



# Unpacking the Status-Leveling Burden for Women in Male-Dominated Occupations

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## Abstract

The challenges faced by women in male-dominated occupations are often attributed to the men in, and masculine cultures of, these occupations—and sometimes to senior women in these occupations who may fail to give a “leg up” to the women coming up behind them. As such, prior research has largely focused on challenges that women experience from those of higher or equal status within the occupation and on the negative climate that surrounds women in these positions. We introduce a novel challenge, the status-leveling burden, which is the pressure put on women in male-dominated occupations from women in occupations lower in the institutional hierarchy to be their equal. Drawing on interviews with 45 surgeons, we present a model that unpacks this status-leveling burden. Our research makes novel contributions to the literatures on challenges to women in male-dominated occupations and on shared demography in cross-occupational collaboration, and it suggests new avenues for research at the intersection of gender and occupational status in the workplace.

**Keywords:** gender, hierarchy, occupations/professions, status, status-leveling, demography, cross-occupational collaboration, medicine, surgery, intergroup relations, diversity, inequality, equity, inequity

Scholars have long recognized the challenges to success and retention experienced by women working in male-dominated occupations. These challenges are often attributed to the men in, and masculine cultures of, these occupations (Bailyn, 1987; Robinson and McIlwee, 1991; Kanter, 2008; Kuehn, 2012) or sometimes to senior women in these occupations who may fail to actively support the women coming up behind them (Ellemers et al., 2004; Sheppard and

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Aquino, 2013). Thus past research has largely focused on challenges that women experience from those of higher or equal status within the occupation and on the negative climate that surrounds these women (Singh et al., 2013; Dresden et al., 2018). What has not been fully appreciated to date is the possibility of a third challenge for women moving into and occupying high-status positions in male-dominated occupations—the pressure put on them by women in occupations lower in the institutional status hierarchy to be treated as equals.<sup>1</sup> In this paper, we introduce and describe this phenomenon as “the status-leveling burden” experienced by women in male-dominated occupations.

Research to date has failed to identify the status-leveling burden because the preponderance of research on women in male-dominated occupations has focused on status challenges that emerge primarily from within the occupation.<sup>2</sup> For example, sociologists have highlighted the ways in which masculine cultures, the gender status hierarchy in society, and men’s desire to preserve their valued positions contribute to the devaluation of women in male-gendered roles and require women to assimilate into masculine occupational and organizational cultures (Berger, Cohen, and Zelditch, 1972; Bailyn, 1987; Reskin, 1993; Fletcher, 1999; Ridgeway, 2001; Cech, 2013). The most influential psychological theories have all emphasized the central role of gender stereotypes in explaining why women in male-dominated occupations must repeatedly prove themselves to men colleagues and experience the bias and discrimination associated with perceptions that they violate feminine stereotypes and/or are ill-suited for male-typed work (Eagly, Makhijani, and Klonsky, 1992; Heilman, 2001; Ridgeway, 2001; Rudman and Glick, 2001; Eagly and Karau, 2002; Heilman and Eagly, 2008; Rudman et al., 2012). In addition, senior women in male-dominated occupations often feel the need to distance themselves from other women in the occupation and have thus been accused of failing to show solidarity with them due to pressures to assimilate into a masculine culture (Ellemers et al., 2004; Sheppard and Aquino, 2013).

Despite an extensive literature on the challenges that women in male-dominated occupations face from members of their own occupation, prior research has not explored whether and how women in male-dominated occupations experience challenges from those in other closely aligned occupations lower in the institutional status hierarchy. That is, extant studies have not explored how gender status and occupational status might combine to affect women’s experiences in male-dominated occupations. This is a critical oversight as many occupations collaborate with each other to get work done (Halpern, 1992; Nancarrow and Borthwick, 2005; Ashcraft, 2007), and the occupations that collaborate with many male-dominated occupations are predominantly female (e.g., doctors–nurses, dentists–hygienists, lawyers–paralegals, top managers–administrative workers; Pritzel and Green, 1990; Wichroski, 1994; Sweet and Norman, 1995; Dahlborg, 1997). Thus these relationships are occurring more frequently as women gain greater access to

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<sup>1</sup> References to occupations “lower in the institutional hierarchy” relate not to the absolute status of an occupation but to its position in the institutional hierarchy relative to other occupations (Freeland and Hoey, 2018).

<sup>2</sup> Although gender is not a binary construct, we refer to it as such in this manuscript to be consistent with other work that has looked at barriers in the advancement of women and because the participants of this study all identified either as men or women.

traditionally male-dominated occupations. Moreover, gender is a characteristic for which we see the most inverse segregation across occupational status hierarchies, i.e., male-dominated occupations are generally considered higher status and female-dominated occupations are considered lower status (Reskin, 1993). For example, in health care, doctors are traditionally considered higher in the occupational status hierarchy than nurses (Shaw et al., 2018) due to factors such as education and training, authority relations, title and pay, licensing, and organizational and legal reporting relationships (Freeland and Hoey, 2018). Similarly, in law, lawyers enjoy higher status in the institutional hierarchy than paralegals (Lively, 2001). As this is the case, women in male-dominated occupations in cross-occupational collaboration with women in female-dominated occupations must simultaneously navigate two institutional hierarchies linked to status—gender and occupation.

Although the literature on cross-occupational collaboration—when individuals from different occupations integrate their daily work to accomplish occupational goals (Truelove and Kellogg, 2016)—has considered the benefits to such collaboration of some forms of shared demography across occupations (DiBenigno and Kellogg, 2014), it has not examined the impact of shared gender across occupations, nor has it considered the potential conflict that may arise from shared demographics structured across occupational status hierarchies. Taken together, the gender literature has been largely “occupation neutral”—failing to consider potential challenges to women in male-dominated occupations in collaboration with those in other occupations—and the cross-occupations literature has been largely “gender neutral”—not considering how shared gender affects cross-occupational collaboration. These oversights have limited the opportunity to uncover potentially new gender dynamics, as well as associated challenges and response strategies, at the intersection of gender and occupational status. Thus we address the following research question: What, if any, are the novel challenges and response strategies required of women in male-dominated occupations collaborating with women across occupational status hierarchies?

To address this question, we developed grounded theory drawing on interviews with surgeons who must collaborate with nurses in the delivery of patient care (McMurray, 2011). We present a model illustrating the status-leveling burden, which shows how women (but not men) experience status tensions with women across occupational status hierarchies. As a result of these tensions, women in the male-dominated occupation have difficulty relying on their formal authority to gain cooperation from women in the closely aligned occupation and perceive the need to engage in what we refer to as “status-leveling behaviors.” Our findings highlight that while these behaviors have positive implications for increasing cross-occupational cooperation and patient care efficiency, they come at the cost of negative performance and career implications for high-status women. Importantly, our findings show non-symmetrical gender dynamics, such that women surgeons experience the status-leveling burden with women but not men nurses. This highlights that, despite their higher occupational status in the institutional hierarchy, women in male-dominated occupations appear to experience the status-leveling burden in relationship to women in associated female-dominated occupations because of shared gender.

Typical of a grounded theory approach, the bulk of the theorizing is tied to the findings. But to orient the reader to the eventual findings, we provide a brief review of the relevant literature on challenges to women in male-dominated occupations and shared demographics in cross-occupational collaboration. Our review clarifies how and why prior research is inadequate for explaining the unique dynamics we find between women who collaborate across occupational status hierarchies.

## CHALLENGES TO WOMEN IN MALE-DOMINATED OCCUPATIONS

Occupational sex segregation—a specific form of occupational segregation based on gender (Reskin, 1993; Acker, 1998; Ashcraft, 2013)—represents a significant barrier to women's equality. This is because gender-based occupational segregation forms the basis for differential access to resources as male-typed jobs receive higher pay and are considered higher status than female-typed jobs (Treiman and Hartmann, 1981; Reskin and Roos, 1990). While women have made progress in terms of entry into traditionally male-dominated occupations, numerous studies across multiple disciplines highlight the significant challenges women in these occupations continue to experience.

Extensive sociological research has shown that because women are seen as lower status than men (Ridgeway and Berger, 1986; Berger, Ridgeway, and Zelditch, 2002), especially in the masculine culture of male-dominated occupations, women's contributions are devalued relative to men's in a binary gender framework (Bailyn, 1987; Robinson and McIlwee, 1991; Fletcher, 1999; Cardador, 2017; Cheryan and Markus, 2020). Moreover, women in male-dominated occupations are seen as violating gender status beliefs and thus prompt negative reactions from observers (Berger, Ridgeway, and Zelditch, 2002; Ridgeway, 2014). Combined with the desire of men in male-dominated occupations to preserve their valued positions and the male culture of these occupations, this contributes to resistance to the occupational integration of women (Ridgeway, 2001).

Because of their lower and "token" status by virtue of gender, women in male-dominated occupations experience high visibility, polarization, and assimilation pressure (Kanter, 2008) and often feel they need to "act like" their male colleagues in order to be successful (Bennett, Davidson, and Galeand, 1999; Powell, Bagilhole, and Dainty, 2009). "Masculine defaults"—a form of bias in which behaviors associated with male gender are more valued and rewarded especially in male-typed contexts—pose challenges for women in male-dominated occupations and require women to adapt to masculine cultural norms and values (Cheryan and Markus, 2020). These factors contribute to pressure for women to adopt masculine styles of behavior in order to be regarded, rewarded, and recognized to the same degree as men. As a result, women in male-typed occupations often feel forced to accept "majority cultural expressions" by men (Kanter, 2008), and many of them respond by adapting to the masculine culture, expressing solidarity with male colleagues (Eisenhart and Finkel, 1998; Jorgenson, 2002; Faulkner, 2007) and downplaying the effect of sexism (Cole and Singer, 1991). These forms of assimilation require women's "willingness to identify with, rather than challenge" the masculine identity of male-gendered occupations (Dryburgh, 1999: 680).

Psychologists have also documented the significant gender-based challenges to women in male-dominated occupations. Three dominant psychological theories—Heilman’s (1983) lack of fit model, Rudman and colleagues’ (2012) status incongruity hypothesis, and Eagly and Karau’s (2002) role incongruity theory—all emphasize that gender status beliefs and gender stereotypes lead people to see women as less qualified than men for male-typed roles. The perceived lack of correspondence between female stereotypic attributes and male gender-typed job requirements leads people to draw the conclusion that women are not equipped to handle these jobs and consequently produces negative expectations about their likely success, perceived fit, and capability (Heilman, 1983; Heilman, 2001; Gaucher, Friesen, and Kay, 2011). To be perceived as qualified, women must counter feminine gender stereotypes by presenting themselves as competent, confident, and assertive, i.e., agentic (Glick, Zion, and Nelson, 1988; Dodge, Gilroy, and Fenzel, 1995; Eagly and Karau, 2002). But once they do, they must also deal with prejudice and discrimination for behaving contrary to feminine stereotypes, i.e., the “double bind” (Rudman and Kilianski, 2000). Such violations also produce “backlash”: social disapproval and negative evaluation (Heilman, 2001; Rudman et al., 2012). Therefore, even when women seek to demonstrate that they have what it takes to fulfill traditionally male positions, they are likely to suffer negative reactions from colleagues.

While these challenges associated with being a woman in male-dominated occupations relate to interactions with both men and women colleagues, women in male-dominated occupations face some unique challenges in woman–woman interactions (e.g., Derks et al., 2011; Duguid, 2011; Duguid, Loyd, and Tolbert, 2012). For example, women lawyers in firms with low female representation among senior lawyers have more strained relationships with other women lawyers compared with their women counterparts in firms with higher senior female representation (Ely, 1994). The women in contexts with low female representation are less likely to perceive senior women as role models and more likely to feel competition in relationships with women peers. Other research has suggested that because of high pressure to assimilate into male cultures and behaviors, senior women in male-dominated occupations might align themselves—or be perceived as aligning themselves—with their more powerful men colleagues, thereby increasing observers’ perceptions that they are ignoring the struggles or otherwise inhibiting the advancement of other women (Ellemers et al., 2004; Garcia-Retamero and López-Zafra, 2006; Duguid, 2011; Salles and Choo, 2020). Moreover, Sheppard and Aquino (2017) described that because of scarce organizational resources for women, women in male-dominated occupations may feel the need to compete with women peers (see also Gibson and Lawrence, 2010; Duguid, Loyd, and Tolbert, 2012). Because successful women peers are viewed as a threat to other women’s own competence and prospects, labeling them as interpersonally flawed allows other women to distance themselves from these women, thereby minimizing their appropriateness for social comparison (Parks-Stamm, Heilman, and Hearn, 2008; Sheppard and Aquino, 2013).

While these studies have outlined clear gender-based challenges for women in male-dominated occupations coming from higher or equal status others within the occupation (i.e., other men and women members of their own occupation), they have largely failed to consider potential challenges to women in

male-dominated occupations in collaboration with those in other occupations. To the extent that researchers have considered how women in male-dominated occupations experience their interactions with non-occupational members, the status of the other occupation is often left unidentified. For example, we are never told the occupational status of Eagly and Karau's (2002) perceivers of women leaders or of Garcia-Retamero and López-Zafra's (2006) workers evaluating women for promotion. Moreover, many studies of gender status in the workplace rely on undergraduate evaluators of applicants for masculine jobs (Rudman and Glick, 2001), of successful women managers (Heilman and Okimoto, 2007), and of high-performing women in male-typed jobs (Heilman et al., 2004). Thus, how women in male-dominated occupations experience their collaboration with women across occupational status is not well understood because of the decidedly "occupational neutral" approach taken in prior studies of gender dynamics in the workplace.

To gain insights about the role of shared gender in collaboration across occupational status hierarchies, we turned to the literature on shared demography in cross-occupational collaboration.

## SHARED DEMOGRAPHY IN CROSS-OCCUPATIONAL COLLABORATION

Cross-occupational collaboration is an essential experience in many occupations (Abbott, 1988; O'Mahony and Bechky, 2008; DiBenigno and Kellogg, 2014). If an occupation has higher status in an institutional status hierarchy, it maintains a preferential position in hierarchically organized divisions of occupational labor and thus can shape relations with other occupational groups lower in the institutional hierarchy (Ashcraft, 2007). Typically, formal authority—i.e., the positional right to command—is granted to the dominant (i.e., higher status) occupation over other occupations lower in the institutional status hierarchy through factors such as occupational jurisdiction and credentialing (Weber, 1978). However, as Huising (2015: 264) has noted, "the enactment of professional authority is a probabilistic achievement" because it depends not only on formal authority but also on others' acknowledgment of the professional's authority as legitimate and their willingness to cooperate with instructions and orders (see also DiBenigno, 2020). This means that even when professionals have formal authority over other occupations, collaboration challenges can still occur. Challenges in cross-occupational collaboration occur because, while formal authority is given by professional status and position (Weber, 1978; Abbott, 1988), cooperation must still be cultivated and negotiated at the personal level (Wrong, 1979; Huising, 2015).

Recently, scholars have found that "cross-cutting demographics"—i.e., shared demographic characteristics across occupations—can facilitate cross-occupational interactions. In a sample of nurses and patient care technicians, DiBenigno and Kellogg (2014) found that the cross-cutting demographics of immigration status, race, and age helped smooth interactions between members of the different occupations by providing them with an alternative, non-occupational "dyadic toolkit" comprising shared beliefs, meanings, and knowledge. This dyadic toolkit helped to relax occupational members' attachment to the types of occupational status, identity, and expertise differences that can make cross-occupational collaboration challenging (O'Mahony and Bechky, 2008).

This prior research suggests several factors relevant to the focus of our study. First, prior studies have not explicitly focused on how shared gender influences cross-occupational collaboration. To the extent that inferences can be drawn about shared gender from DiBenigno and Kellogg's (2014) nurses and patient care technicians (two female-dominated occupations), it appears that shared gender is insufficient to smooth collaboration, since it was other shared demographics that facilitated interactions across the two same-gender occupations. Thus it is unclear what role, if any, gender played in status tensions between occupational members. Second, one pre-condition for the "dyadic toolkit" is that the devalued demographic characteristic be equally distributed across collaborating occupations (i.e., uncorrelated with occupational status; DiBenigno and Kellogg, 2014). This pre-condition is not met in cross-occupational collaboration between women in male- and female-dominated occupations since gender is unequally distributed across the two collaborating occupations; therefore, shared gender should function differently from other shared demographic characteristics in these gender-imbalanced occupational collaborations. Exactly how shared gender operates to influence the dynamics between women across occupational status hierarchies is not known.

## METHOD

### Research Context

There is perhaps no more salient example of a cross-occupational collaboration than that between doctors and nurses. These two occupations work highly interdependently, practicing alongside one another to achieve the common goal of high-quality patient care (Sinclair, 1988). As the focal cross-occupational collaboration for this study is between women surgeons and nurses, it is appropriate to provide background on the status and gender dynamics inherent to the doctor–nurse relationship in particular and the surgeon–nurse relationship specifically.

Consistent with the gendering of the two occupations, as well as the gender status hierarchy in society and medicine, the doctor–nurse relationship has historically been seen as one characterized by "dominance and deference," with physicians being in the dominant position and nurses expected to be deferential to physicians' orders (Sweet and Norman, 1995). Historical analyses have even equated the doctor–nurse relationship to a patriarchy with parallels to husband and wife roles in a family: the nurse takes care of the physical and emotional environment, while the doctor does the "important work" of healing patients (Dingwall and McIntosh, 1978; Wallace and Abbott, 1990). In this historical view, physician autonomy (e.g., diagnosis and treatment) requires support work (e.g., carrying out doctors' orders) performed by nurses who are seen as invaluable but who nevertheless take orders from physicians (Kalisch and Kalisch, 1977; Wallace and Abbott, 1990). Thus the doctor–nurse relationship has evolved in the context of an occupational status hierarchy, as well as a sexual division of labor and gender-role stereotyping; medicine generally, and surgery specifically, is equated with male authority while nursing is equated with female deference (Sweet and Norman, 1995).

Today, health care organizations emphasize doctor–nurse collegial collaboration over the outdated view of nurses serving doctors, and doctors and nurses

both recognize that effective doctor–nurse collaboration is essential to the provision of quality care (e.g., Schneider, 2012; House and Havens, 2017). Despite these developments, however, contemporary collaboration patterns are still deeply rooted in older professional identities that are not easily changed (Gittell, Godfrey, and Thistlethwaite, 2013). Accordingly, most doctors and medical institutions generally consider doctors to be the primary decision makers and believe that they are ultimately legally responsible for patient care (Lancaster et al., 2015; Szafran et al., 2018). This view is reinforced by physician training and the fact that doctors have legal responsibility for medical care decisions (Center for Health Ethics, 2020). In short, though health care organizations value inter-occupational collaboration, doctors are still predominantly seen, and see themselves, as the leaders and decision makers within the medical hierarchy.

Investigating women surgeons' cross-occupational collaboration with nurses provides an excellent opportunity to explore gender and occupational status dynamics in cross-occupational collaboration because it represents an "extreme case," even in medicine, of collaboration between women in male-dominated and female-dominated occupations. This examination thus increases the potential to observe the phenomenon of interest: whether and how women in male-dominated occupations face unique challenges and use unique response strategies in collaboration with women in female-dominated occupations (Eisenhardt, 1989; Dossett et al., 2020). Surgery has been considered the "last bastion of male-only medicine," with only about one-fifth of surgeons being women (de Costa et al., 2018; Haskins, 2019). In contrast, nursing remains not only heavily woman-dominated but one of the most archetypically female occupations (Gjerberg and Kjølørød, 2001), with 91 percent of nurses being women (National Council of State Boards of Nursing, 2020). Moreover, the behaviors often expected of surgeons (e.g., taking charge and giving orders) conflict with society's behavioral expectations for women, while the behaviors expected of nurses (e.g., being supportive, nurturing, and team-oriented) are consistent with societal expectations for women (Cheryan and Markus, 2020). Taken together, these factors make the women surgeon–nurse collaboration an ideal context for our study.

## Data Collection

These data were collected as part of a larger study on the experience of women surgeons in the workplace. The sample comprised a total of 45 surgeons: 29 women and 16 men. We oversampled women because of our interest in the experiences of women surgeons interacting with nurses; however, we sampled both women and men to gain insights into whether the woman nurse–woman surgeon dynamic was different than the woman nurse–man surgeon dynamic. This allowed us to reduce the possibility that any dynamics observed were simply due to cross-occupational dynamics independent of gender. Participants were solicited through posts on social media sites and through snowball sampling (Robinson, 2014); no restrictions were placed on subspecialty or medical organization type. Participating surgeons represented a total of 40 unique organizations and 13 surgical subspecialties (e.g., oncology, endocrine, general, bariatric, cardiac, trauma). The average post-fellowship professional tenure of surgeons was 3.0 years for women and



**Table 1. Informant Characteristics**

<b>Professional Tenure (in Years)</b>	<b>Surgical Sub-Specialty</b>
1.5	Bariatric
1	Bariatric
.5	Bariatric
7	Bariatric
1.5	Cardiac
1.5	Cardio-Thoracic
1	Colo-Rectal
15	Colo-Rectal
1	Colo-rectal
4	Endocrine
2	Endocrine
1.5	Endocrine
3	Endocrine
3.5	Endocrine
1.5	Endocrine
3	ENT
1	ENT
1	Gastro-Intestinal
2.5	Gastro-Intestinal
No report	General
5	General
1.5	General
8	General
10	General
3	General
1.5	General
4	General
3	Minimally Invasive
1.5	Oncology
4	Oncology
6	Oncology
5	Oncology
1	Oncology
8	Oncology
5	Oncology
8	Pediatric
3	Plastic/Burn
10	Trauma
2	Trauma
1	Trauma
2.5	Trauma
2.5	Trauma
5	Trauma
2.5	Trauma
1	Vascular

4.6 years for men (3.5 years for the sample). See Table 1 for informant characteristics. We purposefully sampled early career surgeons because surgeons at this career stage are forming/building relationships with nurses and navigating how to collaborate with them and because past work shows that age is negatively associated with reporting everyday discrimination because people acclimate to mistreatment (Lewis et al., 2012). Sampling low-tenure

surgeons represents another form of an “extreme case” (Eisenhardt, 1989) in which tensions with nurses are most observable and career-challenging because surgeons are still figuring out how to navigate them.

We conducted a series of semi-structured telephone interviews (Marshall and Rossman, 1989) with all 45 participating surgeons. Interviews lasted one hour on average and were recorded and transcribed verbatim. We collected the interview data in four rounds, iterating between data collection and analysis (Strauss and Corbin, 1998). Between each round, we revised the interview protocol (see the Online Appendix, <http://journals.sagepub.com/doi/suppl/10.1177/00018392211038505>) for subsequent data collection rounds to further explore emerging critical themes. After completing the second round of data collection, we reanalyzed the full data set and developed our theoretical model based on the findings. In the third and fourth rounds of data collection, we conducted informant checks (Lincoln and Guba, 1985), asking informants whether our model was consistent with their experiences and observations. This approach served to verify the accuracy of the interpretations associated with our conceptual framework. To more easily make gendered comparisons, we included interviews with women and men in all but the last round of data collection. Data were collected over a 24-month period; we completed 15 interviews in round 1, 15 in round 2, 10 in round 3, and 5 in round 4. Following recommendations from reviewers, we conducted the round 4 interviews only with men surgeons to provide additional verification that their experiences with nurses were different from those of women surgeons. We reached “theoretical saturation” (Glaser and Strauss, 1967: 65) after the third round of data collection, such that our conceptual categories had been fully developed for us to answer our core questions sufficiently. We stopped data collection when additional sampling and analysis not only affirmed our emerging theoretical model but also failed to produce further development or new themes.

In line with much inductive research, we asked participants a common set of questions (see the Online Appendix), although the interview protocol was slightly modified between each round of data collection to include additional questioning about emerging themes (Spradley, 1979). For example, all informants were asked to describe their work and how long they had been doing it, how nurses helped them and hindered them in their work, the strategies they used to manage their interactions with nurses, and whether and how nurses interacted with men and women surgeons differently. Once we identified a set of themes—e.g., that many women surgeons seemed to perform work that was more typical of nurses in order to smooth the relationship—we modified the questions to delve deeper into the theme. A common set of questions facilitated comparisons across informants, and changes in the protocol over time allowed us to home in on certain dynamics that were emerging in our data.

## Data Analysis

We analyzed the interview data using a grounded theory approach. Consistent with this method, the data were analyzed in an iterative pattern, linking the data to the emerging theoretical framework and vice versa (Strauss and Corbin, 1998). The analysis comprised three main steps. The first step began with

open coding—i.e., reviewing the transcripts and identifying descriptive codes tied directly to informants' words. Through open coding the data were broken into discrete incidents, ideas, events, or acts and given a name or code. Examples included "cleaning up after procedures," "feeling the need to know the names of nurses' kids," and "being written up because of nurse interactions." Open coding, as well as the subsequent forms of coding, took place within and across the four rounds of data collection.

We listed and reviewed all open codes for patterns and linkages between them. Through this process we identified connections between open codes and sorted the codes into larger subcategories. For example, open codes such as "nurses calling women surgeons by their first name" and "nurses being slower to carry out a woman surgeon's order" were grouped together into the subcategory of "surgeons' perceptions of nurses' differential shows of respect." This process of data reduction allowed us to reduce the hundreds of open codes into fewer first-order concepts.

In the second step of coding, we further bundled the subcategories into more abstract groupings or second-order themes through axial coding (Locke, 2001). For example, the subcategories "nurses writing up or reporting women surgeons" and "nurses contacting women surgeons more during call" were bundled to form the theme of "undermining work." Themes such as "performative niceness" and "time demands" were also formed this way.

The third step involved exploring the relationships between the abstracted themes to form aggregate dimensions and an associated theoretical framework that best summarized how the data fit together, as well as how they fit with existing theory and research. Here we constructed aggregate dimensions not described by previous literature, providing corresponding definitions and descriptions of relationships between dimensions. Having delineated the theory, we reexamined the data to ensure fit with our theoretical understanding (Locke, 2001).

We refer to these analytic processes as "steps," though the process was not strictly sequential. Instead, it was a dynamic, iterative analysis that involved traveling back and forth between data and theory (Strauss and Corbin, 1998). Table 2 summarizes the data structure resulting from the analytic process, depicting the theoretical categories, as well as the associated labels and descriptions.

The authors met frequently during the data collection and analysis phases to discuss codes and emerging themes. The first author conducted all interviews and debriefed the interviews with the second and third authors. All authors read and coded the first round of interviews and discussed emerging themes; the first author read and coded the transcripts from rounds 2–4. Following round 1 of data collection, the first author created a list of all codes and arranged them in themes to record their relationships. The second and third authors debriefed a subset of the interviews with the first author, read the code lists, and coded the second round of interviews. Thus the second and third authors provided another source of analysis and verified the first author's data interpretation. The third author's experience as a practicing woman surgeon provided an additional check on the accuracy of our theoretical framework.

Table 2. Overview of Data Structure

Aggregate Dimensions	Second-Order Themes	First-Order Concepts
Nonsymmetrical gendered expectations for status equivalence	Gendered expectations for authoritativeness	References to surgeons' perceptions that nurses did not tolerate women surgeons exhibiting the type of authoritative behavior common to the surgeon role (e.g., giving orders to nurses, using directive communication styles).
	Gendered shows of respect	References to surgeons' perceptions that nurses did not show the type of respect toward women surgeons expected in the medical hierarchy (e.g., calling them doctor, pulling their gloves, providing unsolicited standard assistance).
Risks of inter-occupational alienation	Undermining organizational reputation	References to surgeons' perceptions that nurses were in a position to undermine surgeons' reputations in the eyes of other health care providers and patients in the hospital.
	Undermining work	References to surgeons' perceptions that nurses were in a position to undermine surgeons' ability to care for patients by not helping them or being slow to follow requests.
Status-leveling behaviors	<b>Relaxing task boundaries</b>	
	Task helping	References to women surgeons engaging in tasks that were generally in the nurse role domain, such as cleaning up after a procedure, pulling their own gloves, and helping the nurses with their tasks.
	Excessive accessibility	References to women surgeons making themselves excessively available to nurses for questions and showing a willingness to learn from nurses.
	<b>Relaxing relational boundaries</b>	
Implications of performing status-leveling behaviors	Strategic befriending	References to women surgeons engaging in various types of relationship-building behaviors to develop friendly and close relationships with nurses, often because they felt they needed to in order to avoid penalties from nurses.
	Performative niceness	References to women surgeons taking a "killing them with kindness" approach to nurses to avoid negative consequences.
	<b>Positive: Increased professional effectiveness</b>	
	Cooperation	References to how performing nurses' tasks, being excessively accessible, befriending nurses, and performative niceness behaviors helped increase the likelihood of nurse cooperation.
	Work efficiency	References to how performing nurses' tasks, being excessively accessible, befriending nurses, and performative niceness behaviors helped translate to better patient care efficiency.
	<b>Negative: Increased work demands</b>	
	Time demands	References to how performing nurses' tasks, being excessively accessible, befriending nurses, and performative niceness behaviors took extra time.
	Emotional demands	References to how performing nurses' tasks, being excessively accessible, befriending nurses, and performative niceness behaviors were emotionally and cognitively effortful (exhausting, difficult to sustain, draining)

(continued)

Table 2. (continued)

Aggregate Dimensions	Second-Order Themes	First-Order Concepts
Broader implications	<b>Positive</b> Work quality	References to how performing typical nursing work, being excessively accessible, befriending nurses, and performative niceness behaviors might lead to women surgeons having better patient care outcomes.
	<b>Negative</b> Risk of attrition Individual productivity	References to how the greater time and emotional demands associated with performing nurses' tasks, being excessively accessible, befriending nurses, and performative niceness behaviors were linked to risk of attrition and potentially to gender differences in productivity.

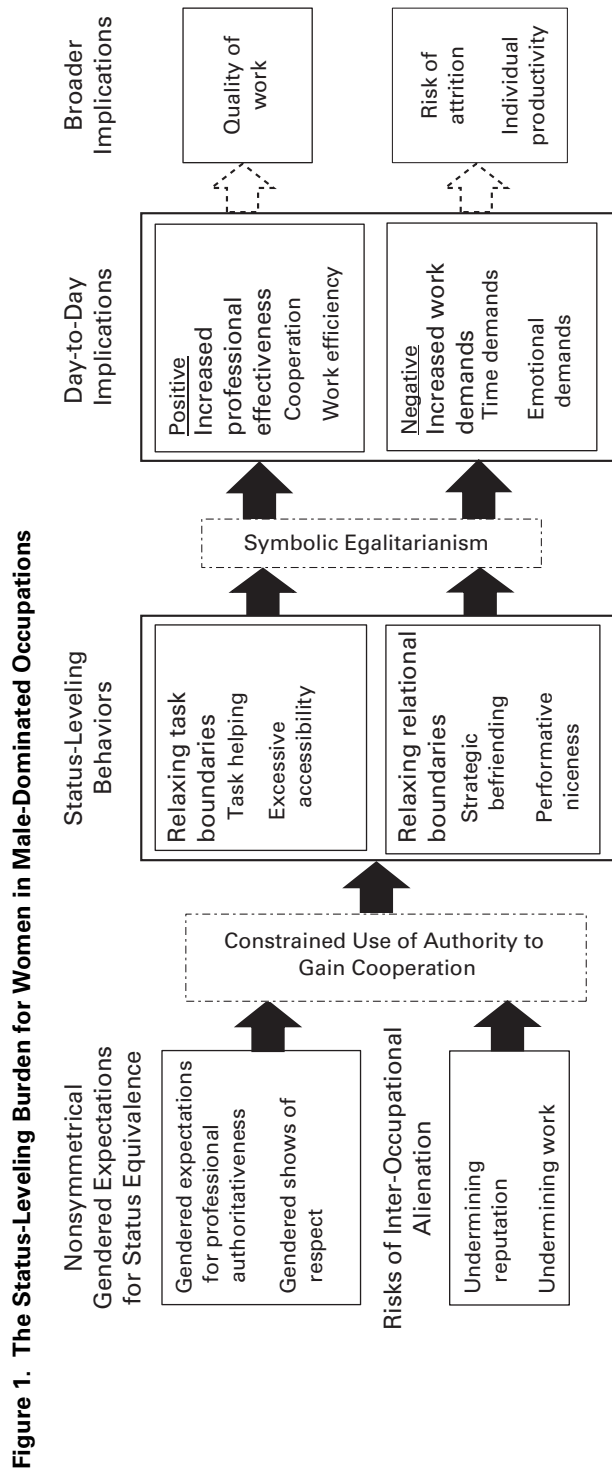
FINDINGS

Our data revealed reliable themes related to dynamics between women surgeons and nurses and their implications.<sup>3</sup> First, our findings suggest that surgeons perceived that nurses had gendered expectations for greater status equivalence between themselves and women (but not men) surgeons. The data also highlight that surgeons were aware of considerable risks associated with alienating nurses, noting that if nurses “didn’t like you” they could undermine your reputation and your work. Taken together, these dynamics meant that many women surgeons felt they had to navigate the relationship with nurses carefully. We found that rather than relying on their formal authority as surgeons to gain cooperation from nurses, women surgeons engaged in forms of what we refer to as status-leveling behaviors to ease status tensions. These behaviors had both positive and negative implications for women surgeons’ day-to-day work. Women surgeons noted that these behaviors could help them enhance work efficiency because of greater cooperation, but these benefits came at the expense of increased work demands for women surgeons because status-leveling behaviors were time consuming and emotionally effortful. Both sets of implications had potentially broader performance and career consequences. Figure 1 illustrates and serves as an orienting structure for these findings.

Nonsymmetrical Gendered Expectations for Status Equivalence

As noted previously, medical institutions are strongly hierarchical, as is the relationship between doctors and nurses. Nurses are invaluable team members, and the care they provide is directed in many ways by physicians who have legal decision-making authority in the medical hierarchy. Several participants described their perception that nurses seemed to view the medical hierarchy as less rigidly applied to women surgeons and that this was a source of tension

<sup>3</sup> Note that because women dominate the nursing profession, we assumed that all informant references to “nurses” refer to women nurses unless otherwise specified by informants. We checked this by probing for whether these dynamics also occurred in women surgeon–men nurse interactions.



between the parties. One woman surgeon summarized this succinctly: "They [the nurses] feel because you're a woman, we're all on the same level. . . . There's this whole social dynamic that women don't want to take orders from other women" (W13).<sup>4</sup> Another woman surgeon explained,

I think that women are not used to taking directions from other women [surgeons], and they're not used to giving direction to other women, you know? And so it creates a rub between attendings and nurses. . . . I think if a man sort of steps into that and has to tell an older nurse what to do, it's that role of being authoritative, of being a man telling a woman what to do, is something that we're conditioned to be very comfortable with. (W36)

Surgeons noted that this dynamic was gender nonsymmetrical (Tsui, Egan, and O'Reilly, 1992) in that it seemed unique to the woman surgeon–woman nurse relationship, such that men surgeons don't encounter this dynamic with women nurses, and neither men nor women surgeons encounter similar dynamics with men nurses. As two men surgeons in our sample described,

I see it more with female nurses than with male nurses. A male nurse will be willing to take orders from anyone as long as it's a reasonable order, whereas with female nurses, that perception and that bias seems to be more prevalent. . . . I think when you see someone that's maybe similar to you or of your gender in a leadership position or a more powerful position or more advanced position, I wonder if that is somehow playing a role, that this is someone that I am probably just as smart as or capable as, and maybe that there's some component that they can partially identify with that person. . . . I've never particularly encountered that with a male nurse, but, for whatever reason, the female nurse–female surgeon relationship seems to be more problematic. (M30)

I always felt like I was being treated with more deference and respect by the nursing staff. . . . I do feel like whenever there's a power imbalance that amongst women, there can sometimes be the sort of conflict and for whatever reason, women tend to seem to be comfortable with that power difference when it's a man versus a woman. (M42)

The greater expectations for status equivalence were reflected in surgeons' perceptions that the historical physician dominance–nurse adherence relationship, which has faded somewhat, was even less applicable to women surgeons and nurses. In particular, participants noted perceptions that women surgeons were expected to behave less authoritatively than men surgeons and that nurses showed less respect for women surgeons than men surgeons. The next two sections describe these themes, and Table 3 shares additional illustrations.

**Gendered expectations for authoritativeness.** Surgeons described how nurses did not tolerate women surgeons exhibiting the type of authoritative behavior that was considered common to the surgeon role, e.g., using directive communication styles or being the "captain of the ship." As one women surgeon stated, "Hell hath no fury" like a nurse who thinks she has been talked down to (W03). Though the surgeon role often requires directive behavior and

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<sup>4</sup> W refers to a woman informant, and M refers to a man informant.

**Table 3. Nonsymmetrical Gendered Expectations for Status Equivalence: Additional Illustrations**

Theme	Illustration
Gendered expectations for authoritativeness	<p>“Definitely using an authoritative mode did not work for me the way it would [for my men colleagues]. And I don’t think my co-residents were viewing their actions or their demeanor with the nurses as a strategy to get what they needed for their patients. I don’t think they came to work saying, ‘Okay well I need to act powerful and authoritative.’ I think it was just kind of the way they were, and it worked for them, and the nurses were okay with it, that’s what they were used to (<i>laughs</i>). So they probably didn’t think about it the way I did because things worked a little differently.” (W28)</p> <p>“There was no situation in their minds in which I was ever going to be in a position of power over them.” (W04)</p> <p>“With a male provider and female nurses, I think people seem to feel that there’s a little bit more of a template for that kind of interaction in larger society, but I have noticed that I think sometimes if it’s a female surgeon there’s a little bit more of a struggle. . . . For example, a female colleague of mine in particular had come through the intensive care unit and asked for one thing, or said to do one thing, and then I had separately come to the intensive care unit as a male provider and asked to do one thing, that my request would be heeded without question, and that the female provider in particular felt like if she had asked the same thing that somebody would have said, ‘Well are you sure you really wanna do that?’” (M16)</p>
Gendered shows of respect	<p>“I do find that there are a few things that I got pushback on, like requests for objects to come in the room, or items that I would need. There would be a lot of ‘Well, we never use that here.’ . . . So it’s just a good deal of pushback. . . . If men ask for something, there’s like an urgency to it, like, ‘Yes, we’ll get this done for you.’ Whereas I’ve found that with us it’s more like . . . ‘Okay, I’ll get it, but I may take a little bit longer,’ or ‘I may or may not get it,’ or ‘You may get it delayed.’ . . . It’s really hard to justify that kind of difference.” (W21)</p> <p>“There’s definitely a different perception, there’s different obstacles there if you are a woman . . . the men are, their opinion is maybe respected more quickly. Maybe less challenged.” (W11)</p> <p>“I’ve been told from some of my female residents that they’ve gotten pushback by the nurses on the floor over orders or plans, and they’ve gotten into arguments with the nurses, and I think it tends to be a little more smooth with the men, the male surgeons and the female nurses. I don’t see that sort of pushback being an issue. I don’t see as much of an issue either with male physicians and male nurses. At least here, all the friction has really been female surgeons, female nurses.” (M32)</p>

sometimes speaking tersely to get a point across quickly in a tense situation, women surgeons (but not men surgeons) had to be careful about being perceived as making demands on nurses. For example,

You take these very high-stress environments, trauma, somebody comes in off of an ambulance, and they’re dying in front of you, and you have to be very authoritative, and you have to know everything that’s happening . . . it’s also stressful, so it lends itself to like raising your voice or saying “Hey, I really need this now” or, if something isn’t happening as fast as you want, taking over. And that can be very jarring. . . . [With women surgeons] there’s a tendency to not be as authoritative as you might want to be, because you don’t wanna torch the relationship. (W36)



I have a specific colleague that we call a "diva," a male surgeon who has very specific demands, and they all hate it, but they all do it [what he wants]. I guarantee you if I did that, not only would it be hated but it would not get done, either. (W29)

Informants also noted that if women surgeons tried to "act authoritative" with nurses, there would be severe consequences. One informant even compared it to a death sentence:

If I tried to act authoritative or pull rank, as I was the MD and they were the nurse, then it would be writing my death sentence, that I would forever have difficulty working with that nurse. . . . Even though there were times when I wanted to assert my authority . . . you may win that battle, but you certainly won't win the war that way. (W28)

**Gendered shows of respect.** Our data highlight that women surgeons also perceived that nurses routinely displayed less respect toward women than men surgeons (Zelev and Phillips, 2003). Reduced displays of respect took many forms. Nurses often referred to women surgeons by their first names instead of the title "doctor":

I've noticed more often than not [nurses] calling them [women surgeons] by their first name instead of "doctor" as a way to kind of bring them back down. So say "Oh sorry [first name]" instead of "Doctor [surname]" or something. (M25)

I can remember being a female resident, and the nurses calling me by my first name and then addressing one of my colleagues within my class as Doctor and his last name. . . . Like "Why would you not address me as doctor if you're gonna address my male counterpart as doctor?" (W18)

Women surgeons also told us nurses were less likely to provide them with the type of assistance that was provided to men surgeons:

I think that the level of respect given to the male residents versus the female residents is very different. A male resident walks in and says, "Do this," and they say, "Okay" or "Can I go get you stuff?" or "How can I help?" And I would come to the floor with the same request, and they would say, "The supply closet is that way." (W19)

Women surgeons noted that nurses would perceive them as "putting on airs" if they expected nurses to perform tasks for them, even if they performed those tasks for men surgeons without question:

My friend [a fellow woman surgeon] came in and we were talking. Before she went to go scrub, she turns around and asks if they [the nurses] have her gloves. She didn't offer to get them. She said "So you have them?" And she [the nurse] paused and rolled her eyes and said "Yeah." She [the woman surgeon] got them and walked out the room. And I was still in the room and she [the nurse] said "How dare she!" I've been in that room with that same tech when other male residents wouldn't even stop and ask because the assumption is that you have my gloves . . . but the women were supposed to at least offer to show that you aren't putting on airs. . . . Not doing that performance was marked as a problem, and I was very aware of that. (W04)

Men surgeons echoed that nurses were slower to assist women surgeons with requests and that when women surgeons asked for things they were more likely than men surgeons to get a negative response from nurses:

As a male surgeon, it's extremely easy for me to interact pretty readily with nurses. . . . They're kind of slow to assist or slow to help female surgeons compared to me. I think there's a lot of sort of negative body language, a lot of eye rolling. So there's a lot of silent sort of signals that are being sent, a lot of heavy sighs, things like that. (M42)

Thus our findings showed that surgeons perceived nurses as failing to grant women surgeons the authority and respect associated with their position in the medical hierarchy and that this was because of expectations for status equivalence informed by their shared status as women. Our data highlight that, in the context of these dynamics, women surgeons were also very aware of the importance of their relationship with nurses and the risks of alienating them by violating what they perceived to be nurses' gendered expectations.

### Risks of Inter-Occupational Alienation

In a context in which tensions between women surgeons and nurses were recognized, women surgeons were also very aware of the need to stay on nurses' good side and the risks of alienating nurses. There seemed to be two main risks: having their reputation in the hospital undermined and having their work undermined. See Table 4 for additional illustrations of these themes.

**Undermining organizational reputation.** Women surgeons explained how nurses who did not like them would undermine their reputation in the hospital by talking negatively about them to residents, fellows (trainees who have completed residency), other attending physicians, and other nurses. As one surgeon said, "They can speak ill of you to their colleagues. I've seen them do it about residents I work with, and it's probably happened to me too" (W28). Another echoed this theme:

My partner, his approach is to yell at everybody. If it's not right, he'll yell at everybody, but no one complains. No one, not one nurse will say, "Oh, ya know, I can't work with him because he's yelling at me." But the moment I express frustration then it's like, "Oh, she's obnoxious. She's the worst person ever." (W39)

Moreover, if women surgeons got labeled as "bitchy" or "high maintenance" it undermined their reputation at their institution:

I got sort of pigeonholed as being bitchy, right from the beginning. . . . That stuff showed up in all of my evaluations, and I am a strong personality, I mean I picked trauma surgery for a reason. I don't immediately come off as being very warm, which is maybe part of the reason I don't have the friendly relationship with them [the nurses]. . . . Once you have tanked the relationship with nursing, you're done for the rest of the time that you work in that institution. You cannot change people's mind about you, especially if it's something that they've gossiped about together. So, once I had a reputation for being bitchy, I was never able to overcome that. (W36)

**Table 4. Risks of Inter-Occupational Alienation: Additional Illustrations**

Undermining organizational reputation	<p>"I would call this a sort of undermining. My burn fellow who started over the summer, she said to me, she's like, 'Dr. [X] I can't believe it, they were bad mouthing you to me.' And I told my fellow, 'Do not listen. . . . Don't take part in any of that. Whatever is between me and the nurses is between me and the nurses. Don't let what they tell you affect your relationship with me.' I mean, that's a form of undermining. I never even told my fellow what my relationship with my nurse is." (W10)</p> <p>"Your reputation is set early. And it's persistent. The reputation you get your second month in internship follows you through 'til you're done. I wonder if some of those conflicts or disagreements early on [between women surgeons and nurses] then get propagated on, and people, they're coming into that same situation with a more challenged reputation." (M15)</p> <p>"There's never a reason that someone needs to be called at two o'clock in the morning for someone who needs a stool softener . . . you notice that those, if you're someone that the nurses don't like, you get those calls a lot. [If they like you] They'll go out of their way to make sure that you look good in front of attendings if you're presenting something." (M31)</p> <p>"A female nurse in the OR does not like me asking continuously over and over again for an instrument, as they would do it from a man. They might be like 'Oh, that guy's a dick' and then let it go. But for me I feel like it's very targeted, like 'She is a bitch.' You know? 'Have you worked with her?' Then it's like the lynch-mob mentality in the OR." (W13)</p>
Undermining work	<p>"You would be called all throughout the night for stupid things, Tylenol orders, diet changes in the middle of the night, things, things that were just ridiculous and shouldn't warrant a phone call. They would actively torture that person because the relationship was strained. . . . They can make you miserable. So, it always benefits the physician to have a good working relationship with the nurses, because if they don't, the nurses will exert their authority, and they have a lot more authority than (<i>laughing</i>), than the physician thinks he or she does. So it's entirely possible that they could turn a fairly reasonable call night into just this hellish, no-sleep, annoying experience." (M32)</p> <p>"The nurses, they have an opportunity to penalize you, because they know when you're on call, and you're trying to sleep in the middle of the night they call you for like stupid stuff." (W36)</p> <p>"It just has not been an easy environment. I don't feel that they respect me even though I try to work with them. And there are times where my orders have been changed with no regard to letting me know that they disagree. They just changed the plans. So that already creates a fractured working environment." (W10)</p>

**Undermining work.** Many informants summarized the myriad ways that nurses could undermine your work if you got on their bad side. For example,

The nurses have a lot of power. We have different kinds of power, the MDs and the nurses . . . and nurses, if they don't get along with you, or they don't respect you, they have ways of making our jobs harder. They can page you at three in the morning with a really trivial question about a patient, or in passive aggressive ways, they can not do the order the way you asked them to. (W28)

The female residents talked to one another about how we kind of prepared ourselves that you had to make sure that you got on the good side of the nurses in the ICU because otherwise they would make your life a living hell, for lack of a better term. Like paging you for small things or just always interrupting, undercutting you on rounds, questioning your decision making, not following through with things you

asked for. So, I had this very conscious effort to go in and really try to be nice and act in ways that I think men don't even have to think about. (W23)

Some informants even described the ways in which poor relationships with nurses could undermine patient care. To illustrate, "If you're not having a team that is working for you, with you, that is going to compromise your ability to give the best care to that patient" (W12).

In this context, women surgeons seemed to be aware that relying on their position in the medical hierarchy to gain cooperation from nurses was unproductive and that they needed to look for other strategies (see Figure 1). As the next set of findings highlights, women surgeons appeared to engage in a number of strategic behaviors to ease status tensions between them and the nurses to gain cooperation from nurses.

### Status-Leveling Behaviors

Women surgeons engaged in two main forms of status-leveling behaviors with nurses: relaxing task boundaries and relaxing relational boundaries. We refer to these as status-leveling behaviors because they relaxed the hierarchical relationship historically typical of cross-occupational dynamics between physicians and nurses (Cassell, 1997).

**Relaxing task boundaries.** The first set of status-leveling behaviors—relaxing task boundaries between women surgeons and women nurses—refers to women surgeons' reports of engaging in behaviors that blurred task boundaries between the two occupations. These behaviors took two forms: *task helping*, or performing tasks that were part of the nurses' role domain rather than "hiving off" (Hughes, 1958; Huising, 2015) these tasks to nurses, and *excessive accessibility*, which meant making themselves exceedingly available and bending over backwards to show openness to learning from nurses. See Table 5 for additional illustrations.

*Task helping.* Many women surgeons reported performing behaviors consistent with tasks that were in the nurse role domain, such as cleaning up after a procedure or pulling their own gloves. To illustrate,

I do a lot of quote-unquote nursing-based tasks. If I'm at the bedside, I'll turn off someone's IV fluid if they don't need them anymore, I'll remove their catheter, I'll remove their nasogastric tube, I'll remove their drain, a lot of things that other colleagues would just walk out of the room and put an order for the nurse to do. (W19)

When asked why they performed these tasks, many women surgeons shared that they felt they needed to do these extra tasks to maintain good relations with nurses. In turn, women surgeons hoped that when they needed help in the future, the nurses would be more likely to provide it:

In terms of general day-to-day tasks that are straightforward, I don't think my male colleagues do as much of the housekeeping stuff that I would be doing in clinic. Stuff that they would delegate to the nurse to take care of in terms of complications with patients, or things like that, I end up taking care of, so that keeps my relationships

**Table 5. Status-Leveling Behavior: Additional Illustrations**

Theme	Illustration
<b>Relaxing Task Boundaries</b>	
Task helping	<p>"One of my chief residents who's going into vascular surgery, she's a female, and approached me like, 'I'm not sure how to deal with this. There's a female nurse that treats the women, female residents, totally differently than the male, is expecting us to help do all the moving' . . . and she [the resident] just kinda went above and out of her way to say, 'I'm helping, we're the same team.' . . . That's just one of those, it's probably an extra thing that as a female surgeon you probably have to do more than a male surgeon.'" (W33)</p> <p>"I became really cognizant if I did a procedure on a patient, if I left a messy patient bed when I was done, I would get talked about or they would say something to me about the mess I made, and I never got the sense that my male colleagues were treated in that way. If someone had to clean up after them, it wasn't as big a deal.'" (W28)</p> <p>"I can remember literally a nurse telling me, 'You need to help us clean this room if you want to get in here faster.' I think, you know, I felt, 'I'm sorry . . . am I all of a sudden housekeeping in addition to having to manage the 50 patients that I have up on the floor?'" (W18)</p> <p>"There was a situation in the operating room where the surgery was finished, and she [the surgeon] went ahead and broke scrub and went to go write her note and got written up for not staying and helping undrape the patient . . . whereas that would never be necessarily an expectation from some of her male colleagues. It's variable depending on where you are, but I think it certainly can be more obviously for female surgeons than for male surgeons.'" (W03)</p>
Excessive accessibility	<p>"I spend a little bit more time wanting to foster those relationships, and so that leads me to be a little bit more careful sometimes . . . asking their opinion and if they have a concern with the management plans I'm suggesting and that kind of stuff. I'm definitely more open to group feedback than perhaps some of my male colleagues. . . . I know that the nurses generally like it when I'm on service because I am around so much. . . . I just increase my visibility, and I'm just always present.'" (W34)</p> <p>"I'm accessible. I'm certainly more hands on than, you know . . . my male colleagues would be. I think this is a common phenomenon in medicine where we [women] do more and are more friendly and acting in a more sort of collegial way rather than expecting people to do stuff for you.'" (W09)</p> <p>"I would discuss the plans and issues and questions. I would always end it with the nurse. 'Do you have any questions or concerns that you would like to add to what was talked about here?' . . . Everyone has equal footing to discuss and call each other out on this issue.'" (W10)</p>
<b>Relaxing Relational Boundaries</b>	
Strategic befriending	<p>"I tried really hard to make friends, and I definitely think that's something that the males don't have to do. I tried to gain their trust right off the bat, and you sorta have to walk onto the floor like, 'Hi, how are you? I'm [first name]. I have a uterus too. Let's talk.' And then you have to get on to business.'" (W17)</p> <p>"When I was an intern one of the senior residents ahead of me told me that you have to make friends with the nurses. I will say that is one of the things about residency that I think I carry on now. I don't have that issue with the nursing staff because I put a lot of work into my relationship with the nursing staff so that I won't have that issue. Because I know that some of my friends do, and I saw in residency other female residents having to deal with the nursing staff being rude to them, having issues that they do for the male residents easily. And mumbling under their breath, that sort of thing. I spent a lot of energy making sure that wasn't going to be the case.'" (W04)</p> <p>"My co-residents are like, 'You gotta start bringing them in, like, food on the weekends and, like, cookies and donuts and stuff,' and I'm like, 'This is ridiculous, I'm on a resident's salary, I cannot afford to be bringing them in food just to get in good graces!'" (W33)</p>

*(continued)*

Table 5. (continued)

Theme	Illustration
Performative niceness	<p>"Every time I'm on the ward I put my phone away, I'm looking and making eye contact with everyone, I'm trying to say people's names, I'm trying to smile, ask them about something, tell them about a patient that they shared with me so that they feel a connection. . . . And so the nurses on the floor now like me, and so they're less prone to calling me to move my patients off that floor." (W17)</p> <p>"I'm just really nice. I mean I try to thank them for their work. I make sure to compliment them when they go outside of their job duties or above and beyond so to speak." (W08)</p> <p>"At one point I even got called into the chairman's office to say, 'You gotta start to talk really nice to them,' and I'm like, 'Are you joking me.' . . . And he's like, 'You just gotta kinda swoon them,' and I'm like, 'That's ridiculous.'" (W33)</p> <p>"I'm also southern. So (<i>laughs</i>) that's just part of my DNA to be nice. But some of my fellow [women] residents when I was in training were not in the same way. I mean, they were nice people, but not the southern hospitality expectation, per se. And that was not as received, that was not received as well by the nurses." (W38)</p>

good with the nurses I work with. . . . You kind of just sigh and like, "Okay I'll just deal with this," and you keep on going. Because you don't always want to make a production out of everything, because then you're not going to get help [from the nurses] when you really need it. (W12)

I just try to do as much as I can myself and be as helpful as I can even with some of the smaller things that might not be expected of me so that if I am really in a situation where I need someone's help, that I have sort of paid my debt upfront, you know? So that if I am asking for favors [from nurses], I already have a few credits in the hopper, so I don't feel like I'm taking advantage of somebody. This is more of a reasonable request. (W03)

In contrast, men informants didn't feel like they needed "credits in the hopper" and reported doing less of this type of work:

I think maybe for the first couple months I was doing some of that, but . . . I was happy to get that kind of stuff off. I got plenty other things that I'm trying to juggle. So that would've just sucked my time. (M25)

One man surgeon noticed that women surgeons would perform nurse tasks and that while this behavior was required of women to be respected by nurses, it was not required for men surgeons but could help them earn "extra points" with the nurses:

I remember as a resident, the female residents would go above and beyond and do things that I would never envision doing, and it was kind of a measured plan to do those things because they felt like they would ingratiate themselves with the nurse. . . . For me, I don't do it to reach a level of standing where the nurses will just be cordial, I do it for extra points. (M30)

Most women surgeons noted that they didn't observe their men colleagues performing nursing tasks:

No, they [men surgeons] don't at all. They don't even need to. I think that's not a secret. I think that they don't even have the expectation that they need to do any of those things. It wouldn't even occur to them. Even the male residents . . . they don't feel the need to do those things as much, for sure not. . . . There's an expectation on women to do it. For guys, it's crazy or just something they would be patted on the back for being a great guy and doing it. (W09)

*Excessive accessibility.* A second form of relaxing task boundaries suggested by women surgeons was associated with the effort to be as accessible to nurses as possible, both in terms of being present and available for questions and intentionally showing willingness to learn from nurses. With respect to the former, as one informant said,

I also get to know my OR staff, and if they have questions they get to ask me. And my OR staff has actually said that to me, "We love it, [doctor's name]. You'll call us or you'll come early, and we get to ask you questions about what you need or what you think you don't need." (W10)

Surgeons also described how women surgeons were most successful with nurses when they showed humility and deference by being particularly willing to learn from nurses. For example,

She [a woman surgeon] spent time at fellowship where I did, where our approach—guy's approach—was you go in there and you establish who you are and then they kinda follow along. She did the opposite. She's like "Hey, I wanna learn from you guys as much as I can. How do you guys do it here?" And because she did it, because she did it the way she did, she didn't come from a place of weakness, the nurses could sense that she knew what she was doing. But she wanted to hear what they had to say. They opened up to her right away. (M05)

**Relaxing personal boundaries.** The second form of status-leveling behavior identified was relaxing relational boundaries, which included *strategic befriending*, building social relationships with nurses to improve relations, and *performative niceness* or taking a "killing them with kindness" approach in interactions with nurses. See Table 5 for additional illustrations of these themes.

*Strategic befriending.* Women surgeons engaged in various types of relationship-building behaviors with nurses, often because they felt they needed to in order to avoid penalties from nurses:

I certainly know a lot more about them [the nurses] than my male colleagues do. I know their names, their kids' names. I know what they like to do for fun, we're Facebook friends. . . . I do take the opportunity to socialize before I ask them for something. You know, "Oh hey, how's it going, tell me about your son's soccer game last week and what's going on with your new dog, and oh, by the way, I'm going to see the lady in 78, could you get me a suture removal kit so I can take out her drain?" There's always a level of chitchat before the actual work happens. (W19)

I bake cookies for clinic. Men never do that, but it works and helps grease the wheels. . . . I get to know what your kids' names are, show me a picture of your

baby, are we ready to do this biopsy. Christmas cards, share pictures of my own baby, so they have that in common. (W07)

Many women surgeons reported believing that becoming friends with the nurses was necessary to get things done:

The general rule is that if you're a female trainee you have to work really hard to be friends with the nurses so that things actually get done. Versus the male residents never had to do that. They could be an intern and know nothing, but the level of respect given to them, by and large, is very different. And I don't know if it's like a complex of the female nurses who feel like because it's another woman talking to them that we need to play nice in the sandbox. (W38)

This same participant went on to describe that she felt that nurses had to have a level of personal connection with her to garner a "level of respect" from them:

The general perception is that women should be friendly, and we should be friendly to other women. . . . But it's also like why do I have to bribe the nurses for them to just do their job? Why do I have to hang out with them at the nurses' station and chat, and let them in on my personal life? Why do they feel like they have to have that personal connection with me for them to have a level of respect for me? (W38)

In contrast, while they reported observing women surgeons needing to do this, men surgeons did not report feeling that they themselves needed to befriend nurses or get to know them in order to accomplish their work:

If you are the male surgeon and want to fit in with the nurses, you've got to have an authoritative presence. . . . Women surgeons need to be more social to fit in with that dynamic. . . . You would be expected to bring in brownies and hang out and talk about your kids and stuff like that. (W43)

One informant said the following about his wife, who is a surgeon:

I feel like she's had to be more personally friendly with them. Like getting to know them on a more on a personal basis. I mean knowing their life story and that type of thing. More of a deeper friendship with them than I have to have. (M44)

*Performative niceness.* Another relational strategy that most women surgeons used with nurses was a "killing them with kindness" approach. While other status-leveling behaviors all had elements of showing consideration toward nurses, this one focused on women surgeons' beliefs that they had to "be nice" at all times to earn nurses' allegiance and respect:

I just learned early on that you couldn't challenge them toe-to-toe and use your status as a physician to get your way. If you really wanted to get buy-in, the way to do it was to be nice to them, be kind to them . . . those kind of things, to kind of earn their allegiance. And if you've done that I've found that they would go to bat for me, they would help me. (W28)



Women surgeons worried that if they did not engage in performative niceness they would be less supported in their work. They described feeling that they had to be conscious of treating nurses with extra kindness:

I have found I have to do an exceptional [amount of saying] “Oh my gosh, thank you so much!” . . . Not that I don’t want to create a good team dynamic, but it gets tiring having to be like, “You’re amazing! You rock! Can you please do this? How can I help you today?” So I’ll actually do that to try to help out the nurses just because I know it creates a good relationship. . . . And I think I do it, one is to be a good person, and two sometimes I think I’m doing it to gain clout. (W13)

Men surgeons did not describe needing to take a similar approach. As one responded when asked if he felt he had to be extra nice to nurses to get his work done,

That’s interesting. I don’t really feel like I have to ingratiate myself to nurses to get my work done. If anything, it helps to be a bit more authoritative at times. (M45)

Another noted,

The male surgeons can walk around barking orders and be gruff and whatever else. The female surgeons have to be nice and friendly and bringing you brownies. . . . So, it seems like a double standard. (M43)

While women surgeons described many ways in which they felt they had to actively manage the relationship with nurses, when asked if they had to actively manage this relationship, men surgeons answered, “For the most part, no” (M44). For example,

No, I don’t think so . . . It’s not like something I have to think about all the time. It’s just that I think the relationship that I have with most of the nurses here seems to just work. (M43)

They’re [the nurses] pretty responsive. So I’ve been pretty lucky is what I’m getting at. (M41)

### **Explaining the Effect of Status-Leveling Behaviors**

Why might these status-leveling behaviors help women surgeons in the context of the gender dynamics described above? Adapting a term from the strategic human resource management literature, we suggest that status-leveling behaviors by women surgeons create “symbolic egalitarianism” between themselves and women nurses. Symbolic egalitarianism has been used to refer to organizational attempts to engineer egalitarian cultures through practices that blur the hierarchical status in organizations (e.g., giving executives the same size offices as other employees, or eliminating reserved parking and executive dining rooms) and thus signal to others that there is comparative equality in a social context (Pfeffer, 1995). We adapt the term to suggest that, just as symbolic egalitarianism practices in organizations make vertical collaboration easier (Pfeffer, 1995), the symbolic egalitarianism fostered by status-leveling behaviors smooths collaboration between women surgeons and women nurses by easing status tensions in the relationship associated with

perceived inequality and gender norm violations. In other words, although the occupational status differences between women surgeons and nurses create tensions between women, symbolic egalitarianism eases these tensions by blurring occupational status distinctions (Hornstein, 2003).

In particular, we suggest that the symbolic egalitarianism associated with status-leveling behavior works to facilitate cross-occupational collaboration because it diminishes status distinctions between women surgeons and nurses at both task and relational levels. From a task standpoint, women surgeons show a willingness to take on some of the tasks of nursing and to make themselves highly accessible to nurses, thereby diminishing differences between the occupational tasks, and thus occupational status, of doctors and nurses. From a relational standpoint, women surgeons' befriending of and niceness toward nurses create the impression that "I'm just like you" and thus diminish inter-occupational status tensions. Whitener and colleagues (1998) noted that behaviors characterized by sharing and delegation of control, communication, and the demonstration of concern are conducive to the development of mutual trust, caring, and respect, which have implications for increased cooperation via blurring of status distinctions (Zhang and Morand, 2014). In a similar manner, helping nurses with their work and fostering relationships with them appears to help women surgeons build high-quality exchange relationships with nurses characterized by respect and mutual obligation, which they believe encourages nurses to want to reciprocate helping, liking, and civility. However, performing status-leveling behaviors, and the symbolic egalitarianism those behaviors fostered, had both positive and negative implication for women surgeons.

### Implications of Performing Status-Leveling Behaviors

On the positive side, many women surgeons reported that these behaviors could translate to increased cooperation and patient care efficiency. On the negative side, these behaviors were time consuming and emotionally demanding, creating increased work demands for the women surgeons who performed them. See Table 6 for additional illustrations of these themes.

**Positive implications: Increased professional effectiveness.** Many women surgeons said performing status-leveling behaviors increased the probability that nurses would cooperate with them and that patient care would flow efficiently.

*Cooperation.* Participants provided lengthy descriptions of how engaging in status-leveling behaviors made them more likely to gain cooperation from nurses than their women peers who did not do so. Some went to extreme lengths, such as spending their very limited free time building personal relationships with nurses because they felt they had to:

I know who they [the nurses] are dating and who broke up with whom and whose kid does what . . . it was a lot of emotional labor, just to do all of that. But it made sure that my orders got done quickly. My [women] friends knew about it and would have me put in orders in radiology. . . . My friends would need a CT scan done quickly [and would ask me] "Can you just put it in? Because if they see your name, they'll do it quickly," and they would because I would go out and just hang out and get them

**Table 6. Implications of Status-Leveling Behavior: Additional Illustrations**

Theme	Illustration
<b>Positive Implications: Increased Professional Effectiveness</b>	
Cooperation	<p>"When I started, I felt like I had to be overly cautious, I had to be more careful in how I phrased things when I was requesting or changing plans from what would be typical in this unit when I first started. But now, I would say I have a very close relationship with the nurses, very positive, I think they trust me, and I trust them, and I really enjoy working with them." (W34)</p> <p>"They [women] have less options than the guy surgeons do. So anytime we have female surgeons who've been very successful, I always have the younger surgeons . . . just go and absorb and watch how they do what they do. And try to mirror how they take care of stuff. And then sit down and talk to them and say 'Look, when you have someone who confronts you, how do you not fly off the handle? How do you not take it personally? How do you not try to stand up for yourself?' It's not that they're not standing up for themselves, but they found out a way to do it that's not confrontational but always establishes who's in charge. There aren't a lot of female surgeons who can do this. And the ones who do, the other female residents flock to them. Because they can see how successful they are." (M05)</p> <p>"Most of the people that I work with understand that I am not trying to do anything to be the boss of them, I'm doing it because as a team, we're gonna take care of the patient. And I try to be very deliberate in my words when I ask for assistance or when I come into a new working environment. And it seems to work." (W29)</p> <p>"I knew that if I did a procedure and I left a clean bed when I was done, the nurses were really appreciative of that, and that would go a long way to put me in their good graces." (W28)</p>
Patient care efficiency	<p>"Even though I'm a doctor [and] they're a nurse, because we're both female, the bar is lower, people are not considering us as other. So, I don't think they felt intimidated calling me directly. . . . And I don't think that they have that same level of comfort with my male colleagues. . . . I feel like [it helps me] in my care and ability to take a more comprehensive care of my patients because I hear about things more often then, that I would otherwise [not] hear about." (W17)</p> <p>"Every team member has an equal vote in deciding how we proceed with that patient. My bariatric nurse coordinator and my nurse practitioner have an equal vote in that patient's clinical course as I do as their surgeon. My psychologist has an equal vote, my two registered dietitians have an equal vote, as a pure democracy. . . . And I think for my nurses, when I said that they were kind of like 'What?' So I don't think a doctor had ever done that with them before clinically. . . . [T]he reality is my dietitians and nurses see my patients more than I do, and they know things about my patients that I don't. . . . I really like it, because they bring us things that I don't necessarily look for." (W18)</p>
<b>Negative Implications: Increased Work Demands</b>	
Time demands	<p>"I had a recent interaction with a nursing supervisor where she was telling me the rules about something and I said, 'You are telling me the hospital rules, but I am telling you what this patient needs.' And it was a 45-minute conversation about it. That would not have happened if it was one of my other partners. That day it added an hour to my work." (W04)</p> <p>"I can remember a few times where they're [nurses] too busy or aren't really wanting to do it. Then I will grab all the supplies myself and then do it myself and clean up everything. Not a huge deal, but two minutes here and there adds up." (W07)</p> <p>"Because I have to be extra nice, then it's, 'Well she doesn't mind if the turnover takes an hour.' Which is not true. I mean clearly, it frustrates me, but I can't say anything so I have to deal with the turnover being an hour when for him that is totally 100% unacceptable and that would never happen because they would be running and rushing, doing all this stuff to get ready when for me they're way more laid back. . . . You're still gonna run around and bust your butt in order to get things done [for him], but for me the turnover is going to be 45 minutes as opposed to him it's going to be 20." (W39)</p> <p>"And I think like the off OR activities are certainly a drain that I think are pretty common to women . . . so like all of that stuff is a drain on people's time and resources that certainly in a gender-based fashion are doing more than men. I think if you're looking at performance in surgery, certainly those things are more work." (W09)</p>

(continued)

Table 6. (continued)

Theme	Illustration
Emotional demands	<p>"I was in just this really abusive residency program, where there was no support. There were no mentors, and they just worked us to death, and I was physically just at the end of my rope, exhausted. And then on top of it you just had to be at the top of your game all the time, despite the physical exhaustion. It was just really like being hazed, and like a boot camp. And I just remember thinking, 'These people have no idea what I'm going through, and I'm supposed to be pleasant? I mean, you've gotta be kidding me.' I can't be pleasant under these circumstances, it's impossible." (W36)</p> <p>"You're in the grind of it, I mean, you're just, you are a busy bee, and you just have a to-do list a mile long and you are just trying to get through it, and it's hard to stop after every single thing to be like, 'Thank you, thank you,' when there are things that are expected of them, you know what I mean? Like they're just doing their job." (W33)</p>

drinks and stuff. I did all of this stuff because I was very aware that you had to. . . . My intern class was me and seven boys, and they did not. They half the time didn't know the nurses' names. It was remarkable. (W04)

Another explained that these types of status-leveling behaviors would foster a type of reciprocity, whereby if they helped nurses with their tasks, nurses would be more likely to help them in return:

I help them get some of their work done so that they can go to the next thing. That way, when it's my turn to need five new items that I didn't ask for at the beginning of the case, that's the reciprocal type of work. . . . It's a good idea to help out so that when we get to the time that's the busiest for me, which might be her downtime, it's more of a reciprocal kind of environment. (W29)

*Work efficiency.* Many women surgeons said that doing nurses' tasks and being friendly and excessively accessible made patient care flow more efficiently than if they did not do these things:

I think this is a common phenomenon in medicine where we [women physicians] do more. And are sort of more friendly and acting in a more sort of collegial way rather than expecting people to do stuff for you. And that seems to help get things done. . . . I think that in the OR, in terms of like pre-op or getting patients to a particular place. Like actually physically more hands-on things such as moving the patients or putting in IVs. . . . I feel like it leads to things being more efficient. I feel like if people see you doing stuff, hopefully they'll not just sit around and not wait too. (W09)

Some surgeons also indicated status-leveling behaviors could have potentially broader positive implications for work quality with respect to patient care. We represent this broader implication in our model with a dotted line arrow (see Figure 1) because we did not have objective data on patient care quality but rather quotes that were suggestive of this implication. Informants told us that being excessively accessible to nurses enhanced patient care. One woman surgeon who makes herself available for questions by coming to cases early explained, "That's why I do it. I mean every little bit adds to the case going well" (W10). Women surgeons also described how their investment in status-

leveling behaviors could translate into high-quality care because their high accessibility meant that nurses were more willing to call them with questions and concerns:

The extra time spent chitchatting with the nurses on the floor makes a difference too, because they're more open and willing to call with a concern because they know that they'll be taken seriously, or if they have your phone number. I don't think it's all bad. . . . [The] really hard part is teasing out what about this makes us better doctors and what about this wastes our time. I have no idea how to figure all of that out, I just know that there's a reason that women are rated as better caregivers than men, and it has to be some part of some of this equation. (W19)

This surgeon acknowledges the two sides to status-leveling behavior with nurses. On one hand, it "wastes our time," and on the other, it might translate to women surgeons being rated "better caregivers" than men surgeons. This surgeon goes on to explain that the trick is to figure out how to keep the strategies that are helpful to patient care but eliminate the ones that are "unproductive":

I don't think that women surgeons should be just like men surgeons, because I think that we fundamentally are different and have different things to offer. So it's not about just decreasing or eliminating all of the quote-unquote women behaviors, it's just about eliminating the nonproductive ones and the ones that don't help us or our patients. (W19)

**Negative implications: Increased work demands.** Status-leveling behaviors increased work demands for women surgeons because they were time consuming and emotionally demanding.

*Time demands.* Women surgeons noted that doing nursing work, being excessively accessible, and engaging in befriending behaviors with nurses took up time in their already extremely busy schedules. When asked how many hours each week she spent cleaning up after procedures and doing similar work, one woman surgeon responded, "Probably at least 10 hours." (W19) Another said,

Things probably take upward to 25% longer in any given interaction. I'll have to use 15 more words, and I'll have to take longer, and I'll have to deal with more questions. (W22)

Men surgeons echoed that these behaviors were time intensive for their women colleagues:

What it does is it takes more time. It takes more effort, and when you're tired or you're working a lot it becomes much harder. So asking a female surgeon to have to do this 29 times when they round on 29 patients, and they've been up all night and they're 36 hours into a shift is beyond laborious. And it becomes like a weight that's on you all the time. And it's super difficult. (M05)

One surgeon noted that adopting a strategy of being relational and nice meant that she often got assigned the newer and less qualified nurses because it was

known that she wouldn't yell at them if they made a mistake. These assignments negatively affected the surgeon's efficiency as she had to slow down to teach and support the inexperienced nurse:

I try to thank them for their work. I make sure to compliment them when they go outside of their job duties or above and beyond. I never shout, which apparently is unusual for a surgeon. . . . I'm not as scary, so I will tend to get more often the brand-new nurses fresh out of school or the one notorious nurse who is known to be kind of incompetent. I get her all the time. . . . I'm not going to scream at her or reduce her to tears if she makes a mistake. We're gonna kinda work through it. So, I think that my workflow could be substantially more efficient sometimes if I shouted. (W08)

*Emotional demands.* A second negative implication was that performative niceness—constantly thanking, being nice, and showing extreme appreciation for nurses—was a form of emotional labor (e.g., Grandey, 2000) that was draining for many women surgeons:

I feel like I have to talk really sweetly and you know, like with sugar on top. "Can you please do this for me?" And "Thank you so much!" And I just find that that is just an extreme amount of extra effort all the time. . . . I feel like I have to be so happy and nice, it's almost painful for me, to have to put that much energy into okay, I need them to get Tylenol, so I'm going to have to say it really nice, and really perky, and "Could you *please* help us do this?" Because if I say it directly, it's almost offensive sometimes to women. (W13)

[Being nice all the time] it's something that I had to try really hard to be really mindful about . . . I find it to be really hard. I have to spend so much of my energy being mindful about what other people might be thinking. . . . There's definitely challenges for me surrounding that. (W36)

One informant noted that performative niceness was fine if it fit your personality but otherwise would be very difficult to maintain:

I like the nurses and I like people, and I try to just be pleasant. I don't feel like I'm putting on an act. But if you felt like you had to do that to be successful it would be very oppressive. (W09)

One surgeon said the work of being extra nice to nurses all the time was so draining that she had trouble functioning after work:

But that experience [being evaluated as "difficult"] reinforced to me that you have to continue doing this [being extra nice to nurses]. . . . I call it performative extraversion. On the weekend I round in the mornings on Saturday and Sunday and then I cannot talk to anyone else during the weekend. I cannot interact with another human person because it is just so much to just be "on" basically. I kind of feel like I have to be. (W04)

In addition to these day-to-day negative performance implications, surgeons also shared how the work demands associated with performing status-leveling behaviors could have potentially broader negative implications, including risk of attrition from surgery and productivity concerns. As described above, we represent these broader implications in our model with a dotted line arrow (see

Figure 1) because we did not have objective data on these outcomes but rather quotes that were suggestive of these possibilities.

With respect to risk of attrition, some women surgeons spontaneously mentioned that the status challenges they had experienced and the behaviors required to help mitigate them were a factor in them considering, or having considered, leaving surgery:

Our jobs are stressful enough, taking care of patients who have bad cancer, or complications, or are terminal and you can't do anything else for, is stressful enough. Then having all of this "make sure you ask nicely, make sure you say yes to everything, always have a smile on your face." And "Oh the scrub nurses don't want to call you by your last name, they want to think that you're friends with each other." . . . [I]t's all of this BS surrounding that makes me not want to do it. (W13)

What you learn over time is that you can be super, super nice 95% of the time, and then it's the one time that you slip up, because you're really stressed out, and you immediately erase all of that social capital that you've built. Cuz we're not allowed to have a bad day, ever. We have to be super sweet all the time, and the minute that you're not, that's the only thing that people remember. It makes it exhausting. It's exhausting to change institutions [because of strained relationships with nurses] and to make career moves. . . . I'm going to have to go to a new place and prove myself, and I have to prove myself while being like super likeable. . . . I came very close to leaving surgery altogether. I was reaching out to people to ask, "What can I do?" and I almost left medicine. . . . I felt like I was losing my mind, you know? (W36)

A second potential broader implication of the increased work demands associated with status-leveling behaviors was reduced overall productivity for women surgeons as compared with men. For example,

In the time I spent after the procedure I did in clinic today cleaning up all my stuff, I could've seen another patient, but I didn't. I took the time to throw all of the individual sharps away and wipe down the ultrasound machine with the antiseptic wipe and make sure that the instruments were put back in the dirty utility room. (W19)

The same informant went on to speculate that this lower productivity associated with taking on these additional work demands could be linked to the recognized gender pay gap in surgery (Jena, Olenski, and Blumenthal, 2016), as pay is often based on the number of patients seen:

There's a gender wage gap, and a lot of it is related to productivity, and I think that I do it to myself a lot, because I take a lot of time doing things I wouldn't necessarily have to do otherwise. (W19)

Taken together, our findings highlight how and why surgeons perceive that, due to shared gender, nurses expect greater status equivalence with women (but not men) surgeons. This gendered expectation creates status tensions in the relationship and constrains women surgeons' use of their formal authority to gain cooperation from nurses. In this context, women surgeons appear to navigate these dynamics by engaging in status-leveling behaviors that foster symbolic egalitarianism by relaxing the task boundaries between the two occupations and the relational boundaries between occupational members. The status-leveling behaviors associated with the status-leveling burden are a

mixed bag for women in male-dominated occupations. On one hand, by engaging in these behaviors, women surgeons are able to smooth the collaboration with nurses that is challenged by gendered expectations for status equivalence. Women surgeons' investment in building relationships with nurses is a practice that has potential benefits in the form of better cooperation and efficient patient care. On the other hand, status-leveling behaviors pose significant challenges in terms of women surgeons' day-to-day work demands and may have negative career implications in terms of individual work productivity and risk of attrition. It appears that status-leveling behaviors have benefits that come with very high costs, thereby posing a significant burden for women in male-dominated occupations.

## DISCUSSION

Women in male-dominated occupations face well-documented gender-based challenges in their interactions with members of their own occupation and with others. Prior literature suggests that women in these roles experience the backlash associated with violating gender stereotypes, pressure to assimilate into masculine occupational and organizational cultures, and the associated need to try to distance themselves from other women and downplay their gender identity, instead displaying the same leadership behaviors as men in order to be successful. While providing important insights, this literature has failed to consider how the addition of occupational status dynamics in cross-occupational collaborations may create new challenges and necessitate new coping strategies for women in male-dominated occupations. Conversely, although the literature on cross-occupational collaboration has considered the benefits to this collaboration within shared demographics it has not considered the potential conflict that may arise from shared demographics structured across occupational status hierarchies. Thus, while the gender literature has been largely "occupation neutral," the cross-occupations literature has been largely "gender neutral."

In addressing this issue, we found that women in male-dominated occupations collaborating with women in female-dominated occupations experience unique dynamics that push them to act in ways that are counter to what prior research might predict. These collaborations necessitate that women in male-dominated occupations conform to feminine stereotypes in their interactions with women (but not men) in the female-dominated profession, assimilate to the feminine culture of that occupation, and ingratiate themselves to women in that occupation to avoid penalties. Specifically, we found that in response to previously unidentified challenges (i.e., expectations for status equivalence), women in male-dominated occupations collaborating with women in female-dominated occupations engage in response strategies (i.e., status-leveling behaviors) that constitute a previously unidentified burden—the status-leveling burden—for women in male-type occupational roles. Our findings offer novel contributions to the literatures on challenges to women in male-dominated occupations and cross-occupational collaboration.



### Challenges to Women in Male-Dominated Occupations

We make three contributions to the literature on challenges to women in male-dominated occupations. First, while prior research has shown that women in male-dominated occupations experience gender-based challenges in their collaboration with members of their own occupation, as well as from occupationally unspecified “others” in the workplace (Rudman and Glick, 2001; Eagly and Karau, 2002; Garcia-Retamero and López-Zafra, 2006), this is the first study to our knowledge to demonstrate the challenges and response strategies that women in male-dominated occupations face in their collaboration with women across occupational status hierarchies. Our findings, combined with evidence from past research, show that women in male-dominated occupations must navigate not only the gender-based challenges associated with being “one of few women” within their profession (Cochran et al., 2013) but also the occupational and gender status tensions, and performance implications, of needing to try to be perceived as equals with women in adjacent occupations because of their shared gender. It appears that women in male-dominated occupations have to manage gender status challenges both within and across occupational boundaries and consequently status challenges from those above, at, and below them in the occupational status hierarchy. This highlights the troubling fact that women in male-dominated occupations are experiencing status-based challenges from all sides.

Interestingly, however, status-based challenges did not appear to come from men in the female-dominated occupation, suggesting that the dynamics we observed are specific to woman–woman interactions and thus related to shared gender status. Although all members of the female-dominated occupation (nurses) have lower status in the institutional hierarchy than members of the male-dominated occupation (doctors), those in the male-dominated occupation believe that women in the female-dominated occupation expect that being of the same gender should partially or completely offset that status difference. The fact that high-status women engage in status-leveling behaviors suggests that whether they are right or wrong about nonsymmetrical gendered expectations for status equivalence, they believe that women in the female-dominated occupation hold these attitudes, and they respond accordingly.

Second, previous literature on challenges to women in male-dominated occupations has definitively shown that in response to perceptions that they are not suited to high-status roles (i.e., status incongruence, lack of fit theories), women experience pressure to adopt masculine behaviors to be granted authority, recognition, and respect in these roles (Cheryan and Markus, 2020). Moreover, in response to this pressure, women may distance themselves from other women and otherwise downplay their gender identity in order to be successful (Ellemers et al., 2004; Garcia-Retamero and López-Zafra, 2006). But our findings highlight that women in male-dominated occupations collaborating with women in female-dominated occupations face an additional pressure to adopt the feminine behaviors (i.e., feminine defaults; Cheryan and Markus, 2020) of the female-dominated occupation to gain the cooperation they need to do their work. In this context, instead of increasing distance between themselves and other women, they try to minimize the perceived distance that occupational status differences create. This suggests that women in male-dominated occupations managing their collaborations with women in female-

dominated occupations face two sets of competing pressures that require management: the need to conform to the masculine defaults of their own occupation and the feminine defaults of the collaborating occupation (Cheryan and Markus, 2020). This challenge is significant, as it is already cognitively and emotionally effortful for women surgeons to enact masculine defaults. While the women surgeons we interviewed expressed a desire to be able to just focus on their work, they recognized that their ability to work would be hindered unless they navigated both gender defaults by adding to their behavioral repertoire the types of status-leveling behaviors we identified.

Third, in unpacking the status-leveling burden, our findings introduce yet another form of double bind for women in male-dominated occupations and thus an additional source of external pressure. As noted, previous studies have shown that to be perceived as qualified, high-status women need to demonstrate masculine behaviors, i.e., agency. Yet when they do, they risk prejudice and other forms of backlash for behaving counter-stereotypically, i.e., failing to display warmth (Heilman, 2001; Rudman and Glick, 2001). Our research shows that in cross-occupational collaboration women in male-dominated occupations experience this form of double bind with women but not men in related female-dominated occupations, suggesting this double bind is gender nonsymmetrical in collaboration between gendered occupations. Thus our findings highlight that women in male-dominated occupations experience a unique type of double bind whereby they must demonstrate the same authority and status as their men peers, but when they do, they risk the backlash of being perceived as though they are “above” women in the female-dominated collaborating occupation.

Consistent with this new description of the double bind, by engaging in status-leveling behaviors to try to avoid penalties and gain cooperation from women in female-dominated occupations, women in male-dominated occupations could run the risk of compromising their high status in the eyes of their male occupational peers. This possibility is illustrated by one of the strategies used by women surgeons in our sample—task helping. Previous research has shown that professionals resist performing work that can be performed by occupations lower in the institutional hierarchy because it does not require their professional expertise and thus undermines their status as experts (Schwartz et al., 1992; Huising, 2015). Thus, although performing tasks typical of the female-dominated occupation may help women in male-dominated occupations to gain the cooperation they need, it not only creates more work for them but also may undermine their status in the eyes of peer observers. This may similarly occur if men peers observe their women counterparts as being “too nice” or “too friendly” with women in closely aligned occupations.

### **Cross-Occupational Collaboration**

Just as our findings reveal the absence of consideration of inter-occupational status hierarchies in the literature on challenges to women in male-dominated occupations, they also highlight the problematic conflation of gender and occupational status hierarchies in the cross-occupational collaboration literature. Our findings highlight that because many occupational hierarchies are not gender neutral (Reskin, 1993; Ridgeway, 2001), we cannot assume that the formal authority vested by occupational expertise and knowledge over a domain of

work can be relied on by all high-status occupational members to garner cooperation from members of other occupations when gender also confers status.

Our research also challenges assumptions from literature on shared demographics in cross-occupational collaboration. Research has shown that cross-cutting demographics can facilitate cross-occupational interactions by increasing identification, liking, comfort, and trust via the homophily effect (McPherson, Smith-Loven, and Cook, 2001). DiBenigno and Kellogg (2014) showed that the cross-cutting demographics of immigration status, race, and age helped smooth inter-occupational interactions by loosening individuals' attachment to occupational status differences. But we find that shared gender across occupational status hierarchies creates challenges in cross-occupational collaboration by heightening occupational status tensions rather than diminishing them.

The fact that gender may work differently from other shared demographics across occupations introduces opportunities for discovery related to a novel form of intersectionality in the workplace—that related to the intersection of occupational and non-occupational identity characteristics in the workplace. Intersectionality acknowledges the interconnected nature of social categorizations, such as race, sexuality, gender, and class, and regards them as creating overlapping and interdependent systems with implications unique from the implications of any one categorization alone (e.g., Crenshaw 1991; Parent, DeBlaere, and Moradi, 2013). Consistent with this idea, our research highlights that the intersection of occupational and non-occupational (i.e., gender) identities has implications for cross-occupational collaboration that are unique from the implications of either one alone.

Additionally, our model makes apparent that different forms of cross-occupational collaboration may be expected when gender is shared across occupational status hierarchies. Traditional notions of bureaucratic and meritocratic power and status suggest that an occupational member's ability to elicit cooperation from members of other occupations is based on formal position in the occupational hierarchy (e.g., Weber, 1978; Abbott, 1988). For women in male-dominated occupations collaborating with women in female-dominated occupations, we highlight another path that seems to be required to gain cooperation based on signals of equality, such as status-leveling behaviors. This second pathway to gaining cooperation appears to be employed by women in male-dominated occupations collaborating with women in female-dominated occupations because they perceive the traditional pathway as less available to them. Thus our findings run counter to prior assumptions that members of the occupation higher in the institutional status hierarchy should be able to garner cooperation from members of occupations lower in the status hierarchy based on their recognized higher professional authority (Abbott, 1988). We show that for women in male-dominated occupations, shared gender with members of collaborating occupations complicates perceptions of higher professional authority and thus obliges them to engage in behaviors that level the status differences between them and women in occupations below them in the status hierarchy.

Our findings thus identify significant omissions from our prior understanding of the challenges and coping strategies of women in male-dominated occupations. In unpacking the status-leveling burden, we highlight that going forward a complete understanding of women's experiences in male-dominated

careers needs to incorporate a clearer delineation of the relation of these women to other groups in supporting occupations. Models and theories should show an understanding of how combining status hierarchies creates complexities for shared and non-shared identity features, especially gender. Future models might also incorporate the additional factors identified here as potential causes of new or exaggerated negative, and sometimes positive, consequences for women in male-dominated careers stemming from having to conform to two sets of gender defaults and status leveling with women in occupations lower in the institutional status hierarchy.

Based on these dynamics, women in male-dominated occupations collaborating with women in female-dominated occupations may experience even more challenges than women in male-dominated occupations without such collaborations. For women who have to manage interactions across as well as within occupational boundaries, we should see greater incidences of workplace stressors and attrition risk factors associated with having to manage fraught interactions from “all sides.” Additionally, we may see heightened perceptions of lack of belonging as women in these contexts may feel socially isolated from their predominantly male occupational peers (as suggested by prior research, e.g., Robinson and McIlwee, 1991; Salles et al., 2019) and also from their same-gender collaborators, particularly if they do not engage in the relational strategies we identified to reduce status tensions. Conversely, we may see that women who engage in the types of relational strategies associated with status-leveling behaviors experience lower social isolation in male-dominated occupations because they can access the benefits of greater socio-emotional support from same-gender collaborators (Richman, vanDellen, and Wood, 2011).

Based on our model, we also expect to see the status-leveling burden play out in careers with the following features: (1) cross-occupational collaborations between women in gendered occupations; (2) an institutional status hierarchy, i.e., one occupation in the collaboration is recognized to have higher status than the other; (3) a high degree of collaboration or interdependence between occupational members. Accordingly, we would expect our findings to play out in physician–nurse collaborations in other medical specialties, but we should see the strongest similarity in medical specialties that are the most male-dominated, such as pulmonology and cardiology, which are both over 86 percent male (AAMC, 2020); this is where gender and occupational status will be the most unequally distributed across the two collaborating occupations. We also expect to see the status-leveling burden play out in cross-occupational collaboration between women in other male- and female-dominated occupations, such as between women lawyers and paralegals and between women dentists and dental assistants. Related to condition (3), we expect that women in male-dominated occupations will perceive the need to take on the burden of status leveling with women in female-dominated occupations when they rely heavily on them to perform their work and/or to maintain a positive image in the organizational setting. If reliance is weak, the perceived need to engage in status-leveling behavior should be lessened. For example, consider the case of women engineering faculty working with women administrative assistants. Here, while administrative assistants provide valuable assistance, the core work of the woman faculty member (e.g., teaching, research) is not heavily dependent on the administrative assistants. In contrast, we may expect to see

more status-leveling behavior in interactions between women lawyers and women paralegals because the work of these occupations is strongly interdependent (American Bar Association, 2020). We also believe that while status tensions and the status-leveling burden may be lessened (though still present) when there is a direct reporting relationship between the high- and low-status women, such as a woman dean who has hired her own assistant, both should be strongest in situations in which the reporting relationship is more ambiguous, i.e., a nurse hired by a multi-physician specialty practice or a paralegal hired by a legal firm with multiple lawyers.

### Practical Implications

Our findings also carry with them several implications for women in surgery and for women in male-dominated occupations more generally. First, and most significantly, our findings highlight that women in male-dominated occupations in cross-occupational collaboration with women in female-dominated occupations must confront a unique burden—the status-leveling burden—that poses a challenge to their ability to accomplish their work and advance their career. At the very least, women surgeons should receive mentoring related to the nature of this burden and how to navigate it. A few women in our sample reported that they had been mentored to this effect, but most described having “learned the hard way,” some even after having to leave an institution because of strained relationships with nurses. Mentoring women surgeons about navigating the status-leveling burden may help them avoid the physical and emotional stress, as well as potential extra work and reputation undermining, associated with developing poor relationships with nurses.

Second, our findings highlight that organizations need to attend to how gender and status dynamics between occupational members can result in more tangible and emotional work for women than for men. Leaders of health care organizations need to understand these dynamics and keep them in mind when they assess women physicians’ performance; frequent write-ups from nurses, more time spent on cases, and other performance outcomes may partly reflect the inherent challenges of being a woman in a male-dominated occupation collaborating with women in a female-dominated field. Our data show that men and women surgeons experience their work in relationship with nurses very differently, which has consequences for day-to-day work demands. Accordingly, our findings point to a need for health care leaders to understand these conditions so that women physicians are not penalized when it comes to performance evaluations, promotions, or pay equity (Gerull et al., 2019).

Third, men surgeons also can help alleviate the status-leveling burden for women surgeons in a number of ways. For example, they could call out gendered expectations for equivalence when they see them, e.g., “I noticed you questioning her orders, and I’ve never seen you do that with the men surgeons. Is there a reason you are treating her differently?” Research suggests that those least affected by bias have the strongest role to play in calling it out because they run less risk in doing so; thus men surgeons should call attention to gendered expectations for status equivalence when they occur (Ashburn-Nardo, 2018). Men surgeons should also be careful not to attribute the tensions between women nurses and women surgeons as due to dispositional factors (i.e., “women just don’t seem to get along”) rather than structural

factors (systemic status inequalities related to gender and occupation). Related to this point, research shows that tensions between women in the workplace are often due to underlying status inequality issues rather than anything inherent to being a woman (Sheppard and Aquino, 2013).

Fourth, while much research suggests that increasing women's representation in male-dominated occupations will reduce the gender-based challenges they face, our finding on the gender-nonsymmetrical status-leveling burden suggests another possible solution. Namely, the challenges women face in cross-occupational collaboration with women in traditionally female-dominated occupations may be mitigated by attracting more men to the nursing profession. Reducing the gender disparity within any given level in the institutional status hierarchy may reduce the gender-based status tensions found in our sample.

Fifth, our findings highlight that health care organizations may benefit from improved patient care when they encourage all surgeons to engage in the relationship-building behaviors with nurses seen among our women surgeons. Because men do not experience the status-leveling burden, they may not suffer the wage and productivity costs that women face. However, if they do not engage in these behaviors, they also may not receive the associated work quality advantages. This finding, and what it suggests about broader implications for higher quality care, aligns with objective data showing that women physicians are equally effective as or more effective than men in terms of patient care outcomes (Tsugawa et al., 2017; Wallis et al., 2017). In other words, despite women surgeons having to take on additional work demands associated with status-leveling behaviors, objective outcomes between them and their men counterparts do not seem to differ and may even favor women surgeons. Even so, there remains a gender pay gap in medicine.

### Limitations and Future Directions

This study has some limitations that present additional opportunities for future research. To begin, our focus on surgeons' accounts meant that we did not sample nurses for this study. Accordingly, our model is solely from the physicians' point of view. Although our focus still provides valuable insight about the status-leveling burden, future research should elaborate on the theory presented here by incorporating nurses' perceptions and behaviors. Moreover, future research may also consider sampling men nurses in an attempt to elaborate on our findings with respect to women and men nurses' nonsymmetrical reactions to women surgeons. As previous studies have described, being a man in a female-dominated context means different things than being a woman in a male-dominated context (Wharton and Baron, 1991). Men in female-dominated occupations may react less strongly to gender-based attitudes and expectations (Tsui, Egan, and O'Reilly, 1992). Future research is needed to test this and other potential explanations for the nonsymmetrical findings reported here.

Related, we have described the potential attitudes of nurses as inferred by surgeons. But it may also be that women surgeons experience their own status tensions in their relationships with nurses such that they may feel uncomfortable exerting their status over other women even though their occupation is higher in the institutional status hierarchy. Women surgeons are also likely to

have internalized gender norms for communality and may be sensitive to norm violations, as well as their consequences, in their treatment of others, including nurses (Heilman, 2012). Thus they may be motivated to temper the high assertiveness and authoritativeness required in surgery with communal behaviors, such as those associated with status leveling. Previous research has shown this type of behavior among women leaders, who use more consideration of others in their leadership than their men counterparts do (Eagly and Johannesen-Schmidt, 2001). Finally, because women surgeons are “one of few” in surgery, the isolation they experience may make relationships with other women on the health care team even more important (Floge and Merrill, 1986). Thus they may be sensitive to “tanking the relationship” with nurses and act to avoid this possibility. Although there was nothing in our data to suggest this was the case, future research is needed to rule out these and other possibilities.

Next, the surgeons in our sample had relatively low post-fellowship professional tenure (average 3.5 years) by design, and this may have implications for our findings. Status tensions and the status-leveling burden may be exaggerated for early career surgeons who are still building their reputations, and the status-leveling burden may be eased somewhat as women surgeons’ careers progress. But we believe given our findings that while status tensions will be diminished as women surgeons become more aware of the need for status-leveling behaviors and adept at engaging in them, the status-leveling burden is likely to remain over time. We encourage examinations of whether and how our findings generalize to surgeons with longer tenure.

Additionally, characteristic of inductive studies, our study is strong in its attention to realistic depictions in natural settings, but there are limits to external validity inherent to the methodology. This limitation is attenuated somewhat by the potential of an inductive approach for analytical generalizability: generalizations from empirical observations to theory, rather than to a population or specific context (Yin, 2013). This type of generalizability refers to findings applying to organizations or occupations similar to our context in theoretically important ways (Pratt and Bonaccio, 2016). Hence, as described above, we believe our model will generalize most to cross-occupational collaborations between women in gendered occupations when there is an occupational status hierarchy and when occupational members have a high degree of interdependence. Future research is needed to test our model in other contexts with these criteria.

Another important direction for future research is to examine the status tensions and responses among women surgeons with greater attention paid to the intersectionality of individuals’ multiple identities ranging in societal status. Previous research has noted, for example, that race and gender likely interact to influence minority women at each stage of the professional development process (e.g., Wingfield and Alston, 2012). Therefore, future work should consider what unique tensions, responses, and performance implications are experienced by women surgeons of color and others holding multiple marginalized identities.

## Conclusion

Many male-dominated occupations have cross-occupational collaborations with female-dominated occupations lower in the institutional status hierarchy, making it critical to further an understanding of the challenges experienced by


women in male-dominated occupations in these types of collaborations. Our study suggests that women in male-dominated occupations experience a novel dynamic in this context, the status-leveling burden, which stems from inter-occupational status tensions between women. This creates challenges for women in male-dominated occupations in terms of the time and emotional demands associated with performing status-leveling behaviors to manage status tensions. But by performing these behaviors, women in male-dominated occupations increase their chances of gaining cooperation from women in closely aligned occupations. Managing the status-leveling burden may contribute to women in male-dominated occupations being more effective in their work but at the cost of challenges related to productivity, burnout, and retention.


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### Supplemental Material

Supplemental material for this article can be found in the Online Appendix at <http://journals.sagepub.com/doi/suppl/10.1177/00018392211038505>.

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