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**Parenthood: Penalty or Premium?**  
**The Effect of Parental Status and Gender on Perceptions of Doctors**

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## Introduction

With traditional gender roles that put women at home instead of the workplace increasingly becoming a thing of the past (Zuo & Tang, 2000), it would seem reasonable to assume that discrimination against women in the workplace should be fading at just as fast of a rate. This, however, is not the case, as women continue to face gender discrimination, barring them from equal employment opportunities and detracting from what progress has been made (Bobbitt-Zeher, 2011; Gregory, 2000). A recent survey showed that 76% of people evidence some sort of bias towards women in the workplace (Pham, 2016), and a 2018 report on women in the workplace found that women are at a disadvantage when it comes to being hired (Thomas et al., 2018). Women experience job discrimination not simply by virtue of being perceived in line with traditional gender stereotypes but also as a result of having children, a phenomenon known as the motherhood penalty.

Motherhood has been shown to be one of the strongest factors in predicting future financial struggles in the United States; research has shown that for every additional child a woman has, her income on average will be 4% lower, while additional children actually increase a man's wage (Wade, 2017). This phenomenon, known as the "fatherhood premium," can be explained by the stereotype that men will be the primary breadwinners for their families (Eagly & Wood, 2016; Killewald, 2012). Social role theory (Eagly & Steffen, 1984; Eagly & Wood, 2016) states that social roles support division of labor, leading to the expectation that women will be the primary caretaker in the family, taking on communal traits of being sensitive and cooperative, while men will take on the role of a family's financial provider. Although a number of studies (e.g., Hodges & Budig, 2010) have documented the motherhood penalty and fatherhood premium, the current study is the first to explore whether the same phenomena exist in medicine as well as whether the age of the children affect these biases.

While the fatherhood premium has been shown almost exclusively in studies of salaries, motherhood has been shown to decrease ratings of women's competence. The Stereotype Content Model (SCM) posits that people perceive members of other social and cultural groups through the lenses of warmth and competence (Fiske, 2018). According to this model, groups perceived as cooperative are seen as high in warmth, while those that are seen as high status are perceived as high in competence. Women experience a decrease in perceived competence after having children as they are seen to take on more traditional gender roles, a problem that limits

mothers from gaining equal employment opportunities (Cuddy, Fiske, & Glick, 2004; Heilman & Okimoto, 2008). Cuddy et al. (2004) found that men maintained perceived competence while gaining perceived warmth upon becoming fathers, while women gained perceived warmth but lost perceived competence upon becoming mothers. Similarly, Correll, Benard and Paik (2007) found that compared to women without children, mothers were seen as significantly less competent.

Research suggests that people believe mothers will be less committed to their jobs than childless women, but studies have found conflicting results about how fatherhood affects perceptions of commitment. Heilman and Okimoto (2008) showed that while women, in general, were expected to be less committed to their work than men, parenthood detracted from both women and men's perceived job commitment. Correll et al. (2007) demonstrated a similar bias against mothers, showing that mothers were expected to be less committed to their work than non-mothers by 12.1 percentage points, but, in their study, fathers actually were seen as more committed than their childless male counterparts.

The effects of the motherhood penalty have been investigated in male-dominated, business leadership positions like the head of a marketing department (Correll et al., 2007) and "assistant vice president (AVP) of financial affairs" (Heilman & Okimoto, 2008). Less well understood is how gender might affect perceptions of parents in other fields. While some fields (e.g., teaching, social work) have long been dominated by women (Labor Force Statistics from the Current Population Survey, 2018; Women as a percent of total employed in selected occupations, 2011), the demographics of others have shifted more recently. For instance, the percentage of women in medicine has been on the rise since the 1970s, with the percentage of female residents growing from 22% in 1980 to 36% in 1997 (Burrow & Burgess, 2001). In some fields, women are the majority; for instance, women now account for 60% of practicing American pediatricians (Wells, 2015), and a recent article from the American Medical Association reports that women now make up 72.1% of pediatric residents (Murphy, 2019). As pediatrics is both a well-paying, highly respected profession and a job where experience with children, and therefore being a parent, would presumably be an advantage, it seemed like an interesting field in which to explore the motherhood penalty and fatherhood premium.

Studies have also not specifically explored the effects of age of children on the motherhood penalty. Cuddy et al. (2004) indicated parental status by saying that applicants had

recently had a baby, while Correll et al. (2007) described parents as being a coordinator of a PTA thereby suggesting they had at least one non-adult child; Heilman and Okimoto (2008) did not specify the age of the applicant's children at all. Just as additional children have been shown to negatively impact a woman's earnings (Wade, 2017), the age of children may also impact earnings and perceptions of occupational competence. Having more children presumably requires more time to take care of them, and similarly, younger children also require more care, a factor which could affect perceptions of competence and commitment. In addition, being a mother to young children seems likely to trigger the stereotype of warmth, which may then also lead to decreased perceptions of competence according to the Stereotype Content Model (Fiske, 2018). The purpose of the present study, therefore, was to investigate the effects of the age of children on the motherhood penalty and fatherhood premium? in pediatricians.

The central hypotheses of the study explore the yet-to-be-tested idea that having younger children will exacerbate the motherhood penalty even in a less masculine area of work. Specifically, it was predicted that: 1) Compared to childless women and mothers with college-aged children, mothers with elementary school-aged children will be rated as A) warmer but B) less competent C) less committed to their jobs, and D) will be less likely to be selected by potential patients. 2) Compared to childless men and fathers with college-aged children, fathers with elementary school-aged children will be rated as A) warmer B) equally competent C) equally committed to their jobs, and D) equally likely to be selected by potential patients. In addition, a third hypothesis tested the prediction that: 3) Compared to mothers, fathers will be rated as A) less warm B) more competent C) more committed to their jobs, and D) more likely to be selected by potential patients.

## **Experiment 1: Methods**

### **Participants**

Participants for this study were recruited using Amazon Mechanical Turk (mTurk). Using mTurk, "workers" living in the United States were invited to be in a study titled "5 Minute Pediatrician Survey" wherein they would "react to a Facebook post about a pediatrician." Participants were given a link to the survey on Qualtrics, and those who completed the survey were provided a code on the last page to put into mTurk to receive compensation (\$0.35).

### **Procedure**

Prior to data collection, the study was reviewed and approved by an IRB. The study used an experimental method in which interested workers on mTurk were given a link to the consent form and survey, which was on Qualtrics. Participants were then assigned to view one of six versions of a recommendation for a male or female pediatrician and then were asked to rate his/her competence, warmth, job commitment, and their willingness to bring their child to see him/her. Participants then answered a series of demographic questions.

### **Experimental Stimuli**

Participants read the following statement: “Imagine that you move to a new town and are looking for a pediatrician for your kids. You post on Facebook looking for some local recommendations and get this one.” Participants were then randomly assigned to see one of six versions of the recommendation, which were identical except for the gender of the doctor (as indicated by his/her name, “Michael” or “Michelle”) and the doctor’s parental status (whether he/she was described as having no kids, two kids in elementary school, or two kids in college).

### **Dependent Measures**

After reading their assigned description of the pediatrician, the participants’ perceptions of the pediatrician’s warmth and competence were determined by asking them to rate how well they felt a series of adjectives described Dr. Simpson on a 6-point bipolar scale (Cuddy et al., 2004). After rating the pediatrician’s warmth and competence, participants completed the job commitment scale (Heilman & Okimoto, 2008). In addition to testing the pediatrician’s perceived warmth, competence and commitment, a single Likert-type item measure asked participants to rate the likelihood they would take a child to visit the doctor if he/she was local.

## **Experiment 1: Results**

### **Warmth**

Parental status had a significant effect on the perceived warmth of the female pediatrician,  $F(2, 146) = 6.24, p < .01$ . The doctor described as a mother of elementary school-age children was rated significantly warmer than the childless female pediatrician.

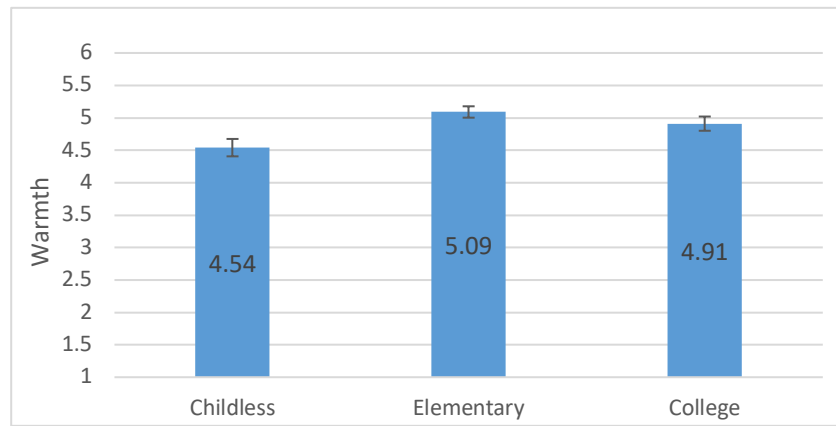


Figure 1. The Effect of Parental Status on Perceptions of a Female Pediatrician's Warmth

For participants who saw a male pediatrician, the difference in warmth ratings as caused by parental status approached significance,  $F(2, 148) = 2.43, p = .09$ .

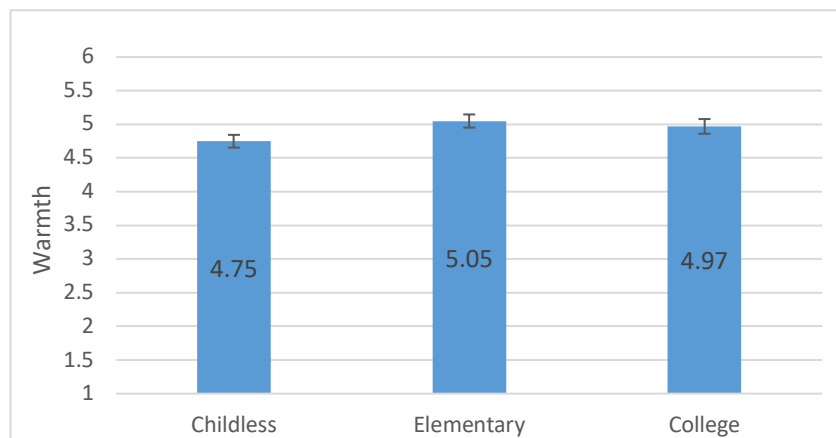


Figure 2. The Effect of Parental Status on Perceptions of a Male Pediatrician's Warmth

## Competence

Contrary to the hypotheses, parental status did not have a significant effect on the perceived competence of the female pediatrician,  $F(2, 146) = 1.12, p = .33$ . On average, the childless female pediatrician was given a competence rating of 5.00, while the doctor with children in elementary school was given a rating of 5.17 and the doctor with children in college was given a rating of 4.93.

Similarly, perceptions of a male pediatrician's competence were not affected by parental status,  $F(2, 148) = 0.25, p = .78$ . The childless male doctor received an average competence

rating of 4.96, while the male doctor with elementary-aged children or children in college had average competence ratings of 5.00 and 5.06, respectively.

### Commitment

Parental status also did not have a significant effect on the female pediatrician's perceived commitment,  $F(2, 146) = 1.92, p = .15$ . The female pediatrician described as childless had an average commitment rating of 5.03, the female pediatrician described as being a mother to two kids in elementary school had an average of 5.01, and the female pediatrician as a mother of two kids in college had an average of 4.76.

The effect of parental status on perceived commitment was also not found to be significant for a male pediatrician,  $F(2, 148) = 1.68, p = .19$ . For a male pediatrician, the average competence ratings were as follows: 5.09 for the childless doctor, 4.82 for the doctor with two children in elementary school, and 4.93 for the doctor with two children in college.

### Likelihood to Visit the Doctor

Parental status had a highly significant effect on participants' likelihood of visiting the female pediatrician,  $F(2, 108) = 7.15, p < .01$ . Participants were significantly less likely to want to visit the childless female pediatrician than the female pediatrician with elementary-aged children but moreover, participants were also slightly less likely to want to visit the pediatrician with children in college than the female pediatrician with elementary-aged children shown in Figure 3.

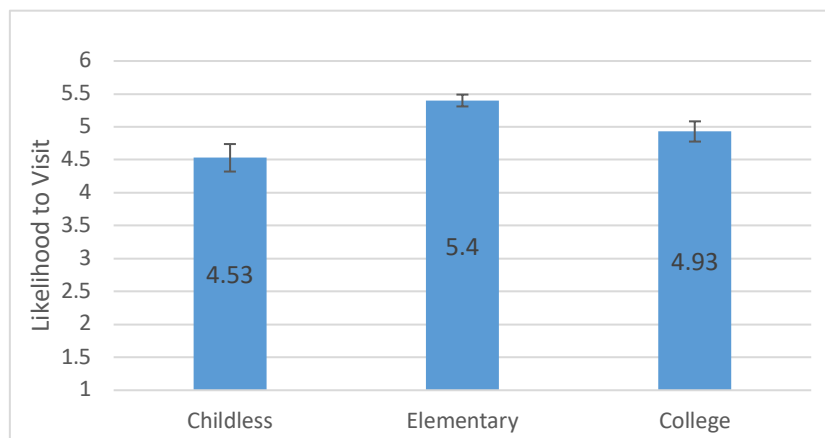


Figure 3. The Effect of Parental Status on Likelihood to Visit a Female Pediatrician

For the male pediatrician, the difference in participants' likelihood of visiting the doctor was also affected by parental status,  $F(2, 116) = 5.33, p < .01$ . The participants who saw the childless male pediatrician reported a likelihood of visiting the doctor that was significantly lower than the ratings for both doctor with elementary-aged children and the doctor with children in college as shown in Figure 4.

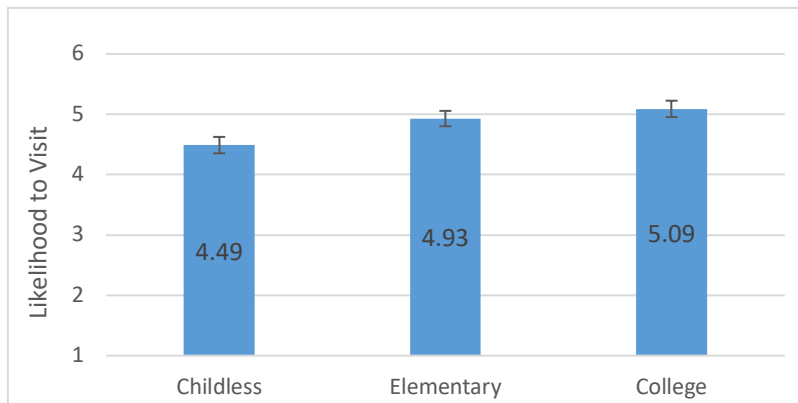


Figure 4. The Effect of Parental Status on Likelihood to Visit a Male Pediatrician

### Differences between Mothers and Fathers

Contrary to the third hypothesis, the results of the t-tests used to analyze differences between mothers and fathers revealed no significant differences. For warmth, the mothers received an average rating of 5.00 while father received an average rating of 5.01,  $t(195) = -0.15, p = .88$ . The ratings for competence,  $M = 5.05$  for mothers and  $M = 5.03$  for fathers, were also statistically equivalent,  $t(195) = 0.18, p = .86$ . Likewise, mothers received an average commitment rating of 4.88 while fathers received an average commitment rating of 4.85,  $t(195) = 0.32, p = .75$ . Finally, the difference in the ratings for likelihood to visit between the conditions where the pediatrician was a mother ( $M = 5.15$ ), and the conditions where the pediatrician was a father ( $M = 5.00$ ), was also negligible,  $t(151) = 1.10, p = .28$ .

## Discussion

### The Effect of Parental Status on Perceived Warmth

Female pediatricians described as having children, regardless of the age of their children, received higher warmth ratings than the female doctor described as childless. As hypothesized, the pediatrician described as a mother with elementary-age children was rated as warmer than the



childless female pediatrician. This difference was expected because previous studies (e.g., Cuddy et al., 2004) have consistently showed that mothers received higher warmth ratings than their childless female counterparts.

However, contrary to the prediction that the pediatrician described as the mother of college-aged children would be rated as less warm than a pediatrician described as the mother of elementary-age children, the two's warmth ratings were equivalent, and the mother of college aged children was rated as marginally warmer than the childless woman. It may be that any mother, regardless of the age of her children, aligns with the societal expectations that women possess communal qualities (Heilman & Okimoto, 2007).

For the male pediatrician, the father with elementary school-aged children was rated as marginally warmer than the childless doctor. While the differences in warmth ratings for the male pediatrician follow the same general pattern as seen in the female pediatrician, the difference between averages in warmth ratings seen for the male pediatrician (.30) is smaller than that of the female pediatricians (.55). It may be that even though people prefer a male pediatrician to have children, because men do not have as much of an association with communal traits when compared to women, parental status has less of an effect on perceived warmth on both ends of the spectrum for men.

### **The Effect of Parental Status on Perceived Competence**

Contrary to the hypotheses, parental status did not diminish perceptions of the female pediatricians' competence. While previous studies (Correll et al., 2007; Cuddy et al., 2004) have shown that mothers suffer a penalty in terms of competence, these earlier studies focused on jobs in agentic fields such as business management. Given that pediatricians work with children, it makes sense that the experience gained by personally having children, especially for mothers, given that they are traditionally expected to be the primary caretaker of their children (Eagly & Steffen, 1984; Eagly & Wood, 2016), would be valued.

As hypothesized, parental status did not affect the competence ratings of the male pediatrician. This finding is not surprising given previous research that showed that men retained perceived competence upon becoming fathers (Cuddy et al., 2004). Because fathers are not traditionally perceived as the parent who takes care of the children ((Eagly & Steffen, 1984; Eagly & Wood, 2016), it is understandable that their perceived competence is not affected by their parental status.

### **The Effect of Parental Status on Commitment**

Similar to the effects observed for perceived competence, parental status also did not affect the perceived commitment of the female pediatricians. The communal nature of the field may again explain the difference. In addition, this study also differed from previous research that found that mothers were expected to be significantly less committed than non-mothers (e.g., Correll et al., 2007) in that while previous studies on this topic asked participants to imagine themselves as an employer trying to decide whether to hire the person described in the stimulus, this study provides a different perspective of asking participants to rate the doctor's commitment in a situation where they were ultimately choosing a doctor for their own child. The responsibilities associated with being a mother that explain the difference in commitment ratings seen in past research may not interfere with the patient-doctor relationship to the same degree as they might with an employer's relationship with an employee.

As predicted, parental status did not have a significant effect on perceptions of the male pediatrician's commitment. Past studies have yielded conflicting findings in terms of male commitment ratings; for instance, one study finding that childless men were seen as the most committed (Heilman & Okimoto, 2008), while another found that fathers were seen as more committed than childless men (Correll et al., 2007). The lack of an effect observed in this experiment for a male pediatrician may be interpreted in the same way as for the female pediatrician, in that participants in this study may have used factors other than parental status to evaluate commitment due to the unique design that asked participants to rate the doctor from a potential patient's perspective rather than a potential employer's perspective.

### **The Effect of Parental Status on Likelihood to Visit**

As interesting as the differences in perceived warmth, competence and commitment are, much of their importance comes from how perceptions of these three traits combine to influence the likelihood that a participant would actually visit the doctor described in the recommendation. For the female pediatrician, it was found that participants who saw the version of the stimulus in which the doctor was described as having children in elementary school gave higher likelihood to visit ratings than those of participants who saw the childless doctor. The difference between the mother with elementary aged-children and the mother with college-aged children also approached significance. Not surprisingly, participants who viewed the profile of the female pediatrician with elementary age-children gave the highest ratings for their likelihood to visit the

doctor, and this finding aligns with the high warmth ratings seen in this same condition. The doctor described as a father of elementary-aged children also received the highest rating for likelihood to visit when compared to the two other male pediatricians, and participants who saw the male pediatrician with college-aged children also gave higher ratings for likelihood to visit than those who saw the childless male pediatrician. For both the female and male pediatrician, people may simply prefer to see a pediatrician who has children of their own; parenthood may be seen to provide additional experience in terms of caring for children's health. Additionally, research illustrates that people like others who are similar to them (Seidman, 2018), and parents may prefer other doctors who are parents simply because they are more similar to them.

### **Differences between Mothers and Fathers**

Contrary to the hypotheses, no significant differences were found between perceptions of the warmth, competence, commitment and likelihood to visit the pediatricians who were mothers and the pediatricians who were fathers. It may be that the inherently warm nature of a job that involves taking care of children results in such high ratings of perceived warmth that factors like gender are not able to have a noticeable effect.

The lack of a motherhood penalty in terms of competence and commitment ratings is one of most striking findings of the present study. Even though over a decade has passed since the seminal studies on this topic (e.g., Heilman & Okimoto, 2008), were conducted, it seems unlikely that gender bias in the workplace has evaporated. The most likely explanation lies in the type of job studied; not only is pediatrics a female-dominated field, but it also involves communal traits due to its association with children and taking care of people. Interestingly, while no motherhood penalty was found in pediatrics, no motherhood premium was found either, which leads one to wonder whether such a phenomenon exists in any profession.

Arguably the most interesting extension to this study, however, would be an additional experiment that tests the effects of parental status and gender on the same variables, with the only change being that the doctor is in a male-dominated specialty like orthopedics.

While 72.1% of pediatric residents are female, 84.6% of orthopedic residents are male. Moreover, the field of orthopedics lacks the association with communal traits seen in a field that involves working with children, so it seemed like the perfect medical specialty in which to continue this exploration of the motherhood penalty – or lack thereof. This extension would enable the research to tease out whether the results of this study are likely a result of studying

medicine as opposed to a field like business or, alternatively, to the saturation of the field by women. This was the goal of Experiment 2.

## **Experiment 2**

The second experiment tested the same hypotheses, specifically that 1) Compared to childless women and mothers with college-aged children, mothers with elementary school-aged children will be rated as A) warmer but B) less competent C) less committed to their jobs, and D) will be less likely to be selected by potential patients. 2) Compared to childless men and fathers with college-aged children, fathers with elementary school-aged children will be rated as A) warmer B) equally competent C) equally committed to their jobs, and D) equally likely to be selected by potential patients. In addition, a third hypothesis tested the prediction that: 3) Compared to mothers, fathers will be rated as A) less warm B) more competent C) more committed to their jobs, and D) more likely to be selected by potential patients.

## **Method**

Experiment 2 used the same method as Experiment 1 except that the stimulus and questions were changed to refer to an orthopedist.

## **Results**

### **Warmth**

As in Experiment 1, the expected interaction between gender and parental status was not significant. Parental status again had a significant effect on warmth ratings,  $F(2, 361) = 6.09, p < .01$ ; the orthopedist with college-aged children was rated as significantly warmer than the childless orthopedist. These results can be seen in Figure 5.

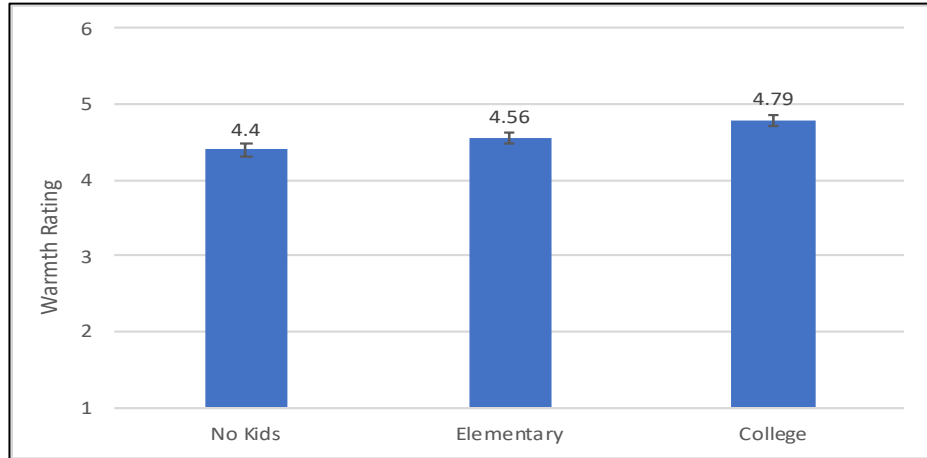


Figure 5. The Effect of Parental Status on Perceptions of an Orthopedist's Warmth.

### Competence

The expected interaction between parental status and gender was also insignificant for competence, however, parental status also had a significant effect on the competence ratings of the orthopedist,  $F(2, 361) = 5.26, p < .01$ . The childless orthopedist was rated as significantly more competent than the orthopedist with children in elementary school (Figure 6).

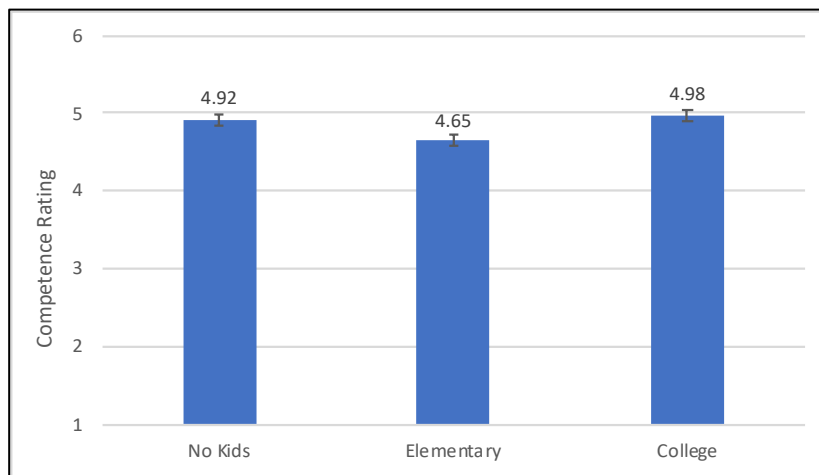


Figure 6. The Effect of Parental Status on Perceptions of an Orthopedist's Competence.

## Commitment

Once again, there was no significant interaction found between physician parental status and gender. There was a significant main effect for parental status however, as the childless orthopedist was rated as significantly more committed than both of the orthopedists with children,  $F(2, 361) = 17.52, p < .01$ . These findings are depicted in Figure 7.

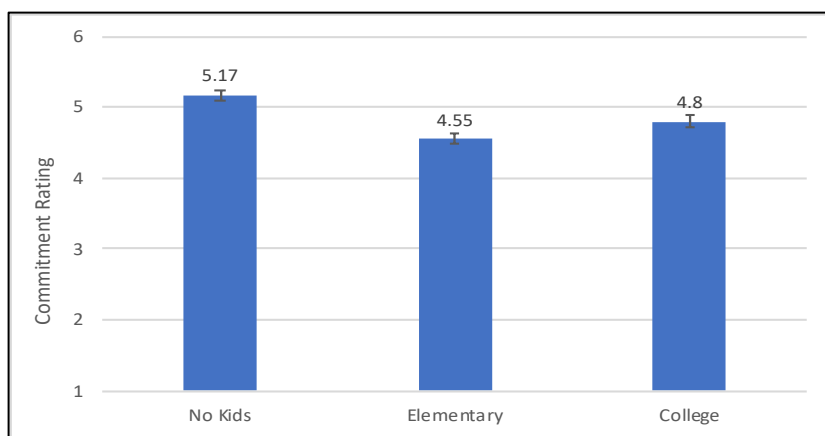


Figure 7. The Effect of Parental Status on Perceptions of an Orthopedist's Commitment.

## Likelihood to Visit

As with the previous dependent variables, the interaction between gender and parental status was not significant. The effect of parental status on the participants' likelihood to visit the doctor was significant,  $F(2, 361) = 0.17, p = .85$ , as shown in Figure 8.

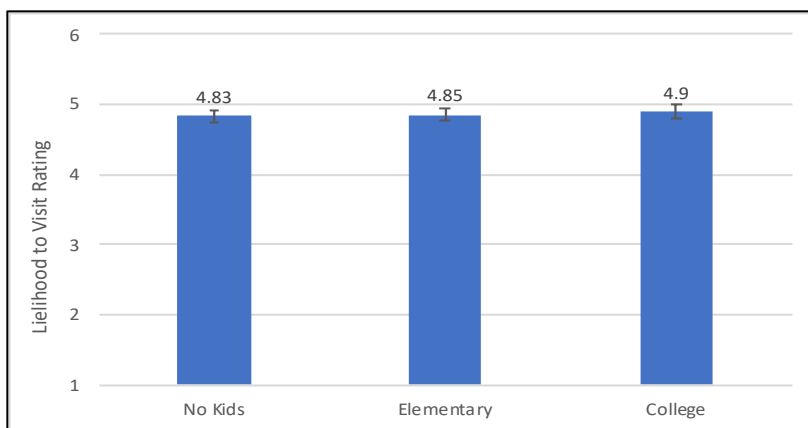


Figure 8. The Effect of Parental Status on Likelihood to Visit an Orthopedist.

## **General Discussion**

Although the results were consistent with those of the first experiment in regard to the lack of a significant interaction between parental status and gender of the orthopedist, the effects of children on perceptions of orthopedists were almost opposite of their effects on pediatricians. While the orthopedist with college-aged children was seen as warmer than the childless orthopedist, the effect size was smaller than on pediatricians. Contrary to the pediatrician experiment, parental status had no effect on likelihood to visit the orthopedist.

On the other hand, parental status did have a significant effect on competence and commitment. However, the effect of having children on both these variables was negative. These findings suggest that having children may benefit both men and women in communal professions and/or professions involving children. Additionally, having children may diminish perceptions of competence in commitment in certain, male-dominated jobs.

## **Limitations and Further Study**

While the results of this study suggest that the motherhood penalty may not be seen in the field of pediatrics, further research on the effects of the motherhood penalty in other female-dominated and communal fields is necessary to make generalizations about whether a motherhood penalty exists in these types of fields. Additionally, future experiments that test the effects of the motherhood penalty in fields that are male dominated but involve working with children, like school administration, would also be an interesting addition to this field of research.

## **Conclusion**

This study provides evidence that the motherhood penalty may only exist in certain fields. While the gender of the doctor did not affect his/her perceived warmth, competence, commitment or likelihood to visit, being a parent, especially to younger children, increased warmth ratings and the likelihood of visiting both the male and female pediatrician indicating a sort of “parent premium”. While further research is necessary to confirm these findings, this study fills an important gap in our understanding of the motherhood penalty by suggesting that in professions aligned with communal traits, women may not suffer as a result of having children.

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## Problem

- While 56.8% of American women work outside the home (DeWolf, 2017), 76% of people exhibit bias toward women who work (Pham, 2016).
- Having children decreases women's earnings (Wade, 2017).
- While women experience a "motherhood penalty," men experience a "fatherhood premium," thought to be due to the belief that they will be the primary breadwinners for their families (Killewald, 2012).
- Although previous studies have revealed a motherhood penalty in male-dominated, managerial fields, no studies were found that looked at the medical field. Greater numbers of women are now graduating medical school than men (Searing, 2019), although they tend to pursue different specialties as shown in Figures 1 and 2.
- In addition, past research has yet to explore the effect of age of children on perceptions of mothers and fathers.
- The purpose of these experiments was to look at the effect of gender and parental status/age of children on perceptions of and likelihood to visit doctors in female and male-dominated specialties.

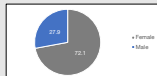


Figure 1. Percentage of Pediatric Residents by Gender (Murphy, 2019)

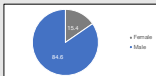


Figure 2. Percentage of Orthopedic Residents by Gender (Murphy, 2019)

## Literature Review

### Warmth and Competence: The Stereotype Content Model (Plake, 2018)

- Women gained perceived warmth while losing perceived competence upon becoming mothers (Heilman & Okimoto, 2008; Cuddy et al., 2004).
- Men maintained perceived competence while gaining perceived warmth upon becoming fathers (Cuddy et al., 2004).
- Compared to women without children, mothers were seen as significantly less competent (Correll, Benard, & Paik, 2007).

### Commitment

- People believe mothers will be less committed to their jobs than childless women (Heilman & Okimoto, 2008).
- While Heilman and Okimoto (2008) found that childless men were expected to be the most committed, Correll et al. (2007) found that fathers were seen as more committed than their childless male counterparts.

### Research Questions

- Would younger children exact a greater penalty on mothers than grown children?
- Would women enjoy a premium in a field where experience with children and other communal traits would be an advantage?

## Hypotheses

- Compared to childless women and mothers with college-aged children, mothers with elementary school-aged children will be rated as A) warmer but B) less competent, C) less committed to their jobs, and D) will be less likely to be selected by potential patients.
- Compared to childless men and fathers with college-aged children, fathers with elementary school-aged children will be rated as A) warmer B) equally competent C) equally committed to their jobs, and D) equally likely to be selected by potential patients.

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# Parenthood: Penalty or Premium?

## The Effect of Parental Status and Gender on Perceptions of Doctors

## Results and Discussion

### Experiment 1: Pediatrician

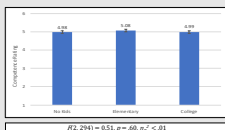


Figure 3. The Effect of Parental Status on Perceptions of a Pediatrician's Competence.

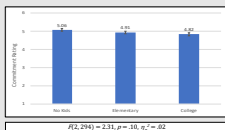


Figure 5. The Effect of Parental Status on Perceptions of a Pediatrician's Commitment.

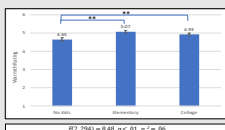


Figure 7. The Effect of Parental Status on Perceptions of a Pediatrician's Warmth.

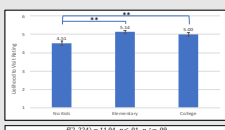


Figure 9. The Effect of Parental Status on Predicted Likelihood to Visit a Pediatrician.

### Perceptions of Competence

- While parental status did not have a significant effect on competence for the pediatrician (Figure 3), the childless orthopedist was rated as significantly more competent than the orthopedist with children in elementary school (Figure 4).
- The gender of the doctor did not affect perceptions of competence (pediatrician:  $p = .79$ ; orthopedist:  $p = .50$ ).
- The expected interactions between physician gender and parental status were also insignificant (pediatrician:  $p = .37$ ; orthopedist:  $p = .80$ ).

### Perceptions of Commitment

- Parental status did not have a significant effect on perceptions of commitment for the pediatrician (Figure 5), however, the childless orthopedist was rated as significantly more committed than orthopedists with children (Figure 6).
- The gender of the doctor once again had no effect on perceptions of warmth (pediatrician:  $p = .99$ ; orthopedist:  $p = .58$ ).
- No interactions were found between gender and parental status (pediatrician:  $p = .32$ ; orthopedist:  $p = .40$ ).

### Perceptions of Warmth

- Pediatricians who were parents were perceived as warmer than the childless pediatricians (Figure 7), while only the orthopedist with college-aged children was seen as warmer than the childless orthopedist (Figure 8).
- The gender of the doctor had no effect on perceptions of warmth (pediatrician:  $p = .37$ ; orthopedist:  $p = .58$ ).
- Additionally, the expected interactions between physician gender and parental status were insignificant (pediatrician:  $p = .48$ ; orthopedist:  $p = .20$ ).

### Likelihood to Visit

- Participants in the first experiment were significantly more likely to say they would visit the pediatricians with children (Figure 9); however, parental status did not have a significant effect on likelihood to visit the orthopedist (Figure 10).
- The likelihood of visiting either doctor was not affected by gender (pediatrician:  $p = .34$ ; orthopedist:  $p = .82$ ).
- The interaction between gender and parental status was insignificant (pediatrician:  $p = .09$ ; orthopedist:  $p = .28$ ).

### Experiment 2: Orthopedist

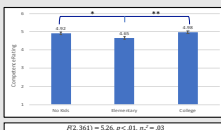


Figure 4. The Effect of Parental Status on Perceptions of an Orthopedist's Competence.

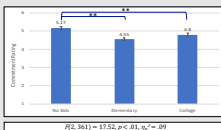


Figure 6. The Effect of Parental Status on Perceptions of an Orthopedist's Commitment.

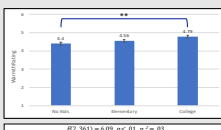


Figure 8. The Effect of Parental Status on Perceptions of an Orthopedist's Warmth.

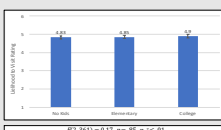


Figure 10. The Effect of Parental Status on Predicted Likelihood to Visit an Orthopedist.

## Methods

### Research Design

Gender	Parental Status		
	Childless Female Doctor	Female Doctor with Kids in Elementary School	Female Doctor with Kids in College
	Childless Male Doctor	Male Doctor with Kids in Elementary School	Male Doctor with Kids in College

### Procedures

- A power analysis determined the need for a sample size of 300.
- Participants were recruited through Amazon Mechanical Turk and given a link to the survey, which was created on Qualtrics.
- Attention checks were included to weed out people who were not concentrating on the task.
- Qualtrics was set up to randomly assign participants to one of the six conditions, and to keep them on the page with the experimental stimuli for a minimum of 20 seconds.
- The order of the items on the three scales was randomized to prevent order effects.
- Manipulation checks were included to ensure that participants noticed the doctor's sex and parental status; people who failed either of the manipulation checks were excluded from the data analysis.

### Experimental Stimuli

#### Experiment 1

Imagine that you move to a new town and are looking for a pediatrician for your kids. You post on Facebook looking for some local recommendations and get this one:

We see Dr. Michelle (Michael) Simpson. She's been in practice for about 15 years. She's good with our kids and doesn't have kids of her own (has two kids of her own in elementary school/has two kids of her own in college).

#### Experiment 2

Imagine that you move to a new town and are looking for an orthopedist for your kids. You post on Facebook looking for some local recommendations and get this one:

We see Dr. Michelle (Michael) Simpson. She's been in practice for about 15 years. Dr. Simpson lives up on Spruce St. with her husband - they don't have kids (they have two kids in elementary school/they have two kids in college).

### Dependent Measures

Scale Name	Warmth	Competence	Commitment	Likelihood to Visit
Source	Cuddy et al., 2004	Cuddy et al., 2004	Heilman & Okimoto, 2008	Created for this study
Number of Items	4 adjectives	4 adjectives	3 statements	1 question
Cronbach's Alpha	.88	.86	.82	NA

### Demographics

		Experiment 1 (N = 300)		Experiment 2 (N = 307)	
		Number	Percent (%)	Number	Percent (%)
Gender	Male	128	42.7	132	41.4
	Female	172	57.3	175	57.5
Race	White	258	76.0	263	77.1
	Black or African American	19	6.3	25	6.8
	Asian or Asian American	27	9.0	30	8.2
	Hispanic	13	4.3	18	4.9
Multicultural	Multicultural	9	3.0	7	1.9
	Other	4	1.3	4	1.3
	Parent	205	68.3	212	57.8
Parental Status	Childless	95	31.7	105	42.2

## Limitations and Further Study

- Results can only be generalized to pediatricians and orthopedists; replicate on:
  - Other types of doctors
  - Other female-dominated professions, especially those not as strongly linked with communal traits
- Test other recommendation formats:
  - Formats outside of Facebook style
  - Recommendations where the participant "knows" the recommender

## Implications

- Having children may benefit both men and women in communal professions and/or professions involving children.
- Additionally, having children may diminish perceptions of competence and commitment in certain, male-dominated and/or agentic jobs.
  - For professions involving children, mentioning that you are a parent may be beneficial in terms of employment opportunities.
  - It may be best for those interested in entering a male-dominated medical specialty to refrain from alluding to having children.