

Effects of Applicant Pregnancy on Hiring Decisions and Interview Ratings

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Abstract The effects of pregnancy on hiring decisions during employment interviews are examined in a United States sample of 210 undergraduate business school students at a Midwestern university. A pregnant applicant was compared to a non-pregnant applicant with identical credentials and interview performance to explore any differences in interviewer ratings of qualifications and hiring by having participants view videotaped interviews. Results show that in spite of being viewed as equally qualified and well-suited for the job, the pregnant applicant received significantly lower hiring recommendation ratings. The pregnant applicant was also rated as more likely to need time off, miss work and quit compared to the non-pregnant applicant, indicating a concern about absenteeism regarding the pregnant applicant.

Keywords Employment interviews · Pregnancy · Hiring issues · Discrimination

Introduction

Of the more than 68 million women in today's U.S. workforce ("Women at Work", 2004), estimates indicate that three out of four are likely to become pregnant at least once while they are employed, and a sizeable proportion may be pregnant while applying for employment (Cleveland et al. 2000). In addition, the employment interview is one of the most frequently used techniques to select individuals for employment yet we know very little regarding the effect of pregnancy on interviewers' hiring recommendations. Therefore, the present study exam-

ines the effect of pregnancy on the applicant's ability to obtain employment. Using video technology, interviewers view identical interview performances where only the opening and closing scenes differ by either showing a pregnant applicant or a non-pregnant applicant in order to explore any differences in interviewer ratings of qualifications and hiring recommendations.

Based on recent facts from the legal arena regarding pregnancy issues for women in the workplace, there is evidence of pregnancy discrimination occurring that calls for our study and a closer examination of the potential causes of such effects. According to the Federal Equal Employment Opportunity Commission (EEOC), pregnancy discrimination claims are the fastest growing type of employment discrimination charge, showing a 39% increase since 1992, growing faster than both sexual harassment and sex discrimination claims (Armour 2005; "The Pregnancy Discrimination Act 25 Years Later", 2006). In fact, with regard to pregnancy discrimination during the hiring process, several major companies have settled hiring discrimination charges including Wal-Mart and Dillard's Department Store ("The Pregnancy Discrimination Act 25 Years Later", 2006). Furthermore, in 2005 alone, the EEOC resolved 4,321 pregnancy discrimination charges out of a total 4,449 ("Pregnancy Discrimination", 2006).

The Pregnancy Discrimination Act (1978) mandates that pregnancy be treated like a short term disability and states that pregnant employees must be treated the same for all employment related purposes as other applicants or employees with similar abilities or limitations. With regard to similar issues, prior research has shown differential hiring recommendations for applicants in a wheelchair or those who are obese during the selection process (Hebl and Kleck 2002). Thus, the potential for any condition, whether it is permanent or temporary to overshadow one's qualifications

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and likelihood of a fair evaluation has very real consequences for the person with that condition who is seeking employment. The potential discrimination against a woman due to pregnancy may also have larger implications for women in the workplace beyond just the selection process. For example, if a woman is denied a job opportunity because of pregnancy, this could have long term effects on her career progression and pay. In her book, *Why So Slow: The Advancement of Women*, Valian (1998) notes, “It is unfair to neglect even minor instances of group-based bias, because they add up to major inequalities” or what has been coined “accumulation of disadvantage.” Although pregnancy is one potential disadvantage faced by women in the workplace, this study focuses on the effect of an applicant’s pregnancy during the selection process. More specifically, the purpose of the current study is to empirically investigate whether an applicant’s pregnancy may affect initial hiring decisions and if so, the possible reasons why pregnancy may have such an effect.

Pregnancy in the Workplace

There has been very little research conducted specifically on the effect of an applicant’s pregnancy during the selection process. Before discussing the limited research that has been conducted specifically on applicant pregnancy during selection, it is important to examine the research on pregnancy in the workplace in general as it provides a basis for potential explanations we explore in our study. From an employment standpoint, a pregnant employee is perceived and often treated differently compared to before she was pregnant or compared to her non-pregnant counterparts. For example, pregnant women are often viewed as “overly emotional, often irrational, physically limited and less committed to their jobs” (Halpert et al. 1993, p. 655). People may question their value and dependability as employees as well as their dedication to work. Pregnant women report feeling that their skills, abilities, and work were not seen as positively during their pregnancy and that they felt extra pressure to prove their organizational worth (Halpert and Hickman Burg 1997). These negative feelings about pregnant employees have been found to sometimes lead to lower performance ratings (Halpert et al. 1993). Others, however, feel that a pregnancy can have a positive and humanizing effect on the work place (Franco et al. 1983).

Pregnancy and the Selection Process

Based on the prior research reviewed above, it is conceivable that the pregnancy would not only be a barrier for a woman in her current job but also for a woman trying to attain a new job. One study (Kazama and Hebl 2003) looked at discrimination against pregnant job applicants who went to organizations to inquire about job opportuni-

ties. There was no evidence of formal discrimination (i.e. “explicit behaviors that are legally sanctioned to prohibit their display”). Pregnant applicants did, however, experience interpersonal discrimination, such as shortened interactions, frowning, nervousness, brow furrowing, staring, and rudeness from the manager. This study only looked at the application process and did not include a measure of hiring. Kazama and Hebl acknowledge that it is possible that a pregnant job candidate may make it successfully through the application process, but experience discrimination during the interview and hiring process. The focus of our research is on the interview and the hiring process.

Similarly, DeNicolis Bragger et al. (2002) examined the effects of using structured interviews to reduce bias against a pregnant job applicant. Participants viewed mock videotaped interviews and were asked to make a hiring decision and a salary recommendation. They found that pregnancy did affect hiring decisions; however, pregnancy only seemed to be a disadvantage when unstructured interviews were used. When structured interviews were used, there was no difference in the ratings. The authors speculate that bias was reduced because the structured interview format forced the interviewer to focus on job related factors, although they did not directly examine this notion.

Focusing solely on structured interviews, the current study will also examine potential bias in the hiring process; however, there are several key differences between our study and the DeNicolis Bragger et al. (2002) study. First, the actual hiring decision is conceptualized differently. DeNicolis Bragger et al. asked participants “On a five-point scale, how qualified is the individual to be hired?” The current study will explore ratings of qualifications and ratings of hireability separately as it is possible that a pregnant job applicant may be viewed as qualified for the position and still not be recommended for hire. Kacmar et al. (1994) found just such an effect in an employment interview study. They found that Black applicants’ high ratings did not translate into more hire decisions. One reason why this may occur is that decision makers have a difficult time weighting and combining information they view as relevant to their decisions (Tversky and Kahneman 1974). In fact, Hitt and Barr (1989) in a policy-capturing study found that variables the researchers defined as job-irrelevant variables (e.g., race, sex) were often used in managerial selection decisions and may actually be more important than the job-relevant variables in their study (e.g., education, experience). Furthermore, decision makers are more likely to use a non-compensatory approach when making judgments (Dipboye 1992). In a compensatory model, strengths in one area can compensate for weaknesses in another. However, with non-compensatory decision making, there are no such trade-offs (Dipboye 1992). In fact, it has been found that even one unfavorable bit of

information about a candidate can lead to rejection (Schmitt 1976). While an applicant may be viewed as qualified, there could be a host of other reasons that the hiring manager does not prefer the applicant for hire. In other words, there can often be an evaluation of other information beyond job qualifications that influences one's ultimate evaluation of an applicant. The possibility of an applicant being viewed as qualified and not being recommended for hire simply illustrates the complex nature of hiring decisions and the reason it is necessary to view ratings of qualifications and hiring recommendations separately as in our study.

In addition, participants in the DeNicolis Bragger et al. (2002) study, in line with a highly structured interview approach, were not allowed to make a global assessment of the candidate (as in our study) but instead arrived at their hiring decision by adding up their scores on items that rated the candidates on certain job dimensions. We think it is more likely that interviewers make global assessments in actual employment interview settings and thus believe it is important to examine this approach. Simply put, additional information considered by a decision maker that may not be captured in a more statistical approach (e.g., adding up scores) may lead to different decisions when that information is factored in. Evidence for this outcome comes from the decision-making and selection literature mentioned above regarding weighting of information and non-compensatory models. In addition, most decisions tend to be quasi-rational (i.e., include both intuition and analysis) (Hammond 1996) which is afforded by a global assessment approach but not by a statistical one.

With only two studies to our knowledge that investigate the effect of pregnancy during the selection process, we think it is important to examine these issues further. Given we expect a two-prong outcome, that is, qualifications ratings will not differ but hiring ratings will, the following hypothesis is proposed:

Hypothesis 1

The pregnant applicant will receive significantly lower hiring recommendation ratings compared to the non-pregnant applicant, but there will be no difference in qualifications ratings between the pregnant and non-pregnant applicant.

Check for Consistency Effect

Another relevant issue from the judgment and decision-making literature that is important to examine in our study is the potential for interviewers to display a consistency bias in their judgments. In our study, we tried to simulate an actual selection situation. Because it is likely that in most hiring situations the person conducting the hiring will review information about the candidate prior to the face-to-face

interview, as they will do in our study, it is necessary to see what effect this prior information may have on judgments. In previous research, it has been found that interviewers typically form pre-interview impressions or judgments about the candidate that may be hard to change from this prior information (e.g., a resume or application), (Macan and Dipboye 1990). In fact, there is the possibility that interviewers may feel compelled to remain consistent with these prior judgments of the candidate, particularly if those judgments were made public, even if some additional information about the candidate (i.e., pregnancy) gathered in the interview might change their perceptions. This tendency would demonstrate a consistency bias. Because of the potential for such a consistency effect, we explored some participants' perceptions both before and after the introduction of the manipulated pregnancy condition with other's perceptions only after the manipulation.

Gender and Pregnancy

Gender differences have been found in the occurrence of negative stereotypes and actions taken against pregnant employees. Typically, males have assigned lower performance ratings to a pregnant employee. Males were also more likely than females to report that women should choose their family over their career and to report feeling that organizations should not have to accommodate the needs of a pregnant employee (Halpert et al. 1993). Males also tended to hold more conservative opinions about maternity leave, the impact of pregnancy on a career and legislation regarding pregnancy. They were more likely to openly indicate they would discriminate against a pregnant employee, for example refusing to promote her. Males were not always the ones with the most negative attitudes toward pregnant employees; females reported being less supportive than males in terms of providing workload assistance to a pregnant coworker (Gueutal and Taylor 1991). Finally, there is not always a gender difference. In one study, both male and female participants had more negative impressions of a pregnant manager compared to the non-pregnant manager (Corse 1990). In general, women, younger people, and people who have never supervised a pregnant employee hold more positive perceptions about pregnant employees (Gueutal and Taylor 1991). The majority of the research concerning gender differences with regard to perceptions of pregnancy in the workplace is dated. Given the limited and somewhat mixed finding concerning gender differences, we explored whether males and females gave differing ratings concerning the pregnant applicant.

Potential Reasons for Pregnancy Bias

Despite research that has examined the perceptions of others toward pregnant women in the workplace, little research

sheds light on why negative impressions might exist. Knowing why may aid in finding means of alleviating such occurrences. One explanation may be associated with a pregnant employee having excessive absences. Pregnant women reported that their supervisors were concerned about how their work would be covered during their leave and if they would return to their job after the birth of the baby (Halpert and Hickman Burg 1997). It is likely that this concern is also shared by coworkers who may resent having to carry an extra workload in the absence of the pregnant employee (Gueutal and Taylor 1991).

Another potential explanation is that the stereotype of a pregnant woman does not correspond to the stereotype of a good employee. Role congruity theory (Eagly and Karau 2002) suggests that certain feminine characteristics, such as pregnancy, make the female gender role stereotype particularly salient. The female gender role consists of communal qualities, focused primarily on the welfare of others, such as affectionate, kind, nurturing, gentle, etc. The female gender role is seen as incongruent with the “leader” role, which consists of qualities such as assertive, controlling, confident, forceful, self-sufficient, etc. Because of this incongruence, a pregnant woman may not be seen as a valuable, dedicated, and competent employee. Similar earlier theories state that when the workplace role and the attributes ascribed to an individual are in conflict, there is a perception of lack of fit. This lack of fit increases expectations of failure and decreases expectations of success (Heilman 1983).

DeNicolis Bragger et al. (2002) point out that the cause of the bias against pregnant applicants is still not known. This study adds to previous research in that it attempts to not only address the potential for bias against pregnant job applicants, but also explores possible reasons this bias may be occurring in structured interviews, including absenteeism and gender role stereotyping. The following hypothesis was tested:

Hypothesis 2

The pregnant applicant will receive significantly higher absenteeism, turnover, and feminine stereotype ratings compared to the non-pregnant applicant.

In the present study, we were interested in examining if, all else being equal, pregnant women are recommended for hire less often than non-pregnant women, despite being seen as equally qualified. In addition, we provide a preliminary investigation of reasons why this may be the case, as well as exploring gender differences in ratings. We conducted an employment interview simulation in which participants viewed videotaped interviews of either a pregnant applicant or non-pregnant applicant after reviewing applicant resumes. With the aid of technology, actual interview performances were identical.

Method

Participants

The participants were 210 undergraduate business school students at a Midwestern university who ranged in age from 19 to 50 years with an average age of 24.94 years ($SD=5.68$). Fifty-three percent were female, 75% were Caucasian. The majority did not have children (81.5%). A large portion of the participants had worked with a pregnant woman before (75%). Participants were recruited during class time and were offered extra credit for their participation. Participants were randomly assigned to either the pregnant applicant condition ($n=114$) or non-pregnant applicant condition ($n=96$). Half of the participants made both pre-interview and post-interview ratings and half made only post-interview ratings.

Assuming a potential medium effect size (using Cohen’s convention of .25) and an alpha level of .05, the sample size of 210 produces 80% power to detect an effect if there is one (Faul and Erdfelder 1992).

Design

This study consists of three independent variables: condition of the applicant (visibly pregnant versus not pregnant), sex of the participant (male or female) and number of ratings made by participant (pre-interview and post-interview ratings or just post-interview ratings). This number of ratings manipulation allowed us to check for any consistency effect. Participants who made pre-interview ratings filled out a short questionnaire which consisted of three items. The first item asked “If you had to hire someone without performing an interview would you hire this applicant for the position?” This item was rated on the same 1 to 5 scale as the post-interview hiring decision rating discussed below. The remaining two items were rated from 1 (Strongly Disagree) to 5 (Strongly Agree) and included: “I would evaluate this applicant’s qualifications for this position favorably” and “I feel this candidate is well suited for the job”. When participants made their pre-interview decision they were unaware of the pregnancy status of the applicant. Because by making this pre-rating participants may want to appear consistent over time, even if their perceptions changed after discovering the applicant’s pregnancy, it was necessary to have some participants fill out both pre- and post-interview ratings and some fill out just post-interview ratings so we could examine the potential processes.

Procedure

Participants were told that they were participating in a study examining how interviewers make hiring decisions. Participants reviewed information about a potential job applicant

for the position of computer programmer. The job of computer programmer was chosen because past research has shown it be viewed as equally suitable for both males and females (Macan et al. 1994). Participants were given information describing the job. This job description was based on information from The Department of Labor's Occupational Information Network (O-Net) website (<http://online.onetcenter.org/>), and included information such as a brief company description, general job description, education and experience requirements, job tasks, and work environment. The participants then reviewed a resume that depicted a female applicant who had above average qualifications. The resume was based both on the job description requirements created for this study as well as a review of resumes and interviews with people currently working in the IT field. Half of the participants were asked to indicate if they would recommend this person for hire based on this information alone. After making these pre-interview ratings, participants viewed a video of that applicant being interviewed for the job. The other half of the participants did not make the pre-interview ratings, but simply reviewed the materials described above, watched the interview and then made post-interview ratings.

The variable manipulated in the video was whether the applicant was visibly pregnant or not pregnant. The interviewee was played by a confederate. In the visibly pregnant condition she wore a pregnancy prosthesis that made her appear approximately seven or eight months pregnant. The pregnancy manipulation took place at the beginning and ending of the video. The applicant was shown in full view as she entered for the interview and then again as she exited the room. With the aid of digital computer technology, the actual interview portion of the video was identical across conditions as the applicant was seated behind a table and her abdomen was not visible. Therefore, the videos only differed in whether the applicant appeared pregnant as she entered and exited the interview. The interviewer was played by a male in his forties. He was briefly in view of the camera as he greeted the applicant by shaking hands prior to the start of the interview.

After viewing the video, participants completed a questionnaire that assessed their perceptions of the applicant and their ultimate hiring decision. Finally, participants provided demographic information that included age, race, gender and information concerning how much experience they had interviewing and evaluating others as well as if they had ever had any interview training.

The Interview

The interview consisted of 10 structured interview questions. The answers to the questions were pilot tested to

ensure that the responses were average to above average. Twelve participants were asked to review the proposed interview script and rate it on six items. The primary question of interest asked participants to rate the general level of the applicant's response ranging from 5 (well above average) to 1 (well below average). Participants also rated the interview script regarding the applicant's qualifications, performance in the interview, and likelihood of being hired. The average rating for each question on a one to five scale ranged from 4.04 to 4.33, indicating that the participants perceived each interview question response to be above average. In addition they also perceived the candidate's qualifications, performance in the interview and likelihood of being hired as above average. It was important for the candidate to be perceived as qualified for the job in order to ensure that it was not a lack of qualifications that would potentially disqualify her from the job and therefore confound the actual variable of interest which is the pregnancy.

Dependent Measures

Hiring Recommendation

The hiring decision was made on a five point scale with the following anchors:

- 5—Yes, I would definitely hire this person. This person is an extremely good candidate.
- 4—Yes, I would hire this person with a few reservations.
- 3—I'm not sure if I would hire this person.
- 2—I don't think I would hire this person although I might consider taking a look at some additional information about her.
- 1—No, I would definitely not hire this person. This person is not a good candidate.

Qualification Rating

The qualification rating was a composite variable consisting of three items. Two of the items were rated from 1 (Strongly Disagree) to 5 (Strongly Agree). These items included "I would evaluate this applicant's qualification for this position favorably", and "I feel this candidate would be well suited for the job." The third item was an overall rating, ranging from 1 (Extremely Poor) to 5 (Extremely Good), $\alpha = .83$.

In order to further understand perceptions of the pregnant applicant, as well as to explore possible explanations for a discrepancy in hiring decisions between the pregnant and non-pregnant applicant, many characteristics were assessed using a five point scale that asked participants to indicate how characteristic of the applicant they believed each adjective to be, ranging from 1 (not characteristic) to 5 (very characteristic).

Absenteeism Explanation

The absenteeism rating was a composite variable consisting of two items including, “likely to miss work” and “likely to need time off” ($\alpha=.84$).

Turnover Explanation

A one item turnover rating was assessed using the item “likely to quit.”

Feminine Stereotype Explanation

A composite variable was created called “Female Stereotype” which consisted of four general communal characteristics: Feminine, Affectionate, Gentle, and Nurturing ($\alpha=.80$).

Other Characteristics

A number of other characteristics were examined in the study. These characteristics were offered both to disguise the purpose of the study and also to allow us to further explore other possible explanations for the potential hiring discrimination. Specifically, a general “Good Employee” composite was created and consisted of seven items: demonstrates good work ethic, hard working, self-reliant, successful, self-sufficient, self-confident, and ambitious ($\alpha=.84$). Other individual characteristics included: committed, dependable, competent, mature, healthy, leadership ability, aggressive, verbal communication, ability to supervise, intelligent, and physically limited. In addition to these characteristics, participants were also asked to indicate how well the candidate “Fits with job” on a scale ranging from 1 (low fit) to 5 (high fit).

Results

Check for Consistency Effect

Analyses were first conducted on all dependent variables at the $2 \times 2 \times 2$ level (i.e., condition of the applicant (visibly pregnant versus not pregnant), participant gender, and number of ratings made (pre-post interview ratings or post ratings only)). We found no significant main effects or interactions for the number of ratings variable, indicating no evidence of a consistency effect. Therefore, we collapsed across this variable. All subsequent analyses were conducted using a 2×2 design, including pregnancy condition and participant gender.

Manipulation Checks

As expected, participants perceived the job of computer programmer to be neutrally sex-typed ($M=3.10$, $SD=.50$),

based on a scale ranging from 1 (more suitable for women) to 5 (more suitable for men).

Given that the video of the interview was exactly the same across conditions, we created a composite interview rating to verify that the interview performance was perceived the same across conditions. The interview performance composite consisted of two items. The first item stated “How did the applicant perform during the interview?” This item was rated from 1 (Extremely Poor) to 5 (Extremely Well). The second item, rated from 1 (Strongly Disagree) to 5 (Strongly Agree) stated “Overall, I would evaluate this applicant favorably based on what was said in the interview” ($\alpha=.74$). As expected there were no significant differences in interview performance ratings between the pregnant applicant ($M=3.90$, $SD=.76$) and the non-pregnant applicant ($M=3.80$, $SD=.68$), $F < 1$. In addition, there were no significant findings for the gender main effect or the interaction.

MANOVA Results

A 2×2 between subjects multivariate analysis of variance (MANOVA) was performed on the five dependent variables specifically hypothesized about: hiring recommendation, qualification rating, absenteeism, turnover, and female stereotype rating. Using the Wilks’ criterion, the combined dependent variables were affected by pregnancy condition, $F(5, 202)=48.50$, $p<.001$, $\eta^2=.55$, but not by gender, $F(5, 202)=1.20$, $p>.05$, $\eta^2=.03$ or the interaction between pregnancy condition and gender, $F(5, 202)=.43$, $p>.05$, $\eta^2=.01$. Following are the specific between-subjects ANOVA results pertaining to each individual dependent variable.

Gender Differences

Consistent with the MANOVA results, ANOVA results indicated no significant gender differences across the five main dependent variables. For example, male ($M=3.80$, $SD=.84$) and female participants ($M=3.76$, $SD=.92$), gave similar hiring ratings for the pregnant applicant ($F<1$, ns.).

Further analyses showed that there were a number of variables that resulted in a significant main effect for gender (i.e. differences in male and female participants rating of the applicant regardless of pregnancy condition). As shown in Table 1, female participants gave the applicants significantly higher ratings than the male participants on the following characteristics: competent, mature, healthy, and leadership. For the variable “aggressive”, the male participants rated the applicants significantly higher than the female participants.

Hypothesis 1

Hypothesis 1 stated that the pregnant applicant would receive significantly lower hiring recommendation ratings compared

Table 1 Means, standard deviations and ANOVA results for variables with a gender main effect.

Variable	Female		Male		<i>df</i>	F	<i>p</i>	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Competent	4.37	.64	4.12	.69	1, 206	8.24	.01	.04
Mature	4.52	.63	4.32	.69	1, 206	4.92	.03	.02
Healthy	3.90	.87	3.64	.86	1, 205	5.28	.02	.03
Leadership	3.37	.98	2.98	.98	1, 205	8.07	.01	.04
Aggressive	2.38	.96	2.70	1.04	1, 206	5.47	.02	.03

Ratings were made on a five-point scale (1 = not characteristic, 5 = very characteristic)

to the non-pregnant applicant while there would be no difference in qualification ratings between the pregnant and non-pregnant applicant. The ANOVA results showed that the pregnant applicant ($M=3.62$, $SD=.96$) received significantly lower hiring recommendation ratings compared to the non-pregnant applicant ($M=3.96$, $SD=.74$), $F(1, 206)=7.50$, $p<.01$, $\eta^2=.04$.

With regard to the qualifications rating, the ANOVA showed no significant differences as predicted. The pregnant applicant ($M=3.92$, $SD=.67$) and the non-pregnant applicant ($M=3.91$, $SD=.60$) were seen as equally qualified for the job, $F<1$. In light of these results, it is interesting to note the substantial and statistically significant correlation between hiring rating and the qualifications composite ($r=.66$, $p<.01$). In spite of the strong positive correlation between qualifications and hiring, the pregnant applicant is not recommended for hire even though she is viewed as qualified for the job, providing support for hypothesis 1.

In addition, the pregnant applicant was not rated significantly lower on ratings of job fit, commitment, and dependability. Interestingly, hiring ratings also showed a significant positive relationship with these variables as well ($r=.56$, $p<.01$; $r=.34$, $p<.01$; $r=.24$, $p<.01$, respectively).

Hypothesis 2

Hypothesis 2 stated that the pregnant applicant would receive significantly higher absenteeism and feminine stereotype ratings compared to the non-pregnant applicant. Using the absenteeism composite as the dependent variable, ANOVA results showed that the pregnant applicant ($M=3.64$, $SD=1.16$) received significantly higher absenteeism ratings compared to the non-pregnant applicant ($M=1.67$, $SD=.61$), $F(1, 206)=220.65$, $p<.001$, $\eta^2=.52$. Similarly, using the variable “likely to quit” as the dependent variable to represent turnover, we found that the pregnant applicant ($M=2.39$, $SD=1.23$) was rated as significantly more likely to quit compared to the non-pregnant applicant ($M=1.86$, $SD=.85$), $F(1, 206)=11.83$, $p=.001$, $\eta^2=.05$. In addition, the hiring ratings have a

significant negative relationship with the absenteeism composite ($r=-.33$, $p<.01$) and turnover ($r=-.43$, $p<.01$).

Additional analyses were conducted to explore perceived differences between the pregnant and non-pregnant applicant regarding female stereotyping. Using the female stereotype composite variable, ANOVA results showed that the pregnant applicant ($M=3.58$, $SD=.83$) received a higher stereotypical female rating compared to the non-pregnant applicant ($M=3.11$, $SD=.75$), $F(1, 206)=16.90$, $p<.001$, $\eta^2=.08$. Further, the non-pregnant applicant ($M=1.90$, $SD=.93$) was rated significantly higher on the single characteristic “masculine” compared to the pregnant applicant ($M=1.62$, $SD=.93$), $F(1, 206)=4.72$, $p=.03$, $\eta^2=.02$. These findings provide support for Hypothesis 2.

Examination of Other Possible Explanations and Characteristics

Further analyses were conducted to explore the possible differences between the pregnant and non-pregnant applicant concerning the stereotype of a “good employee.” Using the good employee composite variable, a 2×2 ANOVA showed that there were no differences between the pregnant ($M=4.07$, $SD=.63$) and non-pregnant applicant ($M=4.01$, $SD=.52$) on this variable, $F<1$.

As seen in Table 2, however, additional analyses showed that for a number of the characteristics the pregnant applicant received significantly higher ratings than the non-pregnant applicant. The pregnant applicant was rated higher on: competent, good verbal communication, mature, healthy, able to supervise, leadership, intelligent, and physically limited. It is interesting to note that the pregnant applicant is rated substantially higher on the variable “physically limited”, yet is also perceived to be more healthy and more competent compared to the non-pregnant applicant.

Table 2 Means, standard deviations and ANOVA results for variables with a pregnancy main effect.

Variable	Pregnant		Non-Pregnant		<i>df</i>	F	<i>p</i>	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Competent	4.38	.64	4.09	.68	1, 206	9.87	.001	.05
Good verbal communication	4.13	.81	3.91	.74	1, 206	3.92	.05	.02
Mature	4.51	.64	4.32	.68	1, 206	4.20	.04	.02
Healthy	4.04	.80	3.50	.87	1, 205	21.71	.001	.10
Able to supervise	3.51	.96	3.15	1.00	1, 204	6.99	.01	.03
Leadership	3.33	.97	3.02	1.00	1, 205	5.30	.02	.03
Intelligent	4.39	.63	4.20	.68	1, 206	4.08	.05	.02
Physically limited	3.33	1.34	1.67	.95	1, 205	100.80	.001	.33

Ratings were made on a five-point scale (1 = not characteristic, 5 = very characteristic)

Discussion

The results of this study suggest that in spite of being viewed as equally qualified, committed, dependable, and a fit for the position, the pregnant applicant received significantly lower hiring recommendations from both male and female raters. Given that the only difference across the two conditions was the pregnancy, it is clear that pregnancy is a potential liability for a woman seeking employment, even in spite of positive impressions about her qualifications and interview performance. From a legal perspective, the Pregnancy Discrimination Act (1978) mandates that pregnancy be treated like a short term disability and states that pregnant employees must be treated the same for all employment related purposes as other applicants or employees with similar abilities or limitations. Given that pregnancy is a protected condition, it is important to consider the implication of these effects, as any differences in mean ratings can have practical implications as our study shows for the hiring of applicants who are visibly pregnant. Thus, while the mean rating of hiring recommendations for the pregnant applicant in our study is in the above average range, we suspect this result is because we manipulated the pregnant applicant in our study to have above average qualifications and interview performance. Future research should examine these effects for applicants with more mixed qualifications and interview performances as we expect larger differences to be found.

One past study (DeNicolis Bragger et al. 2002) found that structured interviews reduced bias in hiring decisions against pregnant job applicants. The types of structured interview questions used in their study were similar to the ones used in this study. However, to assess hiring decisions, DeNicolis Bragger et al. asked “On a five-point scale, how qualified is the individual to be hired?” In addition, participants in their study did not to make an overall judgment or hiring decision concerning the candidate, but came to their decision by summing individual items rated throughout the interview consistent with highly structured interview approaches. There are two important things to note about the differences between the studies and the findings. First, raters in our study indicated that they found the pregnant applicant to be as equally qualified compared to the non-pregnant applicant, yet they still gave significantly lower hiring ratings when asked “Would you recommend this person to be hired?” It is possible the previous researchers did not find a hiring bias because their question asked how qualified the individual was and not whether the rater would in fact recommend the applicant for hire. Our study demonstrates that pregnant applicants may be seen as qualified and still not be recommended for hire in spite of their qualifications consistent with the decision-making literature. Secondly, although the DeNicolis Bragger

et al. study demonstrated that structured interviews reduce bias against pregnant job applicants, this may not always be the case. More specifically, although both studies used structured interview questions, the DeNicolis Bragger et al. study used a more structured approach by providing specific rating scales for each question, while the present study allowed participants to make more global assessments. While it is encouraging that a more structured approach can be useful in eliminating bias, it is perhaps more realistic that interviewers may come to hiring decisions using global judgments even when structured interview questions are used. If this is the case, this study demonstrates that although an interviewer may recognize the qualifications and other positive attributes of a pregnant applicant, they may still not recommend that candidate for hire because of the pregnancy.

In order to possibly remedy potential pregnancy discrimination in the selection process, it is important to understand why people are more reluctant to hire a pregnant woman. A number of possibilities were explored in this study including absenteeism and stereotyping. The results suggest that raters are concerned about the pregnant applicant needing time off, missing work and possibly quitting. In fact, the effect size of .52 for the absenteeism composite variable is clearly substantial suggesting interviewers in our study were making assumptions about potential absenteeism problems they anticipate with a pregnant applicant. In our study, the pregnancy and any potential need for time off was not discussed during the interview. It would be informative to know if discussing these concerns up front would mitigate or amplify some of the hiring rating effect. For example, if a woman is obviously pregnant, would it be beneficial to discuss the potential absenteeism issues up front? On the other hand, if a woman is not obviously pregnant, is it in her best interest to not mention it? Recent research in the interview disability literature suggests that applicants who do not acknowledge their visible physical disability during the interview are perceived less favorably than those who disclose earlier in the interview (Hebl and Skorinko 2005). It is important to remember that interviewers are legally prevented from bringing up these issues during the interview and therefore the decision to initiate a conversation about one’s condition rests solely with the candidate. Future research is clearly needed to examine whether these strategies generalize to pregnant applicants.

In addition to concerns about absenteeism and turnover, the results suggest that the pregnant employee may be perceived as more stereotypically female. In other words, raters indicated that typical communal qualities were more characteristic of the pregnant applicant. It is possible that this perception of a pregnant woman as more feminine, affectionate, gentle and nurturing is in contrast to their

perception of who would be best for that position. However, other results showed that the pregnant applicant, in spite of being seen as more stereotypically feminine, was viewed no differently from the non-pregnant applicant with regard to her qualifications, job fit, and what we called the “stereotype of a good employee.” Although the perception of feminine traits may be heightened by the visible pregnancy, these results do not seem to indicate that female stereotyping is a potential explanation for the hiring differences.

It is also interesting to note that although the interviews were *exactly* the same, the pregnant and non-pregnant applicants received significantly different ratings on a number of characteristics, and in fact the pregnant applicant received more favorable ratings on several desirable traits (see Table 2). Based on the results of this study we can not say why this occurred, although it is possible to speculate on a number of possibilities. Perhaps the raters were compensating for not ultimately recommending the pregnant applicant for hire and therefore inflated ratings on some of the positive characteristics. Alternatively, perhaps the raters were genuinely impressed that a woman in the advanced stages of pregnancy would interview for a new job and therefore that caused them to see her more positively on some characteristics. These explanations are purely speculative and future research is needed to examine these findings more closely.

Past research (Halpert et al. 1993; Gueutal and Taylor 1991) has suggested that males were more likely to exhibit negative attitudes or actions towards pregnant workers, however in this study both males and females gave lower hiring ratings to the pregnant applicant. It is possible that male attitudes toward pregnant women are changing, especially given that most studies exploring gender differences took place over a decade ago, however it is perhaps more discouraging that a pregnant applicant is at a disadvantage regardless of the gender of the person evaluating her. It is also possible that perceptions of pregnancy extend beyond simple gender lines. Future research should explore whether other issues such as differences in attitudes about family or level of conservatism provide better explanations for differences across raters.

In addition, past research has suggested that younger people and people who have never supervised a pregnant employee tend to hold more positive perceptions regarding pregnant employees (Gueutal and Taylor 1991). Although the majority of our sample was under the age of 30 (82%) and had never supervised a pregnant employee (84%), we still found evidence for bias against pregnant job applicants. Future research may want to further explore who is more likely to be favorable with regard to evaluating a pregnant applicant. For example, the majority of our sample did not have children (81.5%); perhaps, an older sample with children may be more sympathetic.

Implications

The results of this study show that an applicant’s pregnancy may have implications for not only the interviewee, but also the interviewer and the selection process in general. With regard to the interviewee, it is important for the applicant to be aware that her condition is likely to be a factor in the decision making process. Applicants must determine the best way to counteract any negative effects of their condition. In this vein, useful information might be learned from research on other stigmatized groups. For example, in the disability literature, some advocate that people bearing physical disabilities openly disclose their disability prior to the interview to avoid ‘psychological surprise’ on the part of the interviewer, however others argue that this sort of disclosure brings additional attention to something that should be irrelevant to the selection process (e.g. Huvelle et al. 1984). A pregnant applicant needs to make a judgment call about whether she thinks it is in her best interest to inform a prospective employer of her condition prior to a face-to-face meeting. The effectiveness of this strategy is likely to depend in large part on the culture and policies of the given organization. Given that this study points to concern about taking time off and missing work, it would be interesting to know if actually discussing those concerns during the interview would help or draw additional negative attention.

With regard to the interviewer and the interview process in general, these results suggest that more global hiring decisions, which are likely more realistic, may also open up more room for bias. If this is the case, employing a more structured approach may not be the answer as an interviewer’s feelings and concerns may still affect the interview scoring and result in biased decision making. However, perhaps interviewers are not adequately trained or prepared to handle interviewing situations that are perhaps outside the “norm.” While interviewers may receive training on the proper way to conduct and score an interview, it is much less likely that they have had training or experience interviewing candidates that appear different (e.g. pregnant, in a wheelchair, obese, etc.). It may be prudent to look at what effect training may have on helping an interviewer see past those issues or at least be aware of the potential for bias.

In addition to implications for the interviewee and interviewer, this research shows that there appears to be a very real concern about the time off a pregnant woman will require. These issues are legitimate in that work will need to be covered in the pregnant woman’s absence and there is the possibility that she may decide not to return to work. It is very difficult to separate the issues of needing time off and the possibility of not returning to work from the pregnancy itself. While it is discriminatory to treat an applicant or employee differently based on pregnancy, the issue of taking time off or quitting have real relevance when making

a hiring decision. It is a fair question for any manager to wonder, if in fact, all else was truly equal, would it really be discriminatory to hire the applicant who, to their knowledge, will not have to take time off and who poses no immediate threat of quitting. This important and difficult question can not be answered by this study.

What we do know is that the trends regarding women exiting the workforce once they have a child have changed drastically since the sixties. One researcher for the U.S. Census Bureau notes “The cumulative effect is that women’s work schedules are less likely to be interrupted by the birth of their first child, and women today are making longer-term commitments to the labor force than women in the 1960’s” (K. Smith, quoted in O’Connell 2001). Further research has found that 60% of women who were working before they became pregnant return to the same job after their baby is born. This number increases to 90% for women who were working full time both before and after the birth of their baby (Klerman and Leibowitz 1999). Although most women will take some time off, research suggests that it costs relatively little to the employer to redistribute the work of a woman on maternity leave (Slonaker and Wendt 1991). In addition, if an employer decides to hire a non-pregnant person over a pregnant woman, there is no guarantee that the other person, who is hired, male or female, will not also take leave for a variety of reasons which may also include the care of a new child or even a spouse or parent.

Limitations and Additional Directions for Future Research

Although participants were asked to take the role of a hiring manager in which they would be held accountable for their decision and they would have to work daily with the person they chose to hire, they watched videotaped interviews. Given that most interviews are conducted face-to-face, future studies in which participants actually interact with the pregnant applicant should be conducted to increase the external validity of the findings. In addition, the interviewer in the video was played by a male, future research may want to address whether results vary based on the gender of the interviewer. Further, participants were not asked what they thought was the true purpose of the study. Therefore it was not possible to eliminate participants who suspected we were studying the effects of pregnancy on hiring decisions. Including these people though potentially lessened the chances of finding our results as one might expect that participants who guessed the purpose would tend to respond in a socially desirable way, tending away from showing any biases (as we did find).

Because participants in our study only viewed a pregnant applicant that was seven to eight months pregnant, future research should consider how far along a woman is in her pregnancy. For example, perhaps a woman who is five or six months pregnant may be viewed differently from a woman

who is eight months pregnant and may be on the job for less time before taking leave. This clearly relates to issues such as when the woman would be able to start, the amount of time required for training, and length of expected leave. An additional question that should be addressed in future research is whether it is the visible salience of the pregnancy or the knowledge of the pregnancy that causes the negative effects. For example, if a woman is pregnant but not showing, but she discloses that she is pregnant, will she be viewed and treated the same as a woman who is visibly pregnant?

While this study lays the ground work for future investigation in this area, we acknowledge that there are many additional variables that should be explored in future research. For example, company policies regarding maternity leave, insurance, and general family-friendliness could affect the receptiveness to a pregnant applicant or employee. Given that the findings of this study point to an issue with needing time off and missing work, it would be interesting to compare the pregnant applicant or employee to other applicants or employees who will need an equal amount of time off, but for other reasons (e.g. adoption, military duty, religious purposes, health concerns, care of a sick parent, etc.). Perhaps needing time off is viewed differently depending on the reason for the absence and the perceived likelihood of that person’s return. The level of uncertainty and risk concerning the future may be heightened with a pregnant applicant because one suspects she may have to take some time off within a known time frame. Research comparing pregnant applicants with other applicants who also present some uncertainty and risk regarding the time off they will require and their potential to continue in the position once hired, will allow researchers to determine if the bias demonstrated in this study is more attributable to pregnancy discrimination or hiring decisions favoring less risk and uncertainty with regard to absenteeism. Likewise, perhaps certain jobs would be more flexible or lend themselves better to taking extended time off. The job of computer programmer was chosen in this study because it has been found to be viewed as equally suitable for both men and women. Future research may address whether certain jobs are viewed or are in fact better suited for pregnant women in comparison to non-pregnant women.

Finally, future research needs to examine these pregnancy issues in actual organizations with current employees and applicants. In addition, given that most survey work on this topic was conducted almost a decade ago, it would be beneficial to survey various populations to see where current views stand. For example, it would be interesting to question hiring managers at differing types of organizations as well as women that may have experienced pregnancy in the workplace or during the selection process. Knowing current trends from different perspectives would allow researchers to better design future research questions that need to be asked.

Summary

Some may feel that the findings of this study are not unexpected or surprising, particularly with regard to concerns about absenteeism. In fact, we know that some people feel that pregnant women should not be hired given the number of cases that have been settled on this very issue of late. As one EEOC lawyer states “The kind of cases we’re seeing are very blatant, cases where managers say, ‘We don’t want pregnant women working here’” (Armour 2005). Cases concerning pregnancy discrimination are on the rise in spite of the fact that legislation exists to protect pregnant women. Empirically investigating the issues associated with pregnancy discrimination, no matter how initially intuitive they may seem, is an important first step to understanding what is happening and will hopefully lead to better education regarding these issues.

Given that women make up about half of the current labor force and that a large part of any woman’s career will be spent during the childbearing years, there is a high likelihood that pregnancy will be a relevant career related issue for many women and their employers. In spite of the fact that pregnancy discrimination charges are rapidly increasing, this topic has received relatively little empirical research attention. This study adds to our knowledge concerning the effect of pregnancy on the selection process. More specifically, this study showed that even if given identical interview performances, raters would give less favorable hiring ratings to an applicant who is visibly pregnant. In addition, this research extends current knowledge by gaining an empirical understanding of how the pregnant applicant is perceived and factors that may be contributing to possible discrimination against pregnant applicants. This study also adds value to the existing literature by using digital technology to control the interview across conditions and thus clearly isolate the effect of the pregnancy. Therefore, all observed differences appear to be due to participants observing a pregnant applicant while she entered and exited the interview. A pregnant woman faces unique challenges compared to her non-pregnant counterparts and it is important that we understand what those challenges are, what seems to be contributing to them and how to best handle them in the workplace.

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