESULTS

A significant interaction was found between gender and medical subfield specialty when measuring for likelihood of promotion [$F(1,169) = 7.717, p = .006$] (Fig.1). Men have a higher chance of being promoted than women if a surgeon ($M_{male\ surgeon} = 4.634, SD = .853; M_{female\ surgeon} = 4.064, SD = .801$). Whereas women have a higher chance for promotion when an OB/GYN ($M_{female\ OB/GYN} = 4.722, SD = .912; M_{male\ OB/GYN} = 4.578, SD = .859$). A main effect of subfield was also significant [$F(1,169) = 5.427, p = .021$]. More promotional capabilities were found in the OB/GYN medical subfield specialty compared to that of a surgeon ($M_{OB/GYN} = 4.652, SD = .813; M_{surgeon} = 4.329, SD = .956$).

A second significant interaction was found between gender and subfield specialty when measuring for the likelihood of having (more) children [$F(1,169) = 6.558, p = .011$] (Fig.2). It was established that men will have children or have more children if a surgeon than if an OB/GYN ($M_{male\ surgeon} = 4.122, SD = 1.14; M_{male\ OB/GYN} = 3.533, SD = 1.03$); and that women will have children or more children if an OB/GYN than if a surgeon ($M_{female\ OB/GYN} = 3.432, SD = 1.23; M_{female\ surgeon} = 3.148, SD = 1.17$). The main effect of gender was significant [$F(1,169) = 9.211, p = .003$], in that male physicians will have more children compared to female physicians ($M_{males} = 3.820, SD = .886; M_{females} = 3.274, SD = .910$). A main effect of family status was also found [$F(1,169) = 18.187, p = .000$]. A physician has a higher rate of having children when they have no children compared to two children ($M_{no\ kids} = 3.920, SD = 1.17; M_{2\ kids} = 3.178, SD = 1.02$).

DISCUSSION

The results of this study provide support for the idea that success in traditionally male domains can have serious consequences for women. When acknowledged as successful in medicine, women are no longer perceived as being incompetent or unlikable, but they may pay a price. This price appears to have definite consequences on their perceived promotional opportunities and child rearing capabilities. The fact that negative reactions to women physicians occurred only when they were in a medical subfield specialty dominated by men, argues for the idea that these negative reactions derive from social disapproval for stereotype-based norm violation. Male physicians occupying a medical subfield specialty dominated by women seemed to elicit the same type of negative ratings that were directed at women physicians occupying a medical subfield specialty dominated by men, but to a much lesser degree. Success for men and women is OK, it seems, unless it is in an area regarded as "off limits" for them.

As the number of women physicians continue to increase it will be interesting to note if this division in medical subfield specialty remains. Perhaps the differences will be less pronounced in the future, since as times change so do patterns of social thought. It would be beneficial to repeat this experiment around ten years from now to see if these same results persist, especially across different college majors, careers, and age groups of the participants.

The feminization of the medical profession gives rise to many challenges for future research. Are there conditions under which success at traditionally male jobs do not have the detrimental consequences for women demonstrated in this investigation (and vice versa)? Will the minority position lend itself to weakened opportunities for men or will they still hold the top positions in spite of the female majority? Today medicine remains to be a professional challenge for women, and women have much to say regarding the future of medicine.

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