Foote MB, Jain N, Rome BN, DeFilippis EM, Powe CE, Yialamas MA. Association of perceived role misidentification with use of role identity badges among resident physicians. *JAMA Netw Open*. 2022;5(7):e2224236. doi:10.1001/jamanetworkopen.2022.24236

**eTable 1.** Study Pre-Badge and Post-Badge Survey Instrument

**eTable 2.** Detailed Characteristics of 161 Resident Participants in the Study Cohort Stratified by Self-Reported Misidentification Before Badge Disbursement

**eTable 3.** Characteristics of Residents Evaluated for Study Eligibility Based on Taking Both the Pre-Badge and Post-Badge Survey Versus Only the Pre-Badge Survey

**eTable 4.** Detailed Characteristics of 161 Resident Participants in the Study Cohort Stratified by Timing and Use of the “Doctor” Badge

**eFigure.** Change in Resident-Reported Misidentification Ordinal Scores in the Pre-Badge Survey and Post-Badge Survey

This supplemental material has been provided by the authors to give readers additional information about their work.
**eTable 1. Study Pre-Badge and Post-Badge Survey Instrument**

| Study pre-badge survey instrument |
|-----------------------------------|
| In the last three months spent rotating in a Partners hospital, how often have you personally been misidentified as a different member of the care team other than a physician? |
| More than once per day               |
| About once per day                  |
| A few times per week                |
| About once per week                 |
| About once per month                |
| Less than once per month            |
| Never                               |

*IF above question is not answered “Never”*

In the last three months spent rotating in a Partners hospital, which of the following individuals has misidentified you as a member of the care team other than a doctor? (Select all that apply)

- Patients
- Patients’ families
- Nurses
- Physician Assistants or Nurse Practitioners
- Clinical Support Staff (e.g. nurse assistants, nutritionists, physical therapists, medical assistants, social workers)
- Non-clinical support staff (e.g. food services, environmental services)
- Residents or fellows (including those in and not in your program)
- Attending Physicians

*IF above question is not answered “Never”*

In the last three months spent rotating in a Partners hospital, which of the following individuals was the MOST likely to misidentify you as a member of the care team other than a doctor?

- Patients
- Patients’ families
- Nurses
- Physician Assistants or Nurse Practitioners
- Clinical Support Staff (e.g. nurse assistants, nutritionists, physical therapists, medical assistants, social workers)
- Non-clinical support staff (e.g. food services, environmental services)
- Residents or fellows (including those in and not in your program)
- Attending Physicians

*IF above question is not answered “Never”*

Do you feel that being misidentified as a member of the care team other than a doctor negatively affects your overall well-being in the hospital?
| Yes | No |
|-----|----|
| If yes, please explain. |
| [Free Text Response] |
| Overall, based on your definition of burnout, how would you rate your level of burnout? |
| 1 - I enjoy my work. I have no symptoms of burnout |
| 2 - Occasionally I am under stress, and I don’t always have as much energy as I once did, but I don’t feel burned out |
| 3 - I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion |
| 4 - The symptoms of burnout that I’m experiencing won’t go away. I think about frustration at work a lot |
| 5 - I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help |
| What is your current level of training? (If you are on research, what is the highest PGY that you have completed?) |
| PGY1 |
| PGY2 |
| PGY3 |
| PGY4 |
| PGY5 |
| PGY6 |
| PGY7 |
| PGY8+ |
| What is your residency program? |
| Anesthesiology |
| Dermatology (including Medicine/Dermatology) |
| Emergency Medicine |
| Internal Medicine |
| Internal Medicine / Pediatrics |
| Medical Genetics |
| Neurology |
| Neurosurgery |
| OB/GYN |
| Oral Medicine |
| Orthopedic surgery |
| Otolaryngology / ENT |
| Pathology |
| Pediatrics |

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| Plastic Surgery | Psychiatry | Radiology | Radiation Oncology | Surgery | Urology |
|-----------------|------------|-----------|-------------------|---------|---------|
| What is your residency program’s affiliation? |
| Brigham and Women’s Hospital | Massachusetts General Hospital | Combination program (split equally between both campuses) |
| What is your age? |
| Less than 25 years old | 25 – 29 years old | 30 – 34 years old | 35 – 39 years old | 40 years old or greater |
| What is your gender identity? |
| Male | Female | Other [With free text response] | I prefer not to disclose my gender |
| What is your ethnicity? |
| Hispanic | Non-Hispanic | Prefer not to disclose |
| What is your race? |
| White | Black or African American | Native American or American Indian | Asian | Native Hawaiian or Other Pacific Islander | Biracial or multiracial | Prefer not to disclose |
| Would you be willing to be contacted further by a researcher about the experiences you report here? |
| Yes | No |
| Study post-badge survey instrument |
|------------------------------------|
| In the past three months, how often have you personally been misidentified as a different member of the care team other than a physician while at work? |
| More than once per day |
| About once per day |
| A few times per week |
| About once per week |
| About once per month |
| Less than once per month |
| Never |

*IF above question is not answered “Never”*

In the last three months spent rotating in a Partners hospital, which of the following individuals has misidentified you as a member of the care team other than a doctor? (Select all that apply)

- Patients
- Patients’ families
- Nurses
- Physician Assistants or Nurse Practitioners
- Clinical Support Staff (e.g. nurse assistants, nutritionists, physical therapists, medical assistants, social workers)
- Non-clinical support staff (e.g. food services, environmental services)
- Residents or fellows (including those in and not in your program)
- Attending Physicians

*IF above question is not answered “Never”*

In the last three months spent rotating in a Partners hospital, which of the following individuals was the MOST likely to misidentify you as a member of the care team other than a doctor?

- Patients
- Patients’ families
- Nurses
- Physician Assistants or Nurse Practitioners
- Clinical Support Staff (e.g. nurse assistants, nutritionists, physical therapists, medical assistants, social workers)
- Non-clinical support staff (e.g. food services, environmental services)
- Residents or fellows (including those in and not in your program)
- Attending Physicians

Overall, based on your definition of burnout, how would you rate your level of burnout?

1 - I enjoy my work. I have no symptoms of burnout
2- Occasionally I am under stress, and I don’t always have as much energy as I once did, but I don’t feel burned out

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3- I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion
4- The symptoms of burnout that I’m experiencing won’t go away. I think about frustration at work a lot
5- I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help

Have you ever received a separate badge to attach to your identification badge that clearly identifies you as a “Doctor” or “Physician” in large text?

I received a badge and wear it
I received a badge but do not wear it
I have never receive a badge

**IF above question answered “I received and wear it” or “I received a badge but do not wear it”**

When did you receive this “Doctor” or “Physician” identification badge?

Within the past 6 months
More than 6 months ago

**IF above question answered “I received a badge but do not wear it”**

What is the reason you do not wear the “Doctor” badge? (check all that apply)

I do not like the appearance of the badge
I do not feel like I need the badge
I feel that wearing the badge would have negative consequences
Other [Free text response]

**IF above question answered “I received a badge and wear it”**

Since wearing your doctor badge, are you more or less likely to be misidentified as a member of the care team other than a physician?

Less likely to be misidentified
No change
More likely to be misidentified

**IF above question answered “I received a badge and wear it”**

Since wearing your doctor badge, are you more or less likely to be misidentified by the following individuals

*GRID, options include: Less likely to be misidentified, no change, More likely to be misidentified, N/A*

Patients
Patients’ families
Nurses
Physician Assistants or Nurse Practitioners
Clinical Support Staff (e.g. nurse assistants, nutritionists, physical therapists, medical assistants, social workers)
Non-clinical support staff (e.g. food services, environmental services)  
Residents or fellows (including those in and not in your program)  
Attending Physicians  

**IF above question answered “I received a badge and wear it”**  
Overall, how does wearing a “Doctor” badge affect your day-to-day experience in the hospital?  

- Positively affects my day-to-day experience  
- No effect on my day-to-day experience  
- Negatively affects my day-to-day experience  
- No opinion  

**IF above question answered “Positively affects my day-to-day experience” or “Negatively affects my day-to-day experience”**  
Please explain how the “Doctor” badge affects your day-to-day experience in the hospital.  

[Optional free text response]  

Do you have any additional positive or negative feedback about “Doctor” identification badges?  

[Free text response]  

What is your current PGY Year? (If you are on research, what is the highest PGY that you have completed?)  

- PGY1  
- PGY2  
- PGY3  
- PGY4  
- PGY5  
- PGY6  
- PGY7  
- PGY8+  

What is your residency program?  

- Anesthesiology  
- Dermatology (including Medicine/Dermatology)  
- Emergency Medicine  
- Internal Medicine  
- Medical Genetics  
- Neurology  
- Neurosurgery  
- OB/GYN  
- Oral Medicine  
- Orthopedic surgery  
- Otolaryngology / ENT
| Pathology             |
|----------------------|
| Plastic Surgery      |
| Psychiatry           |
| Radiology            |
| Radiation Oncology   |
| Surgery              |
| Urology              |

What is your gender identity?
- Male
- Female
- Other [With free text response]
- I prefer not to disclose my gender

What is your ethnicity?
- Hispanic
- Non-Hispanic
- Prefer not to disclose

What is your race?
- White
- Black or African American
- Native American or American Indian
- Asian
- Native Hawaiian or Other Pacific Islander
- Biracial or multiracial
- Prefer not to disclose

Would you be willing to be contacted further by a researcher about the experiences you report here?
- Yes
- No

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eTable 2. Detailed Characteristics of 161 Resident Participants in the Study Cohort Stratified by Self-Reported Misidentification Before Badge Disbursement

| Characteristic                     | Misidentified Pre-Badge (n=81) | Not Misidentified Pre-Badge (n=80) | All Subjects (N=161) |
|-----------------------------------|--------------------------------|-----------------------------------|---------------------|
| Age-no. (% by row)                |                                |                                   |                     |
| 25-29                             | 42 (58%)                       | 30 (42%)                          | 72 (45%)            |
| 30-34                             | 35 (45%)                       | 43 (55%)                          | 78 (48%)            |
| 35-39                             | 4 (40%)                        | 6 (60%)                           | 10 (6%)             |
| Over 40                           | 0 (0%)                         | 1 (100%)                          | 1 (1%)              |
| Gender-no. (% by row)             |                                |                                   |                     |
| Female                            | 62 (79%)                       | 16 (21%)                          | 78 (48%)            |
| Male                              | 19 (24%)                       | 60 (76%)                          | 79 (49%)            |
| Not Specified                     | 0 (0%)                         | 4 (100%)                          | 4 (2%)              |
| Race-no. (% by row)               |                                |                                   |                     |
| Black/African American            | 4 (100%)                       | 0 (0%)                            | 4 (2%)              |
| Asian                             | 18 (49%)                       | 19 (51%)                          | 37 (23%)            |
| White                             | 53 (52%)                       | 48 (48%)                          | 101 (63%)           |
| Native American or American Indian| 0 (0%)                         | 1 (100%)                          | 1 (1%)              |
| Multiracial                       | 5 (62%)                        | 3 (38%)                           | 8 (5%)              |
| Not Specified                     | 1 (10%)                        | 9 (90%)                           | 10 (6%)             |
| Ethnicity-no. (% by row)          |                                |                                   |                     |
| Hispanic                          | 5 (42%)                        | 7 (58%)                           | 12 (7%)             |
| Non-Hispanic                      | 72 (53%)                       | 64 (47%)                          | 136 (84%)           |
| Not Specified                     | 4 (31%)                        | 9 (69%)                           | 13 (8%)             |
| PGY-no. (% by row)                |                                |                                   |                     |
| 1                                 | 14 (54%)                       | 12 (46%)                          | 26 (16%)            |
| 2                                 | 20 (62%)                       | 12 (38%)                          | 32 (20%)            |
| 3                                 | 29 (49%)                       | 30 (51%)                          | 59 (37%)            |
| 4                                 | 11 (38%)                       | 18 (62%)                          | 29 (18%)            |
| 5                                 | 5 (56%)                        | 4 (44%)                           | 9 (6%)              |
| 6                                 | 1 (33%)                        | 2 (67%)                           | 3 (2%)              |
| 7                                 | 1 (50%)                        | 1 (50%)                           | 2 (1%)              |
| 8                                 | 0 (0%)                         | 1 (100%)                          | 1 (1%)              |
| Program-no. (% by row)            |                                |                                   |                     |
| Dermatology                       | 9 (69%)                        | 4 (31%)                           | 13 (8%)             |
| Neurology                         | 7 (26%)                        | 20 (74%)                          | 27 (17%)            |
| Neurosurgery                      | 3 (60%)                        | 2 (40%)                           | 5 (3%)              |
| Oral Medicine                     | 3 (60%)                        | 2 (40%)                           | 5 (3%)              |

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| Specialty                | 1 (14%) | 6 (86%) | 7 (4%) |
|-------------------------|---------|---------|--------|
| Orthopedic Surgery      |         |         |        |
| Otolaryngology          | 6 (86%) | 1 (14%) | 7 (4%) |
| Pathology               | 3 (33%) | 6 (67%) | 9 (6%) |
| Plastic Surgery         | 1 (33%) | 2 (67%) | 3 (2%) |
| Psychiatry              | 15 (65%)| 8 (35%) | 23 (14%)|
| Radiation Oncology      | 5 (56%) | 4 (44%) | 9 (6%) |
| Radiology               | 0 (0%)  | 1 (100%)| 1 (1%) |
| Surgery                 | 23 (56%)| 18 (44%)| 41 (25%)|
| Urology                 | 1 (14%) | 6 (86%) | 7 (4%) |
eTable 3. Characteristics of Residents Evaluated for Study Eligibility Based on Taking Both the Pre-Badge and Post-Badge Survey Versus Only the Pre-Badge Survey

| Characteristic                  | Pre-badge survey only (n = 99) | Pre-badge and Post-badge survey (n = 161) | Combined Group (N=260) |
|--------------------------------|--------------------------------|------------------------------------------|------------------------|
| Age-no. (% by column)           |                                |                                          |                        |
| 30 and Older                    | 59 (60%)                       | 89 (55%)                                 | 148 (57%)              |
| Under 30                        | 40 (40%)                       | 72 (45%)                                 | 112 (43%)              |
| Gender-no. (% by column)         |                                |                                          |                        |
| Female                          | 44 (44%)                       | 78 (48%)                                 | 122 (47%)              |
| Male                            | 53 (54%)                       | 79 (49%)                                 | 132 (51%)              |
| Unspecified                     | 2 (2%)                         | 4 (3%)                                   | 6 (2%)                 |
| Race-no. (% by column)          |                                |                                          |                        |
| Non-URM                         | 82 (83%)                       | 131 (81%)                                | 213 (82%)              |
| URM                             | 12 (12%)                       | 20 (12%)                                 | 32 (12%)               |
| Not Specified                   | 5 (5%)                         | 10 (6%)                                  | 15 (6%)                |
| PGY-no. (% by column)           |                                |                                          |                        |
| PGY 1-2                         | 35 (35%)                       | 58 (36%)                                 | 93 (36%)               |
| PGY 3 or More                   | 64 (65%)                       | 103 (64%)                                | 167 (64%)              |
| Program-no. (% by column)       |                                |                                          |                        |
| Non Surgical Program            | 45 (45%)                       | 87 (54%)                                 | 132 (51%)              |
| Surgical Program                | 54 (55%)                       | 74 (46%)                                 | 128 (49%)              |

1Residents that self-identified as a race or ethnicity as African American, Hispanic, Native American, Native Hawaiian or other Pacific Islander, or Biracial/Multiracial were categorized as under-represented in medicine (URM)

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**eTable 4.** Detailed Characteristics of 161 Resident Participants in the Study Cohort Stratified by Timing and Use of the “Doctor” Badge

| Characteristic                           | Received and Wore Badge Within Trial Period (n=85) | Wore Badge But Received Before Trial Period (n=21) | Did Not Wear Badge Within Trial Period (n=55) | All Subjects (N=161) |
|------------------------------------------|---------------------------------------------------|---------------------------------------------------|-----------------------------------------------|---------------------|
| **Age-no. (% by column)**                |                                                   |                                                   |                                               |                     |
| 25-29                                    | 38 (45%)                                          | 12 (57%)                                          | 22 (40%)                                      | 72 (45%)            |
| 30-34                                    | 39 (46%)                                          | 9 (43%)                                           | 30 (55%)                                      | 78 (48%)            |
| 35-39                                    | 8 (9%)                                            | 0 (0%)                                            | 2 (4%)                                        | 10 (6%)             |
| Over 40                                  | 0 (0%)                                            | 0 (0%)                                            | 1 (1.8%)                                      | 1 (1%)              |
| **Gender-no. (% by column)**             |                                                   |                                                   |                                               |                     |
| Female                                   | 51 (60%)                                          | 14 (67%)                                          | 13 (24%)                                      | 78 (48%)            |
| Male                                     | 33 (39%)                                          | 6 (29%)                                           | 40 (73%)                                      | 79 (49%)            |
| Not Specified                            | 1 (1%)                                            | 1 (5%)                                            | 2 (4%)                                        | 4 (2%)              |
| **Race-no. (% by column)**               |                                                   |                                                   |                                               |                     |
| Black/African American                   | 2 (2.4%)                                          | 1 (5%)                                            | 1 (2%)                                        | 4 (2%)              |
| Asian                                    | 21 (25%)                                          | 6 (29%)                                           | 10 (18%)                                      | 37 (23%)            |
| White                                    | 56 (66%)                                          | 12 (57%)                                          | 33 (60%)                                      | 101 (63%)           |
| Multiracial                              | 4 (5%)                                            | 0 (0%)                                            | 4 (7%)                                        | 8 (5%)              |
| Native American or American Indian       | 0 (0%)                                            | 0 (0%)                                            | 1 (2%)                                        | 1 (1%)              |
| Not Specified                            | 2 (2%)                                            | 2 (10%)                                           | 6 (11%)                                       | 10 (6%)             |
| **Ethnicity-no. (% by column)**          |                                                   |                                                   |                                               |                     |
| Hispanic                                 | 6 (7%)                                            | 3 (14%)                                           | 3 (5%)                                        | 12 (7%)             |
| Non-Hispanic                             | 78 (92%)                                          | 15 (71%)                                          | 43 (78%)                                      | 136 (84%)           |
| Not Specified                            | 1 (1%)                                            | 3 (14%)                                           | 9 (16%)                                       | 13 (8%)             |
| **PGY-no. (% by column)**                |                                                   |                                                   |                                               |                     |
| 1                                        | 16 (19%)                                          | 4 (19%)                                           | 6 (11%)                                       | 26 (16%)            |
| 2                                        | 16 (19%)                                          | 7 (33%)                                           | 9 (16%)                                       | 32 (20%)            |
| 3                                        | 34 (40%)                                          | 6 (29%)                                           | 19 (35%)                                      | 59 (37%)            |
| 4                                        | 13 (15%)                                          | 4 (19%)                                           | 12 (22%)                                      | 29 (18%)            |
| 5                                        | 4 (5%)                                            | 0 (0%)                                            | 5 (9%)                                        | 9 (6%)              |
| 6                                        | 2 (2%)                                            | 0 (0%)                                            | 1 (2%)                                        | 3 (2%)              |
| 7                                        | 0 (0%)                                            | 0 (0%)                                            | 2 (4%)                                        | 2 (1%)              |
| 8                                        | 0 (0%)                                            | 0 (0%)                                            | 1 (2%)                                        | 1 (1%)              |
| **Program-no. (% by column)**            |                                                   |                                                   |                                               |                     |
| Dermatology                              | 5 (6%)                                            | 2 (10%)                                           | 6 (11%)                                       | 13 (8%)             |
| Neurology                                | 15 (18%)                                          | 4 (19%)                                           | 8 (15%)                                       | 27 (17%)            |
| Neurosurgery                             | 1 (1%)                                            | 1 (5%)                                            | 3 (5%)                                        | 5 (3%)              |
| Oral Medicine                            | 4 (5%)                                            | 1 (5%)                                            | 0 (0%)                                        | 5 (3%)              |
| Specialty                | 2022 (2%) | 2023 (10%) | 2024 (16%) | 2025 (7%) |
|-------------------------|-----------|------------|------------|-----------|
| Orthopedic Surgery      | 2 (2%)    | 0 (0%)     | 9 (16%)    | 11 (7%)   |
| Otolaryngology          | 0 (0%)    | 2 (10%)    | 5 (9%)     | 7 (4%)    |
| Pathology               | 5 (6%)    | 1 (5%)     | 3 (5%)     | 9 (6%)    |
| Plastic Surgery         | 1 (1%)    | 0 (0%)     | 2 (4%)     | 3 (2%)    |
| Psychiatry              | 16 (19%)  | 4 (19%)    | 3 (5%)     | 23 (14%)  |
| Radiation Oncology      | 5 (6%)    | 1 (5%)     | 3 (5%)     | 9 (6%)    |
| Radiology               | 1 (1%)    | 0 (0%)     | 0 (0%)     | 1 (1%)    |
| Surgery                 | 27 (32%)  | 3 (14%)    | 11 (20%)   | 41 (25%)  |
| Urology                 | 3 (4%)    | 2 (10%)    | 2 (4%)     | 7 (4%)    |
**eFigure.** Change in Resident-Reported Misidentification Ordinal Scores in the Pre-Badge Survey and Post-Badge Survey

|                      | Post-Badge Survey |                      |
|----------------------|-------------------|----------------------|
|                      | Less than once per month | Once per month | Once per week | A few times per week | Once per day | More than once per day | Total |
| Pre-Badge Survey     |                   |                   |                   |                   |                   |                   |       |
| Never                | 68%               | 18%               | 5%               | 5%               | 0%               | 0%               | 3%    | 38    |
| Less than once per month | 61%             | 17%               | 11%              | 6%               | 6%               | 0%               | 0%    | 18    |
| Once per month       | 29%               | 25%               | 21%              | 21%              | 4%               | 0%               | 0%    | 24    |
| Once per week        | 27%               | 10%               | 17%              | 37%              | 10%              | 0%               | 0%    | 30    |
| A few times per week | 17%               | 9%                | 22%              | 0%               | 35%              | 9%               | 9%    | 23    |
| Once per day         | 7%                | 0%                | 27%              | 7%               | 40%              | 20%              | 0%    | 15    |
| More than once per day | 8%              | 0%                | 15%              | 0%               | 38%              | 23%              | 15%   | 13    |
| Total                | 58                | 21                | 25                | 20               | 24               | 8                | 5     | 161   |

Each cell compares individual residents’ reported frequency of misidentification on the pre-badge (row) and post-badge (column) surveys.