JOURNAL OF WOMEN'S HEALTH
Volume 00, Number 00, 2020

DOI: 10.1089/jwh.2020.8482

Citizenship Tasks and Women Physicians: Additional Woman Tax in Academic Medicine?

Priscila Rodrigues Armijo, MD,[1,2] Julie K. Silver, MD,[3] Allison R. Larson, MD,[4] Philomena Asante, MD, MPH,[5] and Sasha Shillcutt, MD, MS[6]

Abstract

Background: Our aim was to evaluate differences in reported citizenship tasks among women physicians due to personal or demographic factors and time spent performing those tasks for work.
Materials and Methods: Attendees of a national women physician's leadership conference (Brave Enough Women Physicians Continuing Medical Education Conference) replied to a survey using Qualtrics© (2019 Qualtrics, Provo, UT), in September 2019. Data collected included age, race, ethnicity, training level, medical practice, specialty, current annual total compensation, educational debt, and number of children. We asked about employment-related citizenship tasks, including time spent on those activities, and perceived obligation to volunteer for citizenship tasks. Descriptive and impact of demographic factors on those opinions were evaluated using IBM SPSS v26.0.
Results: Three hundred eighty-nine women physicians replied. When compared with their younger counterparts, women physicians older than 49 years stated they feel obligated to volunteer for these tasks because of their gender ($p = 0.049$), and were less likely able to decide which citizenship tasks they were assigned to ($p = 0.021$). Furthermore, a higher proportion of women of color physicians perceived race as a factor in feeling obligated to volunteer for work-related citizenship tasks, when compared with White women physicians ($p < 0.001$). Additionally, nearly 50% of women physicians reported spending more time on citizenship tasks than their male counterparts.
Conclusions: Our findings suggest that gender, race, and age may play a role in the decision of women physicians to participate in work-related citizenship tasks. To our knowledge, this is the first study to report on work-related citizenship tasks as described by women physicians. Still, an in-depth assessment on the role citizenship tasks play in the culture of healthcare is warranted.

Keywords: women physicians, cultural diversities, healthcare disparities, organizational citizenship, academic service

Introduction

Citizenship tasks are described as uncompensated work-related duties that require dedicated time, often performed while at work but sometimes done during off-hours.[1–6] These tasks may be volunteer-based and are roles that contribute to the organization's goals and effectiveness,[5,6] but are less likely to contribute to career advancement. Sometimes citizenship tasks are assigned or there is pressure on individuals to participate by supervisors or work peers. While citizenship tasks may take a small amount of time and effort such as asking someone to take notes during a work meeting, or pose for pictures for a newsletter or brochure, some tasks may require many hours of one's work effort over weeks, months, or years (Fig. 1).

Some studies have suggested that those who participate in citizenship tasks may experience career benefits.[7,8] Other reports indicate the opposite; time spent on these tasks may have detrimental effects on career advancement.[2–6] Select studies propose that citizenship tasks may result in gendered

[1]Department of Surgery, University of Nebraska Medical Center, Omaha, Nebraska, USA.
[2]Department of Surgery, Center for Advanced Surgical Technology, University of Nebraska Medical Center, Omaha, Nebraska, USA.
[3]Department of Physical Medicine and Rehabilitation, Harvard Medical School, Massachusetts General Hospital, Brigham and Women's Hospital, Spaulding Rehabilitation Hospital, Boston, Massachusetts, USA.
[4]Department of Dermatology, Boston University School of Medicine, Boston Medical Center, Boston, Massachusetts, USA.
[5]Northeastern University Health and Counseling Services, Boston, Massachusetts, USA.
[6]Department of Anesthesiology, University of Nebraska Medical Center, Omaha, Nebraska, USA.

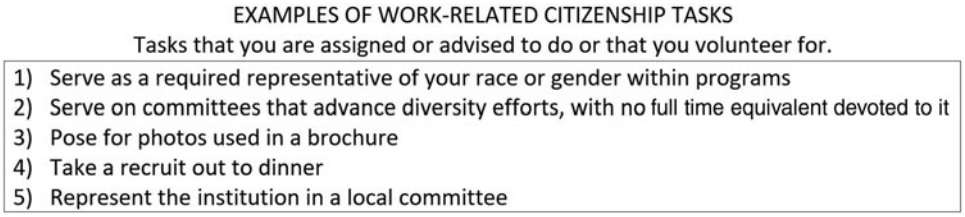

FIG. 1. Example of work-related citizenship tasks.

expectations and consequences for women in the workplace. For example, literature has shown that men are rewarded for their altruistic work tasks, while women are expected, not rewarded, to enroll in similar activities.[1,2,9]

A recent focus on the culture and climate of the workplace,[10–13] together with reports documenting slow progress in closing many gaps for people underrepresented in medicine (URiM),[14–17] inclusive of women in medicine,[18–22] has led us to consider the role that citizenship tasks may play. For example, although asking someone to take notes during a meeting that they are already attending may seem like a benign request, even small tasks may promote gender bias and expectations if a supervisor tends to ask primarily women who attend the meeting to record and disseminate minutes. Another common example is a hospital's communications team asking people of color to pose for photos to show diversity in marketing content (that may not reflect true inclusion, particularly in areas such as compensation and career advancement). Indeed, these types of requests may be perceived as a ''gender tax'' or ''minority tax.''[23–25]

This survey study was aimed at better understanding how much time women physicians report performing citizenship tasks for work and whether there are differences in reported citizenship tasks among women physicians due to personal factors (*e.g.*, number of children) or demographic factors (*e.g.*, race/ethnicity). We hypothesized that with regard to citizenship tasks, women physicians would report that they (1) spend considerable time on them; and (2) perceive that they spend more time on them than do male colleagues. We were also interested in determining whether demographic or other factors (*e.g.*, number of children, debt, compensation) influenced the amount of time women physicians reported spending on citizenship tasks.

Materials and Methods

Study design

We developed a survey that was applied to all attendees of a national women physician's leadership conference (Brave Enough Women Physicians Continuing Medical Education Conference). The survey was generated using Qualtrics software, Version September/2019 of Qualtrics© (2019 Qualtrics, Provo, UT). After approval by the Institutional Review Board at the University of Nebraska Medical Center, the survey link was sent through e-mail 2 weeks before the conference start date to all registered conference attendees. Subsequently, the survey link was available in the private conference application for all registered attendees during the period of the conference, from September 12, 2019, to September 14, 2019. Since the survey was anonymous, each conference attendee was asked to complete the survey only once.

Survey data collected included participants' age, race, ethnicity, training level, area of primary medical practice, specialty, current annual total compensation, educational debt, and number of children. Only participants who self-identified as physicians were included in the analysis. The survey questioned participants regarding employment-related citizenship tasks, including time spent on those activities, perceived obligation to volunteer for citizenship tasks. Questions about the impact of demographic factors (*i.e.*, race/ethnicity, sexual orientation, and gender) on those decisions were included through a 7-point Likert scale, ranging from strongly agree to strongly disagree (Fig. 2).

Statistical analyses

Descriptive analyses were used to evaluate demographic factors and citizenship-related questions individually. Subsequently, analyses were performed to assess the impact of those demographics (*e.g.*, age, compensation, medical specialty, and children) on participants' opinions regarding citizenship tasks. Comparisons were performed between non-Hispanic White and Euro American women (WW) versus women who self-identified as having another race/ethnicity (women of color [WOC]). Comparisons were also performed to assess potential correlations between how many hours women spend doing citizenship tasks for work and which demographic, personal, or financial factors affect these. Factors included age-group ranges, having children or not, compensation, and educational debt. For analyses of Likert-scale questions, answers were grouped into agree (strongly agree, agree, and somewhat agree), neither agree nor disagree, and disagree (somewhat disagree, disagree, and strongly disagree). For all analyses in this study, missing data were excluded pairwise. Statistical analyses were conducted using IBM SPSS v26.0 (IBM Corporation, Armonk, NY), with $\alpha = 0.05$.

Results

Out of 425 participants who received the survey, 389 self-identified as physicians and completed the survey (response rate of 91.5%). All participants self-identified as women, with the majority being in the 40–49-year age group (50.9%, $N = 198$), followed by 30–39 years (39.6%, $N = 154$) and 50–59 years (8.5%, $N = 33$; Table 1). The majority of participants were non-Hispanic White or Euro American (64.0%, $N = 241$), whereas 13.5% self-identified as South Asian or Indian American, and 5.0% as Black, Afro Caribbean, or African American. One-third of the respondents stated their primary practice was hospital-owned (32.7%, $N = 126$), while 23.3% were in academic practice ($N = 90$) and 15.5% in private practice ($N = 60$). The majority of the physician respondents were subspecialists (64.7%, $N = 251$) versus 35.3% ($N = 137$) who had specialties in primary care (family medicine, pediatrics, internal medicine, and geriatrics).

Regarding educational debt, nearly half ($N = 173$, 47.4%) of the women physicians reported they had accumulated over

SURVEY QUESTIONS OF WOMEN PHYSICIAN PARTICIPANTS

CITIZENSHIP QUESTIONS
1) What is the greatest amount of educational debt that you accumulated at any point in time?
2) What is your current amount of educational debt?
3) Approximately how many hours do you work each week (include time doing work related tasks during off hours at home)?
4) Participating in citizenship tasks at my workplace impacts my compensation in this manner
5) In general, how much time would you estimate that you spend on citizenship tasks for work each week (include hours spent on these work-related tasks even if you are at home doing them)
LEVEL OF AGREEMENT QUESTIONS (7-point Likert-scale)
1) I feel obligated to volunteer for citizenship tasks at work because of my RACE/ETHNICITY
2) I feel obligated to volunteer for citizenship tasks at work because of my GENDER
3) I feel obligated to volunteer for citizenship tasks at work because of my SEXUAL ORIENTATION
4) I feel obligated to volunteer for citizenship tasks at work because of my ACADEMIC RANK
5) I am able to decide which citizenship tasks I am assigned to at work
6) I spend more time on citizenship tasks than most of my male colleagues
7) I spend more time on citizenship tasks than most of my female colleagues
8) I think that I am asked to participate in many citizenship tasks because of my gender
9) I think that I am asked to participate in many citizenship tasks because of my race/ethnicity
10) I think that I am asked to participate in many citizenship tasks because of my sexual orientation
11) I think that I do more than my fair share of citizenship tasks at work

FIG. 2. Survey questions of women physician participants.

150K of educational debt at any point in time, whereas a much smaller percent 11.8% ($N=43$) had accumulated no debt (Table 2). Currently, 47.0% ($N=172$) of respondents reported having no educational debt, 36.4% ($N=134$) had <150K in educational debt, and 9.5% ($N=35$) had more than 200K in educational debt (Table 2). A plurality ($N=133$) of participants reported an annual compensation of 201–300K (35.4%), followed by 301–400K (21.1%, $N=79$; Table 2).

Most participants ($N=242$, 67%) reported spending between 1 and 5 hours per week on work-related citizenship tasks and 12.2% ($N=44$) spent 6 or more hours on weekly work-related citizenship tasks (Table 2). Although most respondents ($N=266$, 72.7%) agreed that they were able to decide to which work-related citizenship tasks they were assigned, nearly half ($N=176$, 49.0%) of respondents reported doing ''more than their fair share'' of citizenship tasks in general (Table 2).

Subsequently, we explored the role of gender in citizenship task participation. Forty-seven percent ($N=166$) of the women physicians perceived that they spent more time on citizenship tasks than their male colleagues. By comparison, less than one-third ($N=109$, 30.4%) thought they did more citizenship tasks than their female colleagues (Table 2). Moreover, 44.2% of those surveyed ($N=163$) reported they feel obligated to volunteer for citizenship tasks because of their gender, and a third (35.6%, $N=129$) reported they believe they were asked to participate in citizenship tasks because of their gender (Table 2).

To better understand the role of race and ethnicity in citizenship task participation, we compared the perceptions of WW with women who self-identified with another race/ethnicity (WOC). The majority of survey participants identified themselves as WW (64.0%, $N=241$) versus 36.1% ($N=136$) in the WOC group (Table 3). A statistically significantly higher proportion of WOC reported perceiving race/ethnicity as a factor that affects their citizenship task participation when compared with WW (12.5% vs. 3.4%, $p<0.001$). Similarly, 14.5% of WOC reported being asked to participate in citizenship tasks because of their race/ethnicity, a statistically significant higher proportion, compared with 0.9% in the WW group ($p<0.001$). No significant differences were seen in perceptions of gender ($p=0.058$), sexual orientation ($p=0.557$), or academic ranking ($p=0.586$) as factors affecting citizenship task participation between WOC and WW. Likewise, the ability to decide to which citizenship tasks they are assigned ($p=0.430$) was similar between the two groups.

We found that older age was statistically significantly associated with an increase in feeling obligated to volunteer for citizenship tasks because of gender ($p=0.049$; Table 4). Furthermore, respondents who were 50 years or older reported significantly less ability to choose to which citizenship tasks they were assigned (61.8%) compared with those younger (40–49 years: 70.3% and 30–39 years: 78.2%; $p=0.021$). However, we did not find any significant correlation in hours spent doing citizenship tasks based on age ($p=0.072$), having children ($p=0.556$), compensation ($p=0.069$), or debt ($p=0.565$; Table 5).

We evaluated differences among the 14 medical specialties represented in the cohort and found no significant differences. Pathology ($N=6$, 100%), pediatrics ($N=45$, 90%), surgery ($N=20$, 87.0%), and emergency medicine ($N=12$, 85.7%) were the specialties with the highest proportion of

Table 1. Demographics of Women Physicians ($N=389$)

	N	%*
Race/ethnicity ($N=377$)		
Asian, Pacific Islander	17	4.5
South Asian or Indian American	51	13.5
East Asian or Asian American	15	4.0
Black, Afro-Caribbean, or African American	19	5.0
Middle Eastern or Arab American	9	2.4
Non-Hispanic White or Euro-American	241	64.0
Latino or Hispanic American	25	6.6
Age ($N=389$)		
30–39 years	154	39.6
40–49 years	198	50.9
50–59 years	33	8.5
60–69 years	4	1.0
Primary practice ($N=386$)		
Academic practice	90	23.3
Hospital owned practice	126	32.7
Governmental practice (VA, practice)	13	3.4
Private practice (owned)	60	15.5
Other	97	25.1
Primary medical specialty ($N=388$)		
Anesthesiology	47	12.1
Dermatology	11	2.8
Emergency medicine	15	3.9
Family medicine	41	10.6
Internal medicine	41	10.6
Neurology	7	1.8
Obstetrics-gynecology	38	9.8
Ophthalmology	7	1.8
Pathology	6	1.5
Pediatrics	52	13.4
Physical medicine and rehabilitation	4	1.0
Psychiatry	14	3.6
Radiology	13	3.4
Surgery	26	6.7
Other	66	17.0

*The percent was calculated after missing data was deleted pairwise.
VA, Veterans affairs.

physicians spending 1 or more hours working on work-related citizenship tasks (Table 5).

Discussion

To our knowledge, this is the first study to report on work-related citizenship tasks as described by women physicians. Our evaluation included the impact of race/ethnicity, age, compensation, educational debt, medical specialty, and children on the workload of citizenship tasks in this population. When compared with their younger counterparts, women physicians older than 49 years stated they feel obligated to volunteer for these tasks because of their gender ($p=0.049$), and were less likely to being able to decide which citizenship tasks they were assigned to ($p=0.021$). We also found that a higher proportion among WOC physicians perceived race/ethnicity as a factor in feeling obligated to volunteer for work-related citizenship tasks, when compared with White women physicians ($p<0.001$). The novel findings in this study on citizenship task differences and perceptions among women physicians pertain to the ongoing work of improving gender biases and expectations in healthcare.

Table 2. Educational Debt, Annual Compensation, Hours Worked Weekly, Citizenship Tasks

	N	%*
Greatest amount of educational debt accumulated at any point in time ($N=365$)		
None	43	11.8
Less than 50K	33	9.0
51–100K	59	16.2
101–150K	57	15.6
151–200K	60	16.4
More than 200K	113	31.0
Current amount of educational debt ($N=367$)		
None	172	47.0
Less than 50K	42	11.4
51–100K	46	12.5
101–150K	46	12.5
151–200K	26	7.1
More than 200K	35	9.5
Current annual total compensation (include bonuses/incentives) ($N=375$)		
Less than 100K	9	2.4
101–200K	66	17.6
201–300K	133	35.4
301–400K	79	21.1
401–500K	48	12.8
More than 500K	40	10.7
Hours worked each week (include time doing work related tasks during off hours at home) ($N=369$)		
None	3	0.8
1–10 hours	4	1.1
11–20 hours	7	1.9
21–30	26	7.0
31–40	52	14.1
41–50	125	33.9
51–60	80	21.7
61–70	38	10.3
>70hrs	34	9.2
Citizenship Tasks Questions		
Hours spent on work-related citizenship tasks each week ($N=361$)		
Zero hours	75	20.8
1–5 hours	242	67.0
6–10 hours	29	8.0
11–15 hours	13	3.6
More than 15 hours	2	0.6
''I am able to decide which citizenship tasks I am assigned to at work'' ($N=366$)		
Agree	266	72.7
Neither agree nor disagree	54	14.7
Disagree	46	12.6
''I think that I do more than my fair share of citizenship tasks at work'' ($N=359$)		
Agree	176	49.0
Neither agree nor disagree	117	32.6
Disagree	66	18.4
''I spend more time on citizenship tasks than most of my'':		
a. Male colleagues ($N=351$)		
Agree	166	47.3
Neither agree nor disagree	116	33.0
Disagree	69	19.7
b. Female colleagues ($N=359$)		
Agree	109	30.4

(*continued*)

TABLE 2. (CONTINUED)

	N	%*
Neither agree nor disagree	154	42.9
Disagree	96	26.7
''I feel obligated to volunteer for citizenship tasks at work because of my'':		
a. gender ($N=369$)		
Agree	163	44.2
Neither agree nor disagree	82	22.2
Disagree	124	33.6
b. race ($N=368$)		
Agree	25	6.8
Neither agree nor disagree	116	31.5
Disagree	227	61.7
c. sexual orientation ($N=368$)		
Agree	15	4.1
Neither agree nor disagree	120	32.6
Disagree	233	63.3
d. academic rank ($N=368$)		
Agree	127	34.5
Neither agree nor disagree	94	25.5
Disagree	147	40.0
''I think that I am asked to participate in many citizenship tasks because of my'':		
a. gender ($N=362$)		
Agree	129	35.6
Neither agree nor disagree	114	31.5
Disagree	119	32.9
b. race/ethnicity ($N=358$)		
Agree	21	5.9
Neither agree nor disagree	145	40.5
Disagree	192	53.6
c. sexual orientation ($N=361$)		
Agree	5	1.4
Neither agree nor disagree	137	37.9
Disagree	219	60.7

*The percent was calculated after missing data was deleted pairwise.

While studies have comprehensively investigated benefits and disadvantages of participating in citizenship tasks for work,[4,6–8] few have explored how demographic factors impact self-perception and citizenship task load, especially among women physicians.[18–22] Our study highlights similar work found in the nonmedical literature as it pertains to gender and citizenship work tasks.[14,16,17,19,21,22] We found that the majority (67.0%) of women physicians reported spending between 1 and 5 hours weekly on work-related citizenship tasks and that nearly 50.0% of the women physicians surveyed reported a perception that they do more work-related citizenship tasks than their male colleagues. These findings suggest that citizenship tasks may be a perceived or real area of inequity in healthcare work environments and should be evaluated further as a metric of gender equity as it pertains to a 'culture of wellness.'

Our study found that for women physicians who self-identified as having a race/ethnicity other than non-Hispanic White or Euro American, their race/ethnicity is a perceived factor in being asked to participate in work-related citizenship tasks ($p<0.001$), Minority tax is defined as ''the tax of extra responsibilities placed on minority faculty in the name of efforts to achieve diversity, but this unfair tax is, in reality, complex,'' according to Rodríguez et al.[25] Underrepresented minority faculty may feel obligated to serve on tasks related to community efforts that represent diversity.[25] The minority tax may negatively impact these individuals' careers compared with those who are not underrepresented, competing for time devoted to scholarly activities. Physicians who are underrepresented minorities are known to experience several disparities, including racism, isolation, compensation discrepancies, promotional disparities, and spend more time caring for underrepresented populations.[24–27] A recent review stated that gender (female) and race (non-Caucasian) are associated with a higher load of citizenship tasks and these individuals are asked more often to engage in this type of work-related activity.[4] Similar to other studies, our study suggests that underrepresented minority faculty often feel obligated to volunteer for citizenship tasks and may believe they have a responsibility to advocate for diversity.[24,28] We found that 44.2% of woman physicians feel obligated to volunteer for citizenship tasks because of their gender and 35.6% reported being asked to participate in citizenship activities because of their gender. There was also a significant fourfold increase in the perception of race/ethnicity as a factor affecting the obligation to participate in such tasks among the WOC group, compared with WW physicians. Participation in uncompensated citizenship tasks may be a contributing factor to differences in pay by race described in the literature.[27]

Studies have explored how being a good citizen could positively impact one's career. For example, one study included 278 members of a women's professional business association and found a positive correlation between participating in work-related citizenship tasks and promotion rates, which also affects compensation.[29] Another study of 184 employees reported that organizational citizenship behavior is positively related to team-member exchange and to servant leadership.[30] Likewise, reports have found a positive relationship between organizational citizenship tasks and work engagement,[5,6] which leads to organization effectiveness.[5]

However, other reports suggest engaging in citizenship tasks does not outweigh the negative consequences for career advancement due to the time spent on such tasks.[6,29] For example, physicians in academic medicine who serve on multiple committees may not be as productive in publishing research and thus may not meet traditional criteria used for promotion, such as number of publications, citations, and Hirsch-index.[26] This may in turn impact promotion, tenure, and compensation. In this study, we reported that 79.2% of women physicians spent at least 1 hour per week on work-related citizenship tasks, with more than 12.2% spending at least 6 hours per week. Furthermore, 49.0% of our cohort stated that they spent more time participating in those tasks that what they felt was fair. A survey of 1066 K award recipients found that women feel more pressure to use their K award-related time to serve in administrative roles, perform citizenship tasks, and mentoring activities.[31] K awards are federally funded career development grants that support young scientists who are transitioning to become independent investigators.[31]

Nearly half of the survey participants had no current educational debt. This may be a factor of the age of the respondents (most were in their forties), or the fact that most were subspecialists. Educational debt is known to influence specialty choice. Medical students with greater debt are more likely to pursue higher paying specialties.[32] Analysis of a

Table 3. Citizenship Tasks Between Non-Hispanic White or Euro American Women (WW) and Another Race/Ethnicity (Women of Color)

	WW (N = 241)		*WOC (N = 136)*		
	N	%*	N	%*	
"I feel obligated to volunteer for citizenship tasks at work because of my":					
(a) Gender (*N* = 369)					0.058
Agree	105	45.1	58	42.6	
Neither agree nor disagree	43	18.4	39	28.7	
Disagree	85	36.5	39	28.7	
(b) Race/ethnicity (*N* = 368)					<0.001[a]
Agree	8	3.4	17	12.5	
Neither agree nor disagree	67	28.9	49	36	
Disagree	157	67.7	70	51.5	
(c) Sexual orientation (*N* = 368)					0.557
Agree	8	3.4	7	5.1	
Neither agree nor disagree	73	31.5	47	34.6	
Disagree	151	65.1	82	60.3	
(d) Academic rank (*N* = 368)					0.586
Agree	79	34.1	48	35.3	
Neither agree nor disagree	56	24.1	38	27.9	
Disagree	97	41.8	50	36.8	
"I am able to decide which citizenship tasks I am assigned to at work" (*N* = 366)					0.430
Agree	169	73.5	97	71.3	
Neither agree nor disagree	30	13	24	17.7	
Disagree	31	13.5	15	11	
"I think that I am asked to participate in many citizenship tasks because of my":					
(a) Gender (*N* = 362)					0.732
Agree	80	34.8	49	37.1	
Neither agree nor disagree	71	30.9	43	32.6	
Disagree	79	34.3	40	30.3	
(b) Race/ethnicity (*N* = 360)					<0.001[a]
Agree	2	0.9	19	14.5	
Neither agree nor disagree	82	35.8	63	48.1	
Disagree	145	63.3	49	37.4	
(c) Sexual orientation (*N* = 361)					0.037
Agree	3	1.3	2	1.5	
Neither agree nor disagree	77	33.6	60	45.5	
Disagree	149	65.1	70	53	

*The percent was calculated after missing data was deleted pairwise.
[a]Agree vs. disagree.
WOC, women of color; WW, non-Hispanic White and Euro American women.

Table 4. Citizenship Questions by Age Group

	30–39 years (N = 154)		*40–49 years (N = 198)*		*50 years or older (N = 37)*		
	N	%*	N	%*	N	%*	p-*value*
"I feel obligated to volunteer for citizenship tasks at work because of my":							
a. Gender (*N* = 369)							0.049
Agree	55	37.2[a]	87	46.8	21	60.0[a]	
Neither agree nor disagree	34	22.9	42	22.6	6	17.1	
Disagree	59	39.9	57	30.6	8	22.9	
b. Race/ethnicity (*N* = 368)							0.779
Agree	7	4.7	15	8.1	3	8.6	
Neither agree nor disagree	43	29.1	60	32.4	13	37.1	
Disagree	98	66.2	110	59.5	19	54.3	
c. Sexual orientation (*N* = 368)							0.787
Agree	3	2.0[a]	8	4.3	4	11.4[a]	
Neither agree nor disagree	46	31.1	61	33	13	37.2	
Disagree	99	66.9	116	62.7	18	51.4	
d. Academic rank (N = 368)							0.660
Agree	49	33.1	64	34.6	14	40.0	
Neither agree nor disagree	36	24.3	51	27.6	7	20.0	
Disagree	63	42.6	70	37.8	14	40.0	
"I am able to decide which citizenship tasks I am assigned to at work" (*N* = 366)							0.021
Agree	115	78.2	130	70.3	21	61.8	
Neither agree nor disagree	15	10.2	32	17.3	7	20.6	
Disagree	17	11.6	23	12.4	6	17.6	

*The percent was calculated after missing data was deleted pairwise.
[a]Represents p-value <0.005 between groups.

Table 5. Distribution of Time Spent on Work-Related Citizenship Tasks for Work Each Week by Demographics

	Zero Hours		*1–5 hours*		*More than 5 hours*		
	N	%*	N	%*	N	%*	p-*value*
Age							0.072
30–39 years	31	41.3	94	38.8	21	47.7	
40–49 years	40	53.4	127	52.5	15	34.1	
50–59 years	4	5.3	21	8.7	8	18.2	
Primary practice							0.060
Academic practice	7	9.5	63	26.1	16	36.4	
Hospital owned practice	30	40.5	80	33.2	9	20.4	
Governmental practice (VA, practice)	2	2.7	8	3.3	3	6.8	
Private practice (owned)	13	17.6	33	13.7	8	18.2	
Other	22	29.7	57	23.7	8	18.2	
Children							0.556
Yes	61	81.3	208	86.3	38	86.4	
No	14	18.7	33	13.7	6	13.6	
Current amount of educational debt							0.565
None	35	48.0	110	45.6	22	50.0	
Less than 50K	10	13.7	31	12.9	1	2.3	
51–100K	11	15.1	27	11.2	6	13.6	
101–150K	5	6.8	32	13.3	8	18.2	
151–200K	5	6.8	17	7.0	3	6.8	
More than 200K	7	9.6	24	10.0	4	9.1	
Current annual total compensation (include bonuses/incentives)							0.069
Less than 100K	5	7.0	4	1.7	0	0	
101–200K	11	15.5	42	18	7	16.3	
201–300K	28	39.5	81	34.8	15	34.9	
301–400K	15	21.1	51	21.9	8	18.6	
401–500K	5	7.0	33	14.2	6	13.9	
More than 500K	7	9.9	22	9.4	7	16.3	
Primary medical specialty							0.860
Anesthesiology	9	12.2	28	11.6	7	15.9	
Dermatology	3	4.0	4	1.7	1	2.3	
Emergency medicine	2	2.7	10	4.1	2	4.5	
Family medicine	8	10.8	26	10.8	5	11.4	
Internal medicine	8	10.8	27	11.2	3	6.8	
Neurology	2	2.7	3	1.2	2	4.5	
Obstetrics-gynecology	6	8.1	25	10.3	2	4.5	
Ophthalmology	2	2.7	3	1.2	2	4.5	
Pathology	0	0	5	2.1	1	2.3	
Pediatrics	5	6.8	40	16.5	5	11.4	
Physical medicine and rehabilitation	1	1.4	3	1.2	0	0	
Psychiatry	8	10.8	6	2.5	0	0	
Radiology	4	5.4	6	2.5	1	2.3	
Surgery	3	4.0	16	6.6	4	9.1	
Other	13	17.6	40	16.5	9	20.5	

*The percent was calculated after missing data was deleted pairwise.

physician group carrying a higher debt burden might show an impact of debt on their commitment to citizenship tasks. Such a difference was not seen in this survey.

This study also did not show a significant difference in compensation based on citizenship task commitment time within this group of women physicians from different specialties. However, if women are taking on a greater burden of these unfunded roles compared with men (as was the perception of 47.3% of the women in this study), this may contribute to the known pay disparity between men and women physicians. This difference persists after adjusting for confounding variables, including hours worked, specialty, rank, leadership roles, and number of publications, among other factors.[27,33–35]

Women have been found to take on more citizenship tasks than men.[1,29] Gender-based stereotypes can perpetuate this expectation, in which women are faced with a negative response if they opt out.[1] A review of 87 empirical studies found that there was evidence that women are not only expected to engage in more citizenship tasks, but also that this results in lower recognition and contributions than their male counterparts.[2] Our study found nearly 50.0% of the women physicians reported spending more time on citizenship tasks than their male colleagues, and women physicians 50 years or older reported that gender and sexual orientation are factors associated with feeling obligated to participate in citizenship tasks. It is unclear whether various perceptions of

citizenship tasks among distinct age groups are consequences of different generations, culture, or work environment. This finding begs the question of the impact of age on citizenship task perceptions, especially as it pertains to differences in gender at elevated academic rank and leadership positions.

As reported in this article, the issues leading to a tax on women are multifactorial. In addition, it is challenging to fully understand and assess these factors given that a substantial disproportion of underrepresented ethnic groups exit, impairing further analyses of substratification due to low power. Still, several authors have studied potential solutions to address this additional women tax in academic medicine. Promote strategies for multicultural mentorship, advance diversity efforts and provide career advancement, and leadership training are some of the suggested resolutions.[23] In addition, encouraging a safe environment and team-member exchange should be mitigated to decrease the gap in isolation experienced by URiM.[23,25]

Our study had several limitations. We surveyed a relatively small sample of women physicians who were largely White women and >40 years of age. Notably, men were not respondents, and we were not able to draw conclusions about their responses compared with the women. In addition, since we did not collect data on academic rank, we were not able to report its relationship with citizenship tasks, especially accounting for race, ethnicity, and age. The sampling also comprised attendees of a national leadership conference, which could lead to selection bias as it may not represent the community of women physicians as a whole.

Conclusion

This study contributes to the current literature by studying citizenship tasks as reported by women physicians. Our studies suggest that gender, race, and age may play a role in the decision of women physicians to participate in work-related citizenship tasks. Further studies to compare men and women and the role citizenship tasks play in the culture of healthcare are warranted.

Author Disclosure Statement

P.R.A. reports no disclosures related to this work. Unrelated to this work, she has received NIH funding through the IDeA-CTR. J.K.S. discloses she is an uncompensated founding member of TIMES UP Healthcare. As an academic physician, J.K.S. reports no disclosures related to this work. Unrelated, she has published books and receives royalties from book publishers, and she gives professional talks such as grand rounds and medical conference plenary lectures and receives honoraria from conference organizers. She has participated in research funded by The Arnold P. Gold Foundation (physician and patient care disparities), Binational Scientific Foundation (culinary telemedicine research), and Warshaw Institute and Massachusetts General Hospital Department of Medical Oncology (pancreatic cancer). A.R.L. reports no disclosures related to this work. Unrelated to this work, she has served on a one-time advisory board for Sanofi Genzyme on resident education and has received honoraria for invited lectures such as medical conference and grand rounds lectures. P.A. reports no disclosures related to this work. S.S. is the co-owner of Brave Enough LLC, a resource for professional women to invest in their personal well-being. She has published a book and receives royalties from a book publisher. She speaks as a grand rounds speaker and medical conferences lecturer and has received academic and society honoraria. She has received NIH funding through the NIA during 2015–2019 and the AGS.

Funding Information

No funding was received for this study.

References

1. Heilman ME, Chen JJ. Same behavior, different consequences: Reactions to men's and women's altruistic citizenship behavior. J Appl Psychol 2005;90:431.
2. Ng TW, Lam SS, Feldman DC. Organizational citizenship behavior and counterproductive work behavior: Do males and females differ? J Vocat Behav 2016;93: 11–32.
3. Chernyak-Hai L, Waismel-Manor R. Gendered help at the workplace: Implications for organizational power relations. Psychol Rep 2019;122:1087–1116.
4. Schneider KT, Radhakrishnan P. Three dilemmas for academics: gender disparities in scholarship, teaching, and service. Indus Organ Psychol 2018;11:428–433.
5. Park KO. The relationship between power type, work engagement, and organizational citizenship behaviors. Int J Environ Res Public Health 2019;16:1015.
6. Hammer DP, Bynum LA, Carter J, et al. Revisiting faculty citizenship. Am J Pharm Educ 2019;83:7378.
7. Koopman J, Lanaj K, Scott BA. Integrating the bright and dark sides of OCB: A daily investigation of the benefits and costs of helping others. Acad Manage J 2016;59:414–435.
8. Tuliao KV, Chen C, Wu T. Employees' perceived institutional importance, organizational norms, and organizational citizenship behavior: Insights from a multilevel assessment of the institutional anomie theory. J Soc Psychol 2020;160: 624–643.
9. Cameron SM, Nadler JT. Gender roles and organizational citizenship behaviors: Effects on managerial evaluations. Gend Manage 2013;8:380–399.
10. National Academies of Sciences, Engineering. Sexual harassment of women: Climate, culture, and consequences in academic sciences, engineering, and medicine. Washington, DC: National Academies Press, 2018.
11. Wingard D, Trejo J, Gudea M, Goodman S, Reznik V. Faculty equity, diversity, culture and climate change in academic medicine: A longitudinal study. J Natl Med Assoc 2019;111:46–53.
12. Coe IR, Wiley R, Bekker L. Organisational best practices towards gender equality in science and medicine. Lancet 2019;393:587–593.
13. Asgari MM, Carr PL, Bates CK. Closing the gender wage gap and achieving professional equity in medicine. JAMA 2019;321:1665–1666.
14. Dandar VM, Lautenberger DM, Garrison GE. Promising practices for understanding and addressing salary equity at US medical schools. Washington, DC: Association of American Medical Colleges, 2019.
15. Association of American Medical Colleges. Diversity in medicine: facts and figures 2019. Washington, DC: Association of American Medical Colleges, 2019.

16. Kaplan SE, Gunn CM, Kulukulualani AK, Raj A, Freund KM, Carr PL. Challenges in recruiting, retaining and promoting racially and ethnically diverse faculty. J Natl Med Assoc 2018;110:58–64.
17. Kaplan SE, Raj A, Carr PL, Terrin N, Breeze JL, Freund KM. Race/ethnicity and success in academic medicine: Findings from a longitudinal multi-institutional study. Acad Med 2018;93:616–622.
18. Spector ND, Asante PA, Marcelin JR, et al. Women in pediatrics: Progress, barriers, and opportunities for equity, diversity, and inclusion. Pediatrics 2019;5:144. [Epub ahead of print]; DOI: 10.1542/peds.2019.2149.
19. Silver JK. Understanding and addressing gender equity for women in neurology. Neurology 2019;93:538–549.
20. Lewiss RE, Silver JK, Bernstein CA, Mills AM, Overholser B, Spector ND. Is academic medicine making mid-career women physicians invisible? J Womens Health (Larchmt) 2020;29:187–192.
21. Marcelin JR, Manne-Goehler J, Silver JK. Supporting inclusion, diversity, access, and equity in the infectious disease workforce. J Infect Dis 2019;220(Suppl 2):S50–S61.
22. Shillcutt SK, Silver JK. Barriers to achieving gender equity. J Cardiothorac Vasc Anesth 2019;33:1811–1818.
23. Campbell KM, Rodriguez JE. Addressing the minority tax: Perspectives from two diversity leaders on building minority faculty success in academic medicine. Acad Med 2019;94:1854–1857.
24. Cyrus KD. Medical education and the minority tax. JAMA 2017;317:1833–1834.
25. Rodríguez JE, Campbell KM, Pololi LH. Addressing disparities in academic medicine: What of the minority tax? BMC Med Educ 2015;15:6.
26. Syed M. Why traditional metrics may not adequately represent ethnic minority psychology. Perspect Psychol Sci 2017; 12:1162–1165.
27. Ly DP, Seabury SA, Jena AB. Differences in incomes of physicians in the United States by race and sex: Observational study. BMJ 2016;353:i2923.
28. Carson TL, Aguilera A, Brown SD, et al. A seat at the table: Strategic engagement in service activities for early-career faculty from underrepresented groups in the academy. Acad Med 2019;94:1089–1093.
29. Allen TD. Rewarding good citizens: The relationship between citizenship behavior, gender, and organizational rewards 1. J Appl Soc Psychol 2006;36:120–143.
30. Malingumu W, Stouten J, Euwema M, Babyegeya E. Servant leadership, organisational citizenship behavior and creativity: The mediating role of team-member exchange. Psychol Belg 2016;56:342–356.
31. Moniz MH, Griffith KA, Jones RD, Mangurian C, Jagsi R. Perceptions of pressures to alter or misrepresent time allocation among clinician–researchers with NIH career development awards. Acad Med 2020;95:248–254.
32. Pisaniello MS, Asahina AT, Bacchi S, et al. Effect of medical student debt on mental health, academic performance and specialty choice: A systematic review. BMJ Open 2019;9:e029980.
33. Lo Sasso AT, Armstrong D, Forte G, Gerber SE. Differences in starting pay for male and female physicians persist; explanations for the gender gap remain elusive: An examination of how the gender gap in total starting pay has evolved and the extent to which preferences over work-life balance factors affect the gap. Health Aff 2020;39:256–263.
34. Jena AB, Olenski AR, Blumenthal DM. Sex differences in physician salary in US public medical schools. JAMA Intern Med 2016;176:1294–1304.
35. Jagsi R, Griffith KA, Stewart A, Sambuco D, DeCastro R, Ubel PA. Gender differences in the salaries of physician researchers. JAMA 2012;307:2410–2417.

Address correspondence to:
Priscila Rodrigues Armijo, MD
Department of Surgery
University of Nebraska Medical Center
986245 Nebraska Medical Center
Omaha, NE 68198-6245
USA

E-mail: p.rodriguesarmijo@unmc.edu