Letters

RESEARCH LETTER

PHYSICIAN WORK ENVIRONMENT AND WELL-BEING

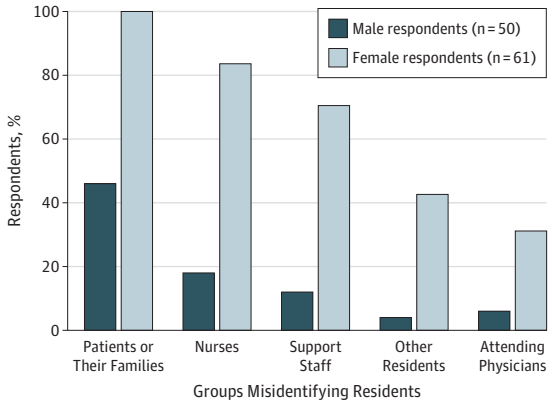
Use of "Doctor" Badges for Physician Role Identification During Clinical Training

Clinical care teams in academic medical centers consist of members with various functions and levels of training. Patients and their families are often disoriented by the changing tide of medical staff. Reports show that only 40% of inpatients correctly identify their hospital physicians.[1] Role misidentification, or incorrect identification of an individual's contribution to the health care team, has negative consequences for patient care and physician wellness. Frequent role misidentification of female physicians may contribute to a lesser sense of belonging, a perception of a lack of self-efficacy for career advancement, and increased burnout.[2,3] Although role misidentification is anecdotally acknowledged to be a common occurrence, to our knowledge, there are no evidence-based reports about its prevalence or possible interventions.

Methods | To promote the identification of residents at our institution as physicians, we decided to distribute new staff badges with the occupational title prominently displayed. On January 24, 2018, we provided badges with the title "Doctor" to all 217 internal medicine residents. Two months later, the residents were surveyed about their experiences of role misidentification both before and after receiving the badges; which groups had misidentified them as nonphysicians; and whether the new badge made a difference in their work experience. The survey was distributed and anonymous responses were collected from March 19 to March 29, 2018. All analyses were performed using Stata Statistical Software, Release 15.0 for Mac (StataCorp). Categorical variables were reported as frequencies and proportions and compared. Results were stratified according to the frequency of reported misidentification and by respondents' sex and race. Relative risks (risk ratios) were calculated and hypothesis testing was performed with the Pearson χ^2 or Fisher exact test using an α significance level of .05. This project was undertaken as a Clinical Quality Improvement/Measurement Initiative and, as such, did not require Partners HealthCare Institutional Review Board review per its policies.

Results | Of the 217 internal medicine residents, 112 (51.6%) completed the survey. One respondent did not identify their own sex and was excluded from the analysis, leaving a total of 111 respondents (61 [55.0%] female residents). Of those 111, 89 (80.2%) reported that they had experienced role misidentification, and 51 (45.9%) reported having experienced it on a daily or weekly basis. Only 22 (19.8%, all male residents) reported experiencing no role misidentification. Female residents were significantly more likely than male residents to report role misidentification (relative risk ratio, 3.63 [95% CI, 2.20-6.01]; $P < .001$). Patients and their families were the most frequently reported source of resident role misidentification (**Figure**). Other sources included nursing and support staff and attending physicians.

Figure. Proportion of Male and Female Resident Respondents Reporting Misidentification of Their Physician Role by Other Groups



Each bar shows the percentage of male or female respondents who reported experiencing role misidentification from the groups indicated before the distribution of Doctor badges. Respondents could select multiple groups. Support staff includes physician assistants, medical assistants, nutritional staff, environmental service staff, and physical therapists.

Of 111 respondents, 95 (85.6%) reported wearing the Doctor badge. Sixty-one of these 95 respondents (64.2%), including 45 of 55 female residents (81.8%), reported that they were somewhat or much more likely to be identified as a physician when wearing the badge. Female respondents were significantly more likely than male respondents to report improvement in their identification as physicians by patients and their families, medical staff (attending physicians, nurses, and other residents), and nonmedical hospital staff ($P < .001$ for all comparisons). Of the 55 female residents wearing the badge, 51 (92.7%) reported that their day-to-day work experience had improved.

Discussion | The prevalence of role misidentification experienced by our internal medicine residents, particularly female residents, was high before the distribution of the new badge. Residents most frequently reported being misidentified by patients and their families, possibly a result of the large care teams at our academic center, as well as female role stereotypes. Notably, residents were also misidentified by other care team members.

Gender-based role misidentification can evoke anxiety in persons whose ability to function professionally is being evaluated using stereotypes.[4] Frequent misidentification of female residents' role by other members of the health care team, combined with stereotype-driven patient-physician relationships, can result in a loss of credibility for female residents.

Badges are a low-cost tool that not only increases patients' comfort with and awareness of the role played by each member of the care team but also may improve team members' workplace experience, in part by reducing the "stereotype threat" experienced by female physicians. Role-identifying badges should be worn by all trainee and faculty physicians to improve their role recognition by patients and other hospital staff.

Our pilot study has limitations, including vulnerability to recall bias, as residents were given the survey after receiving the new badges and were asked about events that had occurred several months before. In addition, although more than half of our residents completed the survey, those who did not complete it may have had different experiences with regard to role misidentification than those reported by respondents. Future prospective studies are needed to evaluate the extent of resident role misidentification, elucidate its association with burnout, and test various possible interventions.

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