MATERNITY EXPERIENCE OF ACTIVE DUTY SERVICE MEMBERS

by

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A dissertation submitted to the faculty of
The University of North Carolina at Charlotte
in partial fulfillment of the requirements
for the Degree of Doctor of Philosophy in
Health Psychology

Charlotte

2020

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ABSTRACT

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The goal of this study was to investigate the lived experience of pregnant active duty service members (ADSMs). In-depth interviews with 30 women ADSMs in the US Air Force were conducted and the bioecological framework was used to examine emerging individual and institutional factors that influenced well-being and retention of women during pregnancy. Ten themes were identified as significantly effecting the physical and psychological health, social interactions, future career goals, and desire to remain in the military among pregnant ADSMs. Pervasive, negative stereotypes and bias surrounding pregnancy within the Air Force; the effect of leadership style; changes in job tasks; and mistrust of military medical doctors were the most common. In accordance with the bioecological framework, complex, bi-directional relationships between these factors were identified. Specifically, changes in job tasks during pregnancy simultaneously protected the physical health and well-being of both women and their unborn children while exacerbating women's experiences of negative stereotype and bias in the workplace. Organizational factors such as career field and leadership style also influenced the degree to which stigma and bias were experienced and effected women's health, career goals, and desire to remain in the military. Airmen in career fields such as Security Forces, Aircraft Maintenance, and Pilots were more likely to experience greater

changes in job tasks during pregnancy and reported greater amounts of negative stereotypes and bias, which ultimately affected both their physical and psychological health. A traditional authoritarian leadership style was associated with reports of adverse physical, psychological, and career goal ramifications. Furthermore, effective use of pregnancy accommodations among pregnant ADSMs was complicated by current organizational practices which leave medical recommendations to the discretion of operational commanders to enact/enforce. This, in turn, left pregnant ADSMs vulnerable to negative stereotypes and bias, in particular, among those with authoritarian leaders. Finally, findings illuminated widespread mistrust of military medical doctors among pregnant ADSMs. This stemmed from experiences in which women's physical concerns were dismissed or went unnoticed, or their personal preferences for medical care and medical providers were not heeded within the military medical system. These processes exist within the larger culture of the military in which a hierarchical power structure and efficient processes are emphasized over individualization, and physical limitations are viewed as weakness. Given these findings, recommendations for improving processes were provided. Most notably, ways for targeting the negative organizational culture around pregnancy within the military are discussed, with the goal of fostering safe and effective ways for ADSMs to remain active, productive, integral parts of their units during pregnancy.

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INTRODUCTION

Statement of the Problem

Women active duty service members (ADSMs) are a minority in the male-dominated Profession of Arms and face unique challenges to health and well-being. Women currently comprise 15.5% of active duty United States (US) Armed Forces (Department of Defense [DoD], 2014) and 10-15% of ADSMs become pregnant annually (Smith & Mowery, 1992). The pregnancy experience of ADSMs, and how it affects the overall retention and well-being of military women, is poorly understood. Importantly, recent surveys indicate 14% of women service members separate due to "parenthood and pregnancy," making it the second most common reason for separation after disability (Defense Advisory Committee on Women in the Services, 2017). Additionally, women ADSMs experience alarmingly high rates of adverse pregnancy outcomes compared to civilian women, to include up to 12 times the rate of prenatal hospitalization (Magann & Nolan, 1991), 10 times the rate of pregnancy-related anemia (Fox, Harris, & Brekken, 1997), five times the rate of preterm labor (Fox et al., 1997), three times the rate of perinatal mortality (Hauth, Gilstrap, Brekken, & Hauth, 1983), and almost twice the rate of cesarean deliveries, preeclampsia (Magann & Nolan, 1991), and low birth weight deliveries (Hauth et al., 1983). It is suspected these negative health outcomes are the result of psychosocial stress experienced during service (Fox et al., 1997; Magann & Nolan, 1991) which in turn lead to high costs to the military.

Importantly, the high rate of adverse birth outcomes and separation among women service members represents a significant medical expense and loss of resources for the US military, to include the time and approximated $170,000 invested in training each active duty member (Congressional Budget Office, 2014). Furthermore, separations affect morale of

remaining troops, including trust in fellow unit-members and work engagement, which may negatively affect missions critical to the security of the nation (Ivey, Blanc, & Mantler, 2015). This suggests the need to identify individual and workplace factors that may aid in the well-being and retention of women in the armed forces during pregnancy.

This study aims to fill gaps in knowledge by illuminating the lived experiences of pregnant ADSMs. Guided by the bioecological framework (Bronfenbrenner et al., 1994), this study examines how institutional and individual factors influence the physical and psychological health, social interactions, and future career goals of pregnant ADSMs, and their desire to remain in the military.

Bioecological Framework

The bioecological framework is frequently used in the field of Health Psychology to describe factors affecting health and well-being across the lifespan. Compared to other models, the bioecological framework offers a more in-depth, nuanced, approach to organizing the complex, bi-directional interactions between an individual and his or her contexts which serve to influence health and well-being (Bronfenbrenner et al., 1994). Furthermore, consideration of historical time period and cultural factors that influence health and well-being offers the structure necessary to the understanding of the pregnancy among ADSMs.

The bioecological framework is composed of four dynamic and interactive components: person, proximal processes, context, and time (Bronfenbrenner & Morris, 1998; Tudge, Mokrova, Hatfield, & Karnik, 2009). Proximal processes refers to the bi-directional interactions occurring between a person and his or her immediate environment (i.e., family, friends, teachers, church groups, etc.) over time, which influence behaviors and health (Bronfenbrenner & Morris, 1998; Tudge et al., 2009). The effect of these processes on health

will vary as a function of characteristics of the person, the environmental contexts, and time periods in which the processes occur (Bronfenbrenner & Morris, 1998).

Person Component

The person component of the bioecological framework refers to three types of individual characteristics which are believed to influence the effect of processes on health adaptation: demand, resource, and disposition (Bronfenbrenner & Morris, 1998; Tudge et al., 2009). Demand characteristics include those which are immediately apparent to others, such as skin color, physical appearance, age, and gender (Tudge et al., 2009). Demand characteristics are thought to influence proximal processes by "inviting or discouraging reactions from the social environment" in a way which influences development (Bronfenbrenner & Morris, 1998, p. 812). Resource characteristics include psychological, social, and material resources such as intelligence, past experiences, and skills, and are assets that affect a person's ability to effectively engage in proximal processes (Bronfenbrenner & Morris, 1998; Tudge et al., 2009). Finally disposition characteristics refer to individual differences which influence proximal processes, such as temperament, motivation, and persistence (Tudge et al., 2009).

Context Component

The effect of processes on health and well-being will also depend on environmental contexts in which the processes occur (Bronfenbrenner & Morris, 1998). The bioecological framework consists of five levels of contexts, each nested within the other, such that the inner-most context consists of the most direct and simple interactions while the outermost context consists of the most distant and complex interactions (Bronfenbrenner, 1979). The first and inner-most context, called the microsystem, consists of interactions between the person

component and proximal processes (Bronfenbrenner, 1993; Bronfenbrenner & Morris, 1998; Tudge et al., 2009). The second context, called the mesosystem, refers to interactions between environmental contexts in the microsystem (Bronfenbrenner & Morris, 1998). For example, interaction between coworkers and supervisors. The exosystem is the third context and consists of more distant social interactions in which the individual is not actually situated, but which still have indirect effects on the individual (Bronfenbrenner, 1993). For example, an infant of an ADSM who is exposed to hazardous chemicals at work during pregnancy would be at an increased risk for adverse birth outcomes given the mother's exposure. Exosystem interactions may also include those which occur between friends of family, neighbors, mass media, and social welfare services (Bronfenbrenner et al., 1994). The macrosystem refers to the effect of cultural contexts (such as organizational attitudes and policy) on an individual, to include "any group whose members share value or belief systems" (Tudge et al., 2009, p. 201). Put another way, the macrosystem is the "patterns of social interchange that are embedded in… the micro-, mexo-, and exo-systems" (Bronfenbrenner, 1993).

Time Component

The effect of processes on health and well-being will also depend on the time period in which the process occurs (Bronfenbrenner & Morris, 1998). Within the bioecological framework, time is referred to as micro-, meso-, and macro-time (Tudge et al., 2009). Micro-time indicates the length of time during which specific interactions occur (Tudge et al., 2009). Meso-time indicates the degree of consistency with which interactions occur within the individual's environment (Tudge et al., 2009). Macro-time refers to the chronosystem, a final context in which interactions between an individual and their environment vary according to the events which occur during a specific time in history (Tudge et al., 2009). For example,

comparing children born 10 years apart, but in the same geographic location, Elder (1974) found children who lived through the Great Depression interacted with their environments much differently than children who were born 10 years after the Great Depression. Specifically, children who lived through the Great Depression were more likely to serve in the military, an environment which reinforced skill development and higher education opportunities due to the GI Bill (Elder, 1974).

By considering interactions among the person, context, and time components, the bioecological framework seeks to explain the many influences on health and well-being across the lifespan (Tudge et al., 2009) and may help guide research on how maternal health behaviors develop and change over time (Wilson, Zarrett, & Kitzman-Ulrich, 2011). Specifically, the bioecological model indicates that individual's contexts play a large role in health and well-being. The lifestyle demands of active duty service make the context of work environment a significant influence on the experience of pregnancy among ADSMs. As such, guided by the bioecological framework, the purpose of this study was to understand how women experience pregnancy in the context of active duty military service.

LITERATURE REVIEW

Person Component Influences

Pregnancy is considered a "medical condition" by the Armed Forces (Biggs et al., 2009) and denotes the approximate 40-week period during which a fetus develops inside a woman's womb or uterus (National Institute of Child Health and Human Development [NICHD], 2017). This 40-week period is further delineated into three trimesters. The first trimester includes weeks one through 12 of pregnancy, the second trimester includes weeks 13-28 of pregnancy, and the third trimester includes the 29th week of pregnancy through the birth of the child (NICHD, 2017). The natural process of pregnancy was experienced by over 3.9 million women in the United States in 2017 (Center for Disease Control, 2017).

Pregnancy is accompanied by significant physical changes in a woman's body and a broad range of physical and psychological symptoms are experienced during this time. Over 60% of pregnant woman will experience nausea and vomiting which commonly occurs during the first trimester but may sometimes occur for the duration of pregnancy (American Pregnancy Association [APA], 2017; Mayo Clinic, 2017). Moreover, more than 50% of women may experience fatigue and insomnia during the first and third trimester (APA, 2017; Mayo Clinic, 2017. Further physical symptoms which commonly occur during pregnancy include increased urination, bloating, cramping, heartburn, constipation, and food aversions (Mayo Clinic, 2017). During pregnancy, women may also experience mood swings, depression, and difficulty concentrating (APA, 2015). The experience of pregnancy is unique for each woman and not all women experience all "common symptoms" previously listed. Some women recount their experience of pregnancy as "easy", with little to no negative physical or psychological symptoms, while other women experience prolonged periods of

severe physical and psychological discomfort which may affect both their professional and personal lives (Hueston & Kasik-Miller, 1998; Nicholson, Setse, Hill-Briggs, Cooper, Strobino et al., 2006; Olsson & Nilsson-Wikmar, 2004; Wood, McKellar, & Lightbody, 2013). The larger social context is likely to influence women's experiences during their pregnancy, and their perceptions associated with the biological and physical changes that occur during this time. One important social context to consider is the workplace environment.

Macrosytem Influences

Harassment and Bias Within the Workplace

As a uniquely female experience, pregnancy may further exacerbate workplace bias and harassment experienced by women, in particular in settings in which they represent a minority (Hoiberg, 1982; 1984; Hoiberg & White, 1991), such as the military. For example, women's inability to maintain high levels of physical activity during pregnancy, and resulting work restrictions, may encourage devaluation of competency and negative stereotypes of pregnant women (Butensky, 1984). Such negative stereotypes include viewing pregnant workers as a burden to group productivity, requiring excessive accommodations from organizations, less dedicated, less reliable, less capable, lazy, "on their way out" of the organization, and invalid (Major, 2004). Results of a survey of employers conducted in 2005 endorses these stereotypes, with 47% of organizations included in the study agreeing that some women abused their rights during pregnancy and 17% of organizations agreeing that pregnant women are less committed to work (Young & Morrell, 2005). These findings speak to the experience among civilian women employees. A much smaller body of literature has

examined aspects of military culture that may uniquely influence the experience of pregnant ADSMs.

Military Culture

Military culture is driven by tradition and ceremony related to organizational goals of ensuring national security. To promote safety and protection in potential dangerous and life-threatening situations, military personnel adhere to a culture of strict discipline and order (Gal & Mangelsdorff, 1991). Unlike civilian culture, traditional military culture does not encourage critical or independent thinking, but rather requires submission to a rigid, hierarchical authority structure, obedience to authority without question, and uncompromising adherence to prescribed social roles (Gal & Mangelsdorff, 1991; Katz, 1990). Introspection, individuality, and displays of emotion are discouraged as detrimental to the mission (Montgomery, 2007). Finally, the military encourages embodiment of organizational doctrines such as "service before self," in which individual needs are secondary to the needs of the collective unit (Montgomery, 2007). Individuals are frequently required to sacrifice personal comfort or desires to accomplish missions which ensure the safety and well-being of the unit, and in extreme cases, an individual may even be required to sacrifice their own life (Montgomery, 2007). The military ensures adherence to cultural beliefs and values through complete cultural immersion during lengthy, strenuous, training, and continuous, strict, social control over its members through use of ritualistic ceremony and symbols of authority (Katz, 1990; Montgomery, 2007).

Several of these cultural aspects may be difficult for pregnant ADSMs to navigate. For example, the emotional lability experienced during pregnancy due to increases in progesterone and estrogen, and changes in sleep patterns, may make it difficult to meet cultural expectations

of strict emotional control (Gibbs, 2008). Additionally, in a culture expecting members to be "fit to fight" and demanding "service before self," physical limitations and/or fatigue experienced by pregnant service members may be viewed as weaknesses which prevent the accomplishment of a mission (Fürst & Kümmel, 2011; Tam, 1995). Likewise, physical, and psychological changes which occur early in pregnancy lead to a natural increase in preoccupation with self, particularly with personal safety (Nadelson, 2013). Such change in orientation may be in sharp contrast to the cultural demands of "service before self" and the sacrificing of one's own life on behalf of others (Montgomery, 2007). These experiences among ADSM's highlight ways in which the military culture may be experienced as incongruent with both physical and psychological changes during pregnancy.

Time Component

Military History

These incongruencies may give the appearance that pregnancy is incompatible with military service. In fact, pregnancy and maternity emerge as the most debated issues in the history of women in the military (Biggs et al., 2009) due to controversy over implications for unit readiness, effectiveness, morale, and cohesion (Lundquist & Smith, 2005; Smith & Mowery, 1992). Prior to 1979, pregnancy was, indeed, viewed as incompatible with military service, and resulted in administrative discharge (Correnti & Jensen, 1989). Given difficulties retaining women within the all-volunteer US military, current-day policy enables women to have children while continuing their military careers (Bourge & Segal, 1999). However, these women must navigate historically-based stigma related to pregnancy within the military. Such stigma is portrayed by findings of Army Review Committees that pregnancy led enlisted women ADSMs to miss twice as much work as men, which negatively affected the morale

within units (Army Administrators, 1978). For example, in a 1991 study on pregnancy of service members in the Navy, commanders interviewed were noted to have made references to women soldiers "deliberately becoming pregnant to avoid work or service altogether" (Thomas, Thomas, & McClintock, 1991, p. 14). Newspaper headlines during the Persian Gulf War read "Pregnancy Kept GI Jill Out of War; A Camouflage Baby Boom?; Sailor Pregnant to Avoid Tough Duty?; and 70 GIs Leave Bosnia on Stork" (Lundquist, 2005, p. 2). Statistics indicate 1,200 women out of 36,200 were evacuated due to pregnancy during the Persian Gulf War and 47% of all women nondeployments were due to pregnancy (Lundquist, 2005). The long history of debate surrounding pregnancy, and recently changing military policies surrounding pregnancy, indicate a culture still in the process of adjusting to full integration of women personnel.

Exosystem Influences

Military Policy

Recent changes to military policy have extended maternity leave to three months (Secretary of the Air Force [SECAF], 2016), limited pregnant ADSMs to 40 hours of duty per week/eight hours per day (Department of the Army, 2011), suggested pregnant ADSMs take breaks from duty throughout the work day (SECAF, 1996), allowed breaks every three-to-four hours for breast milk pumping in a private and clean room that is not a restroom (Department of the Air Force, 2018), required pregnant personnel be re-assigned to positions with less health hazards during gestation (Biggs et al., 2009), and be exempt from physical fitness standards and deployment until one year post-partum (Secretary of the Air Force Public Affairs, 2015). However, it is unclear how these policy changes influence the experience of maternity, workplace climate, career goals, and retention among pregnant ADSMs.

For example, the military culture values unit morale as a critical component to success in wartime (Gal & Mangelsdorf, 1991). As such, military personnel learn to act as a team, working together and depending on each-other to accomplish tasks which ensure the safety of all personnel within a unit training for life-threatening situations (Montgomery, 2007). However, pregnant ADSMs experiencing medical complications which restrict or prevent performance of work duties or attendance, and who leave work for three months of maternity leave, may be perceived as a threat to the unit cohesion and moral. Because pregnancy is considered a medical condition by military regulations, units with pregnant personnel are not able to request augmentation (Biggs et al., 2009). Rather, work is re-distributed to remaining mission-capable personnel during absences due to pregnancy. Furthermore, it is common knowledge among unit personnel that pregnant ADSMs remain employed full-time and receive full pay and benefits throughout pregnancy and maternity leave, regardless of their ability to attend work or perform work duties (Evans, 1998). These factors likely have social and psychological consequences for pregnant ADSMs, who may feel pressure to continue performing duties to actively contribute to the team, or experience resentment or hostility from coworkers who must take on additional work as a result of pregnancy-related work restrictions.

Research indicates pregnant employees experience high levels of stress as a result of policies and practices related to pregnancy accommodations, workplace expectations, and negative cultural stereotypes, which lead to bias and interpersonal discrimination (Baker & Copp, 1997; Bragger et al., 2002; Corse, 1990; Fried, 2000; Halpert, Wilson, & Hickman, 1993; Major, 2004). For instance, in a maternity rights survey conducted in 2007 (Russell & Banks, 2011), 32% of pregnant working women endorsed receiving unpleasant comments

from employers/colleagues, 18% endorsed being unfairly criticized or disciplined about performance at work, and 19% endorsed "other type of unfair treatment" (p. 17). In a qualitative study conducted by Davis, Neathey, Reganm and Willison (2005), 17% of the pregnant employees interviewed explicitly stated discrimination had affected their health or the health of their infant. These women endorsed stress because of discrimination that led them to experience exhaustion, anger, and unhappiness (Davis et al., 2005). In this way, workplace culture may lead women to experience polices for pregnancy-related work accommodations as less helpful.

Work Accommodations

Results from the few studies investigating this area indicate accepting accommodations may have negative results for pregnant ADSMs. For example, re-assignment of pregnant ADSMs to positions with less health hazards during gestation is intended to protect both the mother and child, as well as ensure unit readiness through manning with personnel able to perform the full range of job requirements, without physical limitations (Evans & Rosen, 1997; Scialli, 1993). However, results of a study by Evans (1997), with 350 pregnant ADSMs from the Army, Air Force, Navy and Marines, indicated women who had been re-assigned due to physical limitations during pregnancy were less likely to agree with the necessity of the action and reported reduced psychological well-being in the form of increased somatization, depression, anxiety, and hostility (Evans & Rosen, 1997). Furthermore, pregnant ADSMs expressed concern over re-assignment resulting is a loss of valuable job experience and negatively affecting their performance evaluation and promotion opportunities (Evans & Rosen, 1997). Similarly, in a study conducted among Navy pregnant ADSMs, about 50% of women who were re-assigned indicated their new job was

administrative or clerical in nature and was outside of their specialized skill set and training received within their military careers (Ureill & Burress, 2005).

In addition to the potential disruption to flow of a military career and promotion trajectory, Halpert, Wilson, and Hickman (1993) found that bias surrounding pregnancy negatively affected performance appraisals of ADSMs. As discussed previously, a unit's loss of manpower through work restrictions associated with pregnancy may create stressful and hostile work environments for pregnant ADSMs. Among civilian women, findings indicate negative attitudes regarding pregnancy in the workplace may contribute to job dissatisfaction and turnover (Henrich, Schmider, Fuchs, Schmidt, & Dudenhausen, 2003). Therefore, understanding how available accommodations are experienced by pregnant ADSMs may be critical to ensuring both the health and retention of valuable personnel. This understanding is furthered by examining how women cope with, and respond to, workplace stigma, bias, and discrimination.

Microsystem Influences

In response to negative stereotypes surrounding pregnancy in the workplace, it is likely women employees experience *stereotype threat* in which they fear conforming to such stereotypes and go to great lengths to act in ways perceived as opposite of the undesirable stigma (Aronson, Burgess, Phelan, & Juarez, 2013; Major, 2004). Stereotype threat in the workplace has been found to be associated with decreased work performance, specifically among women faced with the stereotype that women are less competent than men (Bergeron, Block, & Echtenkamp, 2006). Furthermore, stereotype threat among women has also been found to be associated with lower job satisfaction and commitment (Riketta, 2008; von Hippel, Kalokerinos, & Henry, 2013).

Women may engage in "covering," a term used to describe attempts to manage the perceptions and reactions of others by acting in ways meant to set oneself apart from negative stereotypes and stigmas (Doyle & Molix, 2017). Pregnant women employees who cover may engage in behaviors meant to increase productivity. For example, in a qualitative study conducted with pregnant employees, Major (2004) found over 60% of women she interviewed covered by attempting to maintain a work pace equal to that prior to pregnancy.

Pregnant women have been found to endorse feeling as if they needed to demonstrate a higher level of performance at work than they had achieved before pregnancy in order to "prove themselves" to supervisors and coworkers (Major, 2004). In a qualitative study, fifty percent of women interviewed spoke about minimizing and avoiding their use of workplace pregnancy-related accommodations, even going so far as to "accept [travel] assignments that they felt were difficult or risky…to avoid the appearance of needing special accommodation in any way" (Major, 2004, p. 35). These findings provide insight to the discrimination faced by civilian pregnant women who are perceived by coworkers as fitting negative pregnancy-related stereotypes. It is unclear if this research accurately reflects the experiences of ADSMs. It is possible ADSMs may exhibit more extreme covering behaviors in response to military organizational rules, values, and norms, which make the work climate unique from that found in the civilian culture (Montgomery, 2007).

Workplace Support

One important factor that may moderate women's response to stigma, stereotype, and bias is social support (Evans & Rosen, 1997). Due to frequent moves and deployments, women ADSMs experience attenuated access to family and long-term friends (Montlavo, 1976), and may rely on every-day interactions with military coworkers and Commanders to

meet needs. In fact, supervisor and coworker support emerge as strong predictors of turnover among military women (Evans & Rosen, 1997; Royle, 1985). Three studies, conducted by Evans and Rosen (1996; 1997; 2000), endeavored to better understand how pregnant ADSMs experienced social support in the military work environment. These studies examined work climate by measuring commander and coworker support, support for pregnancy-related work restrictions, and harassment and discrimination experienced by pregnant ADSMs. Commander support was defined as the degree to which a commander was supportive of pregnancy, responded to negative pregnancy comments, and whether the work climate was positive. Coworker support was defined as the degree to which pregnant women were included in activities, experienced negative remarks about pregnancy, or resentment from coworkers over work missed for pregnancy. Evans and Rosen (1996) found that approximately 25% of women reported pregnancy-related workplace harassment and 8% felt as if coworkers were resentful of increased workloads caused by pregnancy-related work restrictions. Additionally, 27% of women reported reduced command support during pregnancy. Thirty-five percent of women reported reduced coworker support, 34% reported worsening workplace harassment over the course of their pregnancy, and 44% reported reduced pregnancy profile support (degree to which medical, pregnancy-related work restrictions were honored without questions or harassment) over the course of their pregnancy (Evans & Rosen, 1997). Research indicates marriage status and pregnancy planning effect social support received by pregnant ADSMs such that married women experience significantly more pregnancy profile support, than single ADSMs (Evans & Rosen, 2000). Furthermore, ADSMs who planned their pregnancies reported greater coworker support (Evans & Rosen, 1997). In a study conducted with 345 pregnant service members across the

Army, Navy, Air Force, and Marines, 55% of participants indicated their pregnancies had been planned (Evans & Rosen, 1997), a statistic that matches that of the overall US population (Forrest, 1994). Women reporting planned pregnancies also reported higher levels of command, coworker, and pregnancy profile support (Evans & Rosen, 1997). Pregnancy timing in relation to career also predicted harassment, with participants indicating both reduced command support and increased harassment when they perceived their pregnancy was poorly timed (Evans & Rosen, 1997).

Understanding and improving coworker and command support to pregnant ADSMs is important given research indicating the critical role social support plays in maternal health and fetal development. In a sample of civilian women, Feldman et al. (2000) found social support accounted for 31% of the variance in fetal growth. Mechanisms through which social support is thought to influence infant birth weight include reduced maternal stress and promotion of maternal health behaviors such as engaging in physical activity and having a healthy diet (Hoffman & Hatch, 1996). However, research within the military population suggests understanding and improvement of command support to pregnant ADSMs may be hindered by discrepancies between supervisor intentions and the experience of pregnant personnel surrounding support. By interviewing 33 solder-supervisor pairs, Correnti (1989) found differences in perceptions of support between pregnant ADSMs and their supervisors. Specifically, supervisors rated themselves as maximally supportive during the third trimester of pregnancy, while pregnant ADSMs reported perceiving no difference in the amount of support received during the first, second, and third trimesters of pregnancy (Correnti, 1989). Furthermore, supervisors rated themselves as more satisfied with the support they provided to their pregnant personnel than pregnant ADSMs rated the support provided by the supervisor

(Correnti, 1989). These results may be indicative of a lack of knowledge among supervisors regarding both the physical impact of pregnancy as well as effective and helpful ways to support pregnant personnel.

In addition, study results indicated supervisors' actions which were intended to be supportive were perceived as overly protective by pregnant ADSMs, with pregnant soldiers reporting feeling underutilized and isolated during their pregnancy (Correnti, 1989). For example, while supervisors endorsed supporting pregnant ADSMs by relieving them of work responsibilities generally regarded as unpleasant, women indicated this action resulted in suspicions of unfair treatment and fear of resentment by peers (Correnti, 1989). Furthermore, while supervisors indicated pregnant ADSMs were re-assigned to work responsibilities that were lower in stress, women indicated feeling "pushed aside" and "put in offices away from everything" during a time when support was needed (Correnti, 1989, p. 573).

Conclusion

Existing literature indicates a wide range of potential individual, workplace, institutional, and cultural factors which likely influence the experience of pregnancy among ADSMs. These findings support the use of the bioecological framework to understand bi-directional interactions between pregnant personnel, military culture, and the active duty workplace environment. Specifically, this study aimed to understand how ADSMs experience institutional policy around pregnancy, to include workplace accommodations. Additionally, this study endeavored to understand military cultural attitudes surrounding pregnancy among ADSMs, and aspects of military service which pregnant ADSMs felt effected their perception of physical and psychological health, future career goals, and decisions to remain in the military.

To my knowledge, no research has been conducted on the experience of pregnancy among women ADSMs in the last 17 years. Thus, the small body of existing literature is outdated considering recent changes to military policy which has opened all combat positions to women (Pellerin, 2015) and increased the number of accommodations available to pregnant service members. Given the high rate of separation among women ADSMs due to "parenthood and pregnancy" (Defense Advisory Committee on Women in the Services, 2017) and the high rates of adverse birth outcomes which (Fox et al., 1997; Magann & Nolan, 1991) result in significant medical expenses and loss of resources and readiness for the US military (Congressional Budget Office, 2014), understanding the maternity experience of active duty women is critical to the well-being and retention of a highly skilled population. The proposed study examined the lived experiences of pregnant ADSMs navigating the current-day environment of the US Air Force. The findings of this qualitative investigation will provide critical understanding of how institutional and individual factors influence the physical and psychological health, social interactions, and future career goals of pregnant ADSMs, and their desire to remain in the military. The literature review suggests special attention should be paid to workplace harassment, workplace accommodations, and both command and coworker support experienced by pregnant ADSMs. This study employed a qualitative, grounded theory methodology to investigate the following research question:

Research Question

What are the work-related experiences of pregnant women who are serving active duty in the Air Force?

METHOD

Grounded Theory

Grounded theory (Glaser & Strauss, 1967) is the practice of generating a theory to explain a phenomenon through use of a set of principles and guidelines. Contrary to theories made a priori, grounded theory involves development of theory shaped by data collected from participants experiencing the phenomenon of interest (Creswell, 2013). In this way, the theory is "grounded" in data (Stauss & Corbin, 1998). The social constructivist approach to grounded theory (Charmaz, 2006) is used to learn about a phenomenon which is "embedded within hidden networks, situations, and relationships" (Creswell, 2007, p. 87). Therefore, the social constructivist grounded theory approach is a particularly appropriate method to guide the investigative work of the experience of pregnancy within the workplace, utilizing a bioecological framework. Furthermore, the social constructivist approach to grounded theory proposes data does not "provide a window on reality", but rather that theory emerging through analysis is temporal, cultural, and influenced by the researcher's "personal values, experiences, and priorities" (Creswell, 2007, pg. 88; Mills, Bonner, & Francis, 2006). In this way, use of the social constructivist approach to grounded theory matches well my transparency as a researcher, with values and priorities shaped by my own experience of serving active duty as a woman in the Air Force. In constructivist grounded theory, a researcher goes beyond the words of participants in raw data, searching for meaning in "values, beliefs, and ideologies" that may have been conveyed by participants (Mills et al., 2006, pg. 31).

Participants

Participants of this study included 30 pregnant ADSMs serving in the US Air Force (USAF). This service branch was selected based on recruiting potential as the USAF has the highest proportion of active duty women (20%) of any U.S. military service (Robbins, Chao, Frost, & Fonseca, 2005; US Air Force Personnel Center, 2017) and my personal connection to this branch as a former USAF ADSM and current USAF Reservist can be leveraged to gather participants. Participants were in the second or third trimester of pregnancy, or within 3 months post-partum at the time of interview.

Participants were pregnant with their first child. Due to the recent implementation of many new maternity-related policies within the military (i.e., breast-feeding rooms and extended maternity and paternity leave), a focus on first time pregnant women way have served to decrease chances of women with previous children comparing the most recent maternity experience with previous experiences. Previous maternity experiences may have occurred during less favorable military conditions, and participants experiencing these new policies during a subsequent pregnancy may be more likely to provide overly positive responses.

Participants in this study were operational, line personnel[1], rather than medical personnel, chaplains, or attorneys. Line personnel make up the majority (68%) of active duty Air Force personnel (US Air Force Personnel Center, 2017). In contrast, individuals serving in medical and other specialty careers receive civilian training prior to service and are valued for

[1] A term referring to personnel serving and commanding in operational positions, as opposed to personnel serving within a specialty (i.e. chaplains, attorneys, pilots, navigators, and medical personnel) (Lim, Nelson, Jefferson, Marquis, Hall, et al., 2009).

specialty skills. This difference is perhaps best described by Daley (1999), "Their [line personnel] career and identity is to be a military officer who just happens to have a specialty skill. Medical officers (contrary to the continual indoctrination efforts by military leadership) view themselves as medical professionals first and military officers as a second role." (p. 297). This valued status is often accompanied by more predictable work schedules, shorter duty days, preferential base assignments, and monetary bonuses to increase retention. Furthermore, research indicates units of line personnel are more frequently involved in combat, more likely to experience role strain, and thus be more threatened by impaired effectiveness due to limited capabilities of pregnant ADSMs (Correnti & Jensen, 1989).

In line with previous studies (Correnti & Jensen, 1989; Evans, 1997), the current study included only enlisted members of the rank E-6 and below and commissioned officers of the rank O-3 and below in an effort to include individuals representative of the overall military population. Service members with the rank of E-6 and below currently comprise 73.5% of the total US enlisted force and 73% of the enlisted Air Force, while officers ranked O-3 and below currently comprise 60.5% of the total US military commissioned force and 55.8% of the overall USAF (Defense Manpower Data Center, 2017).

Recruitment

This qualitative study used purposeful, snowball, and theoretical sampling. Purposeful sampling involved recruiting and interviewing individuals from the USAF who met study criteria and purposefully represented different perspectives on the research questions of interest (Creswell, 2007). For example, equal numbers of enlisted and commissioned personnel were interviewed to gather information from pregnant ADSMs in both leadership and technical positions. Snowball sampling entails asking a current participant to refer other

individuals whom they know meet study criteria (Creswell, 2007). Because pregnant women often seek social support from other pregnant women (Bernhardt & Felter, 2004; Laganl, Sinclair, & Kernohan, 2006), snowball sampling was used to aid in recruiting participants from the relatively small group of ADSMs who become pregnant with their first child in any given year. Furthermore, theoretical sampling was used to include diverse participant characteristics throughout the data collection process. Specifically, participants were selected to ensure sampling of a wide variety of career fields. This enabled data collection from women experiencing a wide range of job tasks and cultural niches within the USAF.

An advertisement with a brief description of the study, inclusionary criteria, and a link to an online screening questionnaire and consent form was placed on a private "USAF Women's Officer Forum" Facebook page, a social media outlet with almost 6,000 vetted, commissioned, female, members. The same study material was shared on a private "Air Force AMN/NCO/SNCO" Facebook page, with approximately 292,500 vetted, enlisted, members. A total of 374 responses to the online screener were received within two weeks and 75 women were considered eligible to participate. Thirty women were interviewed, including 15 enlisted and 15 commissioned members. Participants represented career fields such as pilot, intelligence, force support, aircraft maintenance, munitions, security forces, engineering, command and control, logistics and planning, acquisitions, and combat systems (aircraft navigator).

Data Collection Procedure

Project Flow Part I

A graphic depiction of the project flow is provided in Appendix A. A study advertisement was distributed electronically, as previously mentioned, instructing interested participants to complete an online screening questionnaire and consent form. The screening questionnaire was programmed such that participants who did not meet eligibility criteria received the following message: "*Thank you for your interest in our study. Unfortunately, it looks like you are not eligible to participate at this time. Would you be interested in being re-contacted if our eligibility requirements for this study change?"* Due to the robust number of responses and eligible participants received, eligibility criteria for this study were not changed. Participants who met eligibility criteria during the screener received the following message: "*Thank you for your interest in our study. You are eligible to participate! Please read the following consent form carefully. After completing this form, the Principal Investigator will contact you within seven days via e-mail to set up a phone interview."* The electronic consent form was then made available to the participant. Only participants who completed the consent form were considered for contact. Participants who completed the consent form then received an e-mail from the investigator to schedule an interview, followed by a phone call on the agreed upon day and time. Each of the 30 participants in this study were available for interview on the agreed-upon day and time. The thirty participants in this study represented career fields such as pilot, intelligence, force support, aircraft maintenance, munitions, security forces, engineering, command and control, logistics and planning, acquisitions, and combat systems (aircraft navigator).

Each phone interview began with the PI verbally asking questions from the screening to re-check eligibility. Each of the 30 participants met eligibility criteria upon re-check; participants received a $30 electronic, Amazon gift card immediately following completion of the phone interview.

Project Flow Part II

To ensure resonance and credibility of study findings, member reflections were conducted. Five women were selected at random from the pool of participants who completed the initial interview in part I of the study to participate in a focus group. Specifically, participants were selected via a random number generator and contacted via e-mail, inquiring about their interest in participating in part II of the study. Participants who did not respond within seven days to the e-mail request were passed over and new participants were selected via random number generator; this process was repeated until five, interested participants were gathered. These five participants (three enlisted and two commissioned members) received a three-page summary of findings seven days prior to the scheduled focus group. Due to schedule conflicts, one focus group of two participants, and three separate interviews with the remaining three participants were conducted. Each interview (group and individual) lasted between 30-45 minutes, during which participants discussed to what degree findings of the study resonated for them. The five members who participated in the member reflections received a $20, electronic, Amazon gift card. A graphic depiction of the project flow of Part II of this study is provided in Appendix B.

Interview Process

Interviews occurred via phone or through use of a Facebook calling feature, which facilitated conversations with women stationed outside of the continental United States. This

method of communication greatly reduced study costs by eliminating travel, and eased participation for women, enabling them to conduct the interview at a location in which they felt comfortable. All telephone interviews were recorded to facilitate transcription. Recordings were stored on an SD card and then converted to electronic computer files, saved to a personal UNC Charlotte Google Drive. The PI personally conducted all 30 interviews, relying on clinical and interview skills acquired through academic study, five hours of formal research interview training through the Military Family Research Institute, and field experience conducting semi-structured, qualitative interviews for multiple research projects. This training and experience helped ensure the quality of interviews. The PI sought to build rapport with participants during interviews to encourage open and honest discussion about their maternity experience.

Interview Format

In line with qualitative research methods, and the intent to gather information about the lived experience of pregnant ADSMs, this study relied on a semi-structured interview format with open-ended, free-response questions to ensure a degree of internal consistency while eliciting participants' honest, detailed, and unstructured responses regarding their maternity experience (Creswell, 2013). The PI briefly introduced herself at the beginning of each interview and provided the participant a short explanation of the interview process. This included informing the participant that they could request to discontinue the interview at any time and elect to not answer questions that cause discomfort. The participant was also assured no negative consequences would come of discontinuing the interview and that such partial interview recordings may be deleted and not included in the study, at their request.

Each interview began with a short series of demographic questions and was then further divided into five parts. The first section inquired about background information, such as reason for joining the military and medical care received. These questions were used to provide context to answers participants provided during the remainder of the interview. The second section included questions about interactions with leadership and coworkers. For example, "*How did leadership/coworkers respond to learning you were pregnant?*" The third section inquired about accommodations used during pregnancy and included questions such as "*In what ways, if any did your work tasks change during pregnancy?"* The fourth section asked questions about physical and psychological health during pregnancy. Finally, the fifth section inquired about women's desire to remain in the military and elicited suggestions for improvements women may have for policymakers and leadership. Please see Appendix A for the full interview protocol.

Techniques and Procedures Used During Interviews

Probing, summarizing, and field notes were used to augment the interview process. Probing was used to prompt participants for additional, clarifying, or more in-depth, information through a series of short, directive, open-ended questions (Shenton, 2004). Examples of probing questions include, "*Tell me more about…"*, "*Could you give me an example of…"*, "*I'm not certain what you meant by…".* In situations where participants provided lengthy answers to questions, with multiple main points, the PI summarized the participant's response. For example, *"This is what I thought I heard… Am I understanding you correctly*?", followed by, *"Is there anything else you would like to add before moving on?"* Summarizing the participant's responses and obtaining feedback served as a way of

performing a member reflection during the interview, and bolsters credibility and rigorousness of study results (Emerson, Fretz, & Shaw, 1995; Shenton, 2004).

Field notes were also recorded throughout the interview. Field notes are a method of unstructured documentation of the interview experience from the interviewer's perspective (Emerson, Fretz, & Shaw, 1995) and add credibility, rigorousness, and sincerity to study results (Tracy, 2010). Field notes for the current study included unusual circumstances that arose during interviews (i.e. poor phone connection), personal responses to participant answers worth reflecting on during the analysis phase, and perceptions of participant engagement, tone of voice, and attitude during the interview (Emerson, Fretz, & Shaw, 1995).

Data Analysis

Constant Comparison Method

The constant comparative method (Glaser & Strauss, 1967) was used to analyze data, in line with the use of the social constructivist grounded theory. This method involved a process of simultaneous theoretical sampling, coding of data, and analysis of emerging themes (Kolb, 2012). Specifically, emerging data were first compared to identify categories or themes (Kolb, 2012). Then, data within each theme were compared to delineate properties of each theme (Kolb, 2012). A theory was developed by comparing emerging themes and determining how they may be related (Kolb, 2012). Finally, theoretical sampling was used throughout this process to facilitate expanding and refining emerging themes and theory by comparing them with incoming data (Kolb, 2012). This also allowed for emerging themes to drive modifications to interview questions (DiCicco-Bloom & Brabtree, 2006). For example, when a theme of trust/distrust in medical care emerged during interviews in response to the question "what type of medical care are you receiving during your pregnancy?", an additional, more

specific question was added in which participants were asked "would you be willing to talk about your experience with your medical care?" Using the constant comparison approach, data analysis informed cessation of data collection when it became apparent that interviews began to produce redundant information and no further categories emerged from the data (Creswell, 2013).

Coding

Transcriptions of interviews were and uploaded to NVivo (Version 12.4.0) for coding analysis. Coding was approached through a three-phase process of open coding, axial coding, and selective coding (Strauss & Corbin, 1998). Open coding involved line-by-line comparison of data to identify major categories, or groups of raw data sharing meaning and similar characteristics (Thomas, 2006). Within the study, all 30 interviews were completed within a span of 35 days, which resulted in frequent and consistent exposure to data and enabled quick identification of re-occurring categories of responses across several participants, which were labeled as themes. In accordance with the constant comparison, coding was initiated after the third interview was completed and began with coding responses to each interview question as their own category (i.e. responses to "Tell me about the medical care you received during pregnancy" was coded as "Medical care"). As data analysis proceeded, strong themes emerged within the responses to questions across the majority of participants, such as "Distrust in military medical care." Additionally, further themes emerged across responses to different interview questions (i.e. "Stigma and bias against pregnancy"). During the open coding phase, categories were compared and combined or refined to reduce overlap and redundancy, leading to the development of over-arching themes. Examples of over-arching themes found in the data of this study are "Stigma/Harassment", "Retention", and "Policy" (A

frequency report for each theme identified in this study may be found in Appendix G). Each theme was accompanied by a description of meaning to capture and preserve the integrity of the initial categories, such as "Retention: Desire to remain in the military."

Axial coding was used to further delineate main themes into sub-topics, which highlighted different dimensions and aspects of each theme (Creswell, 2013). For example, "Stigma/Harassment" had identified sub-topics of "less-disciplined/lazy/weak", "getting out of work", and "fragile" to delineate different messages women received from coworkers and leadership. Of note, sub-topics in the social constructivist grounded theory are not confined to denoting hierarchical standing of data within a theme (Hee Lee, 2011). Rather, the identification of sub-topics also refers to the data's role within the emerging theory (Hee Lee, 2011). For example, during axial coding, emerging themes and sub-topics were examined in relation to each other to identify ways in which data were inter-related (Creswell, 2013). A single theme of "Stigma/Harassment" became the "core theme," around which other sub-topics were arranged, to answer questions of "when, where, why, how, and with what consequences" (Strauss & Corbin, 1998, p. 125). In this way, ideas of data relation were tested and modified during the development of an over-arching theory. For example, the sub-topic of "Threat response behavior" was related to the theme of "Stigma/Harassment" because it described a way in which women responded to demeaning interactions within the work environment.

Selective coding represents the final phase of the coding process and involved refining the emerging theory to determine "the story line" of the data (Strauss & Corbin, 1998, p. 148). During this phase, themes were diagramed within the bioecological model to further understand relationships among the core theme and other themes and sub-topics. The position

of both themes and sub-topics within the model were continually refined based on relationship fit, until a clear story line was evident, and the theory could be conveyed in an efficient manner. For a visual representation of elements of axial coding within the bioecological model, see Appendix G. The end result of the coding process is the development of a theory, consisting of a combination of final themes uncovered from analysis of interview responses, answering the main research question by representing the institutional and individual factors which influence the physical and psychological health, social interactions, and future career goals of pregnant ADSMs, and their desire to remain in the military.

Of note, the nature of conversation during phone interviews, and the sheer volume of data collected, resulted in collection of some data that were not related to the research questions of this study. During the analysis process, data that fell outside of physical/psychological health/well-being, social interactions, policy, and retention of women in relation to pregnancy were left un-coded in all interviews. For example, women speaking of concerns about finding child-care to fit their work schedules and breast-feeding accommodations when returning to work fell outside the realm of the current study on pregnancy among active duty service members, in which participants were specifically selected for their status of being currently pregnant or not yet having returned to work post-partum.

Evaluation of Study

There is currently no standard, accepted, method of evaluating qualitative research. This study was conducted to meet the eight key evaluative criteria suggested by Tracey (2010), which cover a broad variety of universal concerns in research approach. Specifically, Tracey (2010) proposes qualitative research should be rigorous, sincere, ethical, credible,

resonate, and make a significant contribution about a worthy topic. The ways in which this study meets criteria for being ethical and rigorous, making a significant contribution, and being a worthy topic, are covered in Chapter I and Chapter III. The ways in which the current study strives to meet remaining criteria of resonance, credibility, and sincerity, are outlined below.

Resonance refers to the dependability of the study findings and is strengthened in this study through use of member reflections (Charmaz, 2006; Tracey, 2010). As previously described, five participants were invited to read a short summary of findings and answer the question, "*How do these findings resonate with you?*". This practice enables collaboration with participants through soliciting feedback on whether the theory incorporates and explains multiple, personal, experiences (Tracey, 2010). In the process, this collaboration brings new data, and encourages a deeper analysis (Tracey, 2010). Additionally, member reflections enable the researcher to gauge whether participants find the theory "comprehendible and meaningful," an important first test that speaks to the likely reaction of a broader audience (Tracey, 2010, p. 844).

Credibility refers to the trustworthiness of findings (Tracey, 2010) and was strengthened in this study through negative case analysis in the presentation of results. This process involved discussing and explaining cases which contradicted the over-arching proposed theory (Mays & Pope, 2000). Credibility was also strengthened in this study through use of a secondary coder (Lincoln & Guba, 1985). This additional researcher was trained in the bioecological model used to approach data from this study, and shared inside knowledge of military culture, having served active duty as a woman in the Air Force. The additional researcher was provided a list of 24 themes and 27 sub-topics and asked to code four

interviews (two enlisted participants and two officer participants; 13% of the total data). The additional researcher was encouraged to identify new or different themes than those provided, should she see data differently than the PI.

The additional researcher met with the PI to compare coding of the four, shared, interviews. Both coders identified information clearly fitting into 20 of the 24 original themes and associated sub-topics. Additionally, there was agreement between coders of themes and sub-topics that were not relevant to the four dual-coded interviews. Differences in coding were discussed until a 98.59% agreement rate was reached (K=.95). Finally, further discussion revealed the secondary coder did not identify new or different themes than those provided. Such intercoder agreement helped to improve the validity of, and confidence in, study results (Shelton, 2004).

To demonstrate strong sincerity, a study must convey an honest approach with transparency and self-reflection regarding goals and biases that may influence decisions made about the data collection and analysis process (Tracy, 2004). To achieve sincerity, the PI conveys her personal biases and goals related to the current study as follows: I served for four years as an Intelligence Officer in the USAF before separating from service and occupying my current civilian role, which is not affiliated with the military. My position as a Flight Commander within a small unit allowed me the opportunity to be a mid-level leader; an authority figure with the ability to socialize with my Airmen while managing tactical-level processes. I was considered a “safe point” for troops to discuss concerns and was therefore well apprised of the flight’s morale, motivation, and mental health. During my service in this capacity, I personally experienced the difficulty involved in balancing sincere personal concern for a service member experiencing an illness or health condition, with considerations

of the collective burden placed on unit personnel who remained mission capable. I was privy to both the fears experienced by my ill troop regarding stigma, rejection by unit members, and guilt over inconveniencing others due to inability to carry out duties, as well as family hardships caused by the resulting extra work and longer hours in my mission-capable personnel. I imagine this experience within my unit may be somewhat like experiences among other active duty units with pregnant service members who are unable to fulfill duty requirements due to pregnancy-related medical issues. As a Flight Commander, personnel issues were a focus of my daily duties and I did not perceive situations in which work needed to be re-distributed among remaining mission-capable personnel to cause me stress in excess to that which I experienced on a daily basis. Therefore, I feel this experience enabled me to have a balanced view of the situation in which I had understanding and compassion for both my troop struggling with a health concern, as well as the rest of my troops. I entered this study with the goal of being open-minded, empathetic, and compassionate toward participants, and I was not aware of personal biases against pregnant ADSMs.

I am married to an enlisted Senior-Non-Commissioned Officer in the USAF who serves in the field of Aircraft Maintenance, a specialty in which women who learn of pregnancy are immediately transferred from line-of-duty to administrative positions. Through my husband's leadership experience, I became aware of the hardships placed on unit personnel (and consequently, me as a family member) when a service member is removed from duty without warning due to pregnancy, and the position is not able to be back-filled. While I feel it is important to disclose this experience due to the possible personal bias that could result against pregnant ADSMs, I also believe my view on military medical policies

surrounding pregnancy is balanced by my identity as a woman with plans to return to active duty service in the future, and have children while serving in this role.

I am encouraged by the direction of recent policy changes regarding maternity and it is my personal belief that appropriate and fair accommodations should be afforded to women during the unique and important endeavor of pregnancy while serving active duty. I am aware my lack of experience as a mother influences my outlook on this study endeavor and it is my intention to be open-minded and to learn from participants. I am interested in learning how current accommodations co-exist with military doctrine encouraging service before self, and how the decisions and policies regarding pregnancy occur in context of the responsibilities and roles in the workplace.

RESULTS

This chapter reports findings of the study, through presentation of themes and sub-topics that describe the experience of pregnancy among active duty Air Force women.

Negative Stereotypes and Stigma

Negative stereotypes and stigma around pregnancy emerged as a strong central theme among study findings. In order to understand the extent to which these concepts operate in and effect women in the workplace, it is first necessary to acknowledge the basic, underlying, negative stereotype associated with being a woman in a male-dominated military organization. Women spoke of this experience as follows:

> *... working the flight line is very very stressful just because you have that constant kind of anxiety knowing that… if you mess up, your career is on the line. Especially if you're a female because when you're a female you have …20 more eyes on you, watching everything you do…they're expecting you to already fail.*

Against a backdrop of difficulties associated with being a woman in a male-dominated organization, women reported pregnancy led them to feel "*more* seen" within the work center: *"I think as women we always sort of feel seen in the military. Like, you stand out and you look different than the men. But when you're pregnant, it's… extra obvious…it just feels uncomfortable and… noticeable*."

More specifically, most of the additional attention received by pregnant ADSMs was perceived as negative. Women indicated feeling as if others viewed them as less disciplined, lazy, or weak during pregnancy. This was conveyed through (sometimes joking) comments

from coworkers or leadership, particularly around visible physical changes associated with pregnancy, such as "letting [herself] go" and "getting fat." The act of switching from Airman Battle Uniform (ABUs) or flight suits, to the maternity uniform during later stages of pregnancy to accommodate these physical changes was recalled by women as a distinctly difficult period. Known for being "comfortable but ugly," maternity ABU uniforms were associated with feelings of embarrassment and a loss of respect within the unit. One woman said of her experience:

> *Everybody wears flight suits and multi-cams and I had to go to the moo moo [maternity uniform] at the end. So, when I donned the moo moo, everybody treated me a lot differently. All they kept asking me about was what I was eating and, you know… pregnancy stuff…because it was just glaringly obvious because I was wearing a whole different uniform from everybody else. And a very ugly uniform to boot.*

Additionally, women spoke about a widespread perception within the organization that pregnant women purposefully manipulate the system or exaggerate symptoms in order to avoid work. One woman stated:

> *I still feel like there's the underlying, like, nervousness about telling people you're pregnant because 'you're just dodging deployment' or 'you just don't want to take P.T. tests'.*[2]

Another woman who experienced severe hyperemesis during her first trimester recalled her experience with her leadership:

> *I got pregnant and just went through this whole thing… you know, they*

[2] Pregnant ADSMs are exempt from deployments and physical fitness standards until one-year post-partum (Secretary of the Air Force Public Affairs, 2015).

> *[leadership] kind of treated me like I was a liar or faking…I would say that first month was our hardest month together [with leadership] because I think that they either thought that I was faking it, or that I was exaggerating, or they just couldn't understand.*

Other women experienced this stigma overtly, through direct comments from coworkers. One woman, who was following medical orders to avoid contact with gun cleaner and lead bullets during pregnancy, reported the following: *"After I was de-armed*[3]*, it was a lot of backlash… telling me I'm lazy and I'm trying to get out of work and all that stuff."*
In addition to reporting on the negative stereotype of pregnant ADSMs as lazy, less-disciplined, and purposefully manipulating the system to get out of work, women also spoke about coworkers' interpretation of workplace pregnancy accommodations as granting women an unfair advantage within the work place. Specifically, women indicated coworkers viewed pregnancy as granting women lesser amounts of work or responsibility, priority in coveted day-shift assignments, and more vacation time. Women recalled hostility from coworkers in the form of direct comments such as, *"Oh, I wish I could get pregnant so I don't have to come to work."* One woman reported overhearing a conversation:

> …a *new female that… came into the office and they were talking to her, and I think she was having problems on the [flight] line with someone. And he told her…"Do what the rest of the girls here do, get pregnant."* [4]

[3] Pregnant ADSMs receive medical waivers that relieve them of donning bulletproof vests and gun holsters secured by waist straps, due to hazards associated with poor equipment fit. Pregnant ADSMs are also relieved of handling and cleaning guns to avoid exposure to lead and other hazardous chemicals.
[4] Pregnant ADSMs who work on the flight line are re-assigned "off the line" or to a "desk job" during the duration of pregnancy as part of the Fetal Protection Program, which protects both mothers and unborn fetuses from exposure to workplace hazards, such as exposure to caustic chemicals or extreme noises.

Of note, not every woman in the current study described overt, personal experiences with negative stereotype and stigma during their pregnancy. However, women experiencing overall positive experiences in the workplace used language alluding to the known negative stereotypes. For example, when asked if she could recall a time when she experienced any negative consequences as a result of using an accommodation, one woman replied:

> *No, not at all. Honestly, even from coworkers, I haven't had anybody give me any animosity for missing work. They've all been nice to me and for my understanding they've all understood. No one has, you know, thrown any…bad words on my name or anything like that.*

Furthermore, every woman in the current study who spoke of an overall positive experience with pregnancy while serving active duty used language indicative of the belief that their positive experience was unique and uncommon among pregnant active duty Air Force members. This came in the form of phrases such as, *"I know I'm probably pretty lucky in comparison to other people…" or "I'm really lucky to have direct leadership that is very very supportive because I know some women don't have that..." and "… but for me it's unfortunate because I know that my [positive] experience is…few and far between."*

To demonstrate the pervasiveness of these findings among the study sample, 12 of the 30 women interviewed directly reported experiencing significant, persistent experiences of stigma, harassment, and bias related to being pregnant within the work environment, which negatively characterized their experience of pregnancy within the military. Specifically, enlisted members in this study were three times more likely to have a negative experience of pregnancy than a commissioned member, with nine of 15 enlisted members reporting significant difficulty with harassment, bias, and stigma related to pregnancy while at work. In

contrast, three of the 15 commissioned members reported significant negative experiences in these areas. Among participants in this study, enlisted members in the career fields of security forces and aircraft maintenance were most likely to report negative experiences during pregnancy.

Covering Behaviors

In response to the hostility and discrimination resulting from the negative stereotypes surrounding pregnancy, women reported taking action to avoid the associated stigma. Some women reported engaging in "covering behaviors," such as deliberately acting in ways meant to separate themselves from the negative stereotype, or to prove the stereotype itself wrong. Examples of such behaviors include delay in wearing the maternity ABUs for as long as possible, using care when scheduling doctor appointments so as to have absences noticed as little as possible, and pre-empting any assumptions by explaining symptoms to others. For example, one woman spoke of her experience as an instructor during her pregnancy:

> *So, I think even that the first day of class …I was in my normal ABUs but I made sure to point out that I'm not fat, that I'm pregnant. That I might look weird right now, but it's just because I'm pregnant. So, I felt the need to have to explain why I looked the way I looked to them. I felt more like I needed to explain myself in a way that I hadn't had to before.*

These actions enable women to remain less seen or less noticeable for later into her pregnancy. Some women reported preparing for pregnancy by volunteering for deployments immediately prior to pregnancy to avoid the perception that she was deliberately avoiding deployment. Other women described consciously moving into positions that would require less job task accommodations during pregnancy:

> *I was actually able to go into a position where, should I become pregnant, it wasn't necessarily a huge… a huge distraction to where my peers could potentially be like, "Ooops, now she's worthless. She's pregnant so she can't fly the airplane."*

The majority of women reported engaging in several forms of more extreme threat-response behaviors, which compromised personal safety and comfort in the attempt to avoid stigma. Some common examples reported by women in this study included continuing to wear combat boots (rather than use an accommodation to wear tennis shoes) despite swelling and pain in lower extremities, working extended hours (up to 16 hours per day) in extreme weather conditions (heat in excess of 100 degrees) after the first trimester, hiding pain or fatigue to complete job tasks or missions, and completing extensive and rigorous physical activities during military training courses in order to prove the stereotype wrong. For example, one woman recalled her experience completing a rigorous formal training during her pregnancy, and accomplishing her goal of using so little accommodations that her coworkers were unaware of her pregnancy: *"Man if I could do this…it's just showing a lot of folks… we're a lot stronger than you think we are. You know, we're capable of doing a lot of things."* Another woman stated, *"I've been really conscientious of trying to not change anything because I want to continue promoting this development, or this developing image that pregnant women, you know, can be seamless in our Air Force."*

Of note, even women who denied experiencing any overt stigma and who endorsed an overwhelmingly positive experience during pregnancy, indicated use of threat-response behaviors:

> *I kind of voiced my concerns [to leadership] about, you know, not wanting to be*

associated with any stigma… because I've heard other stories of women that their pregnancy was a little bit poo poo'd by their leadership… To be honest, I don't know how much of that [my positive experience] is due to that I proactively tried to kind of fly under the radar by choosing not to wear my maternity uniform until actually now at the point where I'm showing.

Military Pregnancy Announcements

One way in which women participate in threat-response behaviors is to delay or avoid pregnancy announcements. A unique factor pregnant ADSMs must navigate is the vulnerability associated with forced early pregnancy announcements. In accordance with Air Force Instruction and The Fetal Protection Program[5], women who suspect they are pregnant are required to confirm with military medical providers as soon as possible (Secretary of the Air Force, 2013). Within 24 hours of a military medical clinic administering a valid, positive, pregnancy test, the woman's commander and Unit Deployment Manager[6] is notified automatically through the generation of a medical "profile" or "waiver," granting women generic accommodations related to pregnancy, including exemption from deployments and physical fitness tests for the duration of pregnancy, as well as up to one year post-partum (Secretary of the Air Force Public Affairs, 2015). For women in career fields such as aircraft maintenance, pilots, and security forces, these pregnancy profiles may also call for an immediate (and sometimes drastic) change in job tasks to help women avoid exposure to

[5] The Air Force Fetal Protection Program is designed to address workplace safety requirements specific to protection of a mother and unborn fetus. The program requires ADSMs to confirm pregnancy with military medical clinics as soon as possible and report to Public Health for an Occupational Risk Assessment within 24 hours of a valid, positive, pregnancy test (Guess, 2012).

[6] A Unit Deployment Manager is responsible for all administrative functions related to tracking and ensuring readiness for deployment among military members.

caustic chemicals, noise violations, and the unknown effect of flying maneuvers on the fetus. These unique military requirements, and automatic pregnancy notifications, leave women with little control over the initiation of stigma, as well as the emotional vulnerability involved with potential early-pregnancy miscarriages.

Some women reported having inside knowledge regarding which personnel within the unit would receive the automatic pregnancy profile and recalled taking action before reporting to military medical centers to ask these specific individuals to keep the news quiet. In this way, stereotype threat behavior is used to delay the onset of stigma, as well as potential emotional vulnerability. In other situations, women reported leadership respected this private information, as well as the woman's wishes to not share the information with the entire unit, until she felt comfortable. However, women in career fields which required immediate and significant job task changes in accordance with the Fetal Protection Program (i.e. aircraft maintenance, security forces, and pilots) reported significantly less success in employing covering behaviors, given the significant and immediate change in job task duties (i.e. non-flying status for pilots, moving from hands-on maintenance work with planes to a "desk job" among aircraft maintainers, and de-arming for security forces). These women reported having to announce their pregnancy to coworkers when confronted with questions about why she was unable to perform her usual job tasks. For several of the women within this study, the risk of stigma associated with pregnancy-associated job task changes led them to delay reporting to military medical providers and to conceal their pregnancy, despite medical risks that may have ensued. For example, one pilot recalled:

> *I actually hid my pregnancy for like three weeks so I could keep flying in the first trimester… keep doing a couple things. And then the moment that I told*

> *the Air Force and came out that I was pregnant to my squadron commander and the unit deployment manager and everybody, my name went into that DNF (do not fly) box and everybody could kind of figure. They guessed that, even if I didn't want to tell them.*

Another woman reported delaying confirming her pregnancy for a month, while continuing to work with chemicals. She stated, *"I was scared to tell them [leadership and coworkers] because I knew they were going to hate me."* Furthermore, the widespread practice of delayed pregnancy confirmation was apparent through the many ways in which women spoke of others who had used this technique, *"I've known…crew chiefs who didn't want to say something because they don't want to be put on desk duty. But at the same time, they shouldn't be breathing in jet fuel."*

Confusion

Another major theme emerging from findings was significant confusion around resources available for women during pregnancy, maternity policies, and accommodations. Overall, women reported that both they, and leadership, were often unaware of resources, and unsure about how to interpret and enact non-specific maternity policies around use of accommodations.

Unaware of Resources

Women consistently indicated feeling as if they were unaware of the resources, policy, and accommodation options available to them during maternity. One woman stated:

> "*…even the flight medicine clinic on base didn't tell me about it. I heard it from a pregnant mom, that they actually have some really good resources at the Family Advocacy about what to expect while you're expecting… They've*

> *got lactation consultants, at least at my base here, that will come do free visits with you. So, there are a lot of resources that I was actually completely unaware that existed on base."*

Other women spoke about being unaware of a wide range of resources and accommodations such as the Career Intermission Program, which would have enabled them to take time away from their active duty commitment to start a family. In addition, women were not aware of new AFIs requiring units to have designated breast pumping rooms *separate* from restrooms, insurance guidance allowing women to choose a breast pump model that worked best for them, the ability to wear tennis shoes instead of combat boots as, nurses that made home-visits to check on both mothers and infants, medical tests covered by insurance that were not offered by military medical providers, and pay available for members whose bases did not have Child Development Centers[7].

Women's experience with the wide-spread lack of knowledge and information around resources and accommodations for pregnancy resulted in feelings of immense responsibility and pressure to research regulations to enable effective advocacy of needs:

> *"Just where it's not left up to, I don't know… if you found out the best information or not… it's kind of like, if you found out about this secret hidden gem, good for you. If you didn't know, that was your fault for not finding it, or taking advantage of it, instead of it being put in a place where everyone could find it."*

[7] Childcare centers, located on-base, which cater to service members needs by offering full-day, part-day, and hourly care for infants and children. Payment for services is based on the service member's rank and is often less expensive than civilian childcare (Military Child Development Centers, 2018).

This was especially important for women whose leadership did not have plans to implement a breast pumping room and stated intention to have women breast pump in a restroom. Yet other women reported medical personnel did not offer them medical tests covered by military insurance, the option to choose among more than two breast pump models, or the accommodation to wear tennis shoes, until they had become aware of these options themselves and asked providers directly.

> *"If I hadn't been digging through different AFIs, I wouldn't know these things. So, I'd say, you know, it'd be nice that maybe there was a format that could give, you know, they can get women, to where they can see everything instead of having to dig through separately. Just trying to find, you know, when you can wear tennis shoes. And when, like, talking to supervision… how you can get accommodations for breasts pumping in a private setting. You know, in the restroom not being one of those places. …it's really important to read all of the rights you have when pregnant."*

Yet another woman indicated she would give the following advice to other pregnant service members: *"The advice I would give to other women would be to definitely do your own research because a lot of people will not know policies or they'll be misinformed about stuff and definitely advocate for yourself at the doctor's office."* Furthermore, due to the ambiguity and lack of information surrounding resources and accommodations available during maternity, women reported relying on networking to gather information critical to their navigation of the military system during this time. Specifically, women reported relying heavily on connections with other pregnant (or recently pregnant) military members through a variety of online forums, coworkers within the office, and friends. The majority of women

acknowledged both the critical function of networking, as well as limitations of relying on this method of information gathering. Most commonly, women expressed a desire for leadership and medical personnel to become more educated in this area, as well as a single publication, or place on base, which would organize and record all available resources and accommodation for pregnant service members. One member stated of her experience:

> *"I felt like I figured out what was wrong mostly through the other girl [co-worker]or doing my own research. And I think that's not right. I think that's what supervision is for. They are supposed to sit down with you and tell you …what your options are. And I feel like I wasn't given that. And I think that's very important for anyone.*

Ambiguous Policy

Confusion experienced by women extended past resources and accommodations available, to encompass the larger, overall policies surrounding maternity within the Air Force. Women indicated that both they, and leadership, were often unaware of, or confused about how to interpret and enact non-specific maternity policies. This confusion began almost immediately for some women. When reporting to Public Health for an Operational Risk Assessment after confirming their pregnancy with a military medical clinic, women reported that the resulting guidelines provided to their leadership around workplace hazards were not inclusive and lacked actionable language. This left women vulnerable to the possibility of leadership regarding the language as simply information, rather than a recommendation/notification that women needed to be removed from environmental hazards. For example, one woman stated:

> *"What I'm trying to get at is what was written on there [profile] wasn't explicitly*

saying, 'Hey, this pregnant woman cannot work around oil or coolant and handle all these hazardous waste items.' It was just, these are the risks in the workplace. And I guess that was left to the interpretation of how leadership wanted to take it. But it was not explicitly on there, what should and shouldn't happen as far as my job is concerned… It was just information provided to them, which they know about because we have so many rules that we have to follow for people who, you know, anybody who's in the shop, regardless of if I was pregnant or not. But it just didn't specify."

A clear and consistent concern among pregnant members was the lack of policy for late-term pregnancy accommodations. Specifically, women reported anxiety around the increased fatigue and pervasive feeling of discomfort during their last week of pregnancy, and the fear of going into labor while on-duty. Women reported no guidance was provided for increased accommodations during this time, leaving it up to leadership to determine if she should work up until she began labor (perhaps in the office), or if she should be granted days off/the ability to work from home. Without clear guidance in this area, the threat of the afore-mentioned stigma created anxiety and guilt around the decision to ask for reduced work hours during this time. Some women reported working through pain and fatigue until they began labor.

"And maternity leave, as defined in the leave policy, is defined as the day you give birth, or the day that you're discharged from the hospital. That's when it starts. So, it doesn't address beforehand. And I just kept trying to find something saying, well can I take like a day or two off before my due

> *date? I don't know when I'm going to give birth, so I don't want to have, like, my water break at work."*

Finally, a significant area of confusion emerged around reduced work-hour schedules for pregnant service members. This issue is perhaps most succinctly stated by one woman, who reported she continued to work 12-hour shifts well into her third trimester because, *"The profile says it is recommended 8 hour days, but we can work up to 12 hours. It just says recommended 8 hour work days on the profiles."* The most common outcome of the ambiguous work hour wording in profiles among women in this study was continued long work hours until late into pregnancy, despite sometimes heavy physical and emotional tolls. Some women recalled eventually experiencing intense physical fatigue or pain, which necessitated them to approach leadership with a request for reduced workhours. These requests were met with mixed support and stigma-driven responses from leadership. One woman recalled leadership's supportive response to her request in the following way:

> *"…in my job we work almost 12 hours and I think I did that until I was 8 months pregnant…And my waiver said, you know, eight-hour workdays and don't let her stand too much. But they [leadership] waited for you to come to them, and I thought that was also very awkward. I had to be like…I had to pull the, 'Hey sir, just curious, my waiver says I can work eight hours if I want to" and he did say not to come in until this [later]time. And I was surprised that they [leadership] didn't expect that [for me to keep working*]. *And I was surprised my boss never like said, like, 'stop working.' But it wasn't until I asked to leave early that they were literally like 'you can leave whenever you want'."*

Yet another woman recalled leadership's unsupportive response, which appeared to be driven by the stigma that associates pregnant women as having an unfair advantage, with less responsibility and work:

"*Usually we don't have a lot of work but they would kind of force me just to have to be there because I feel like, because they don't get to leave and go home early so they don't feel like I should either. And that caused a lot of problems with like, you know, I'm just miserable and sick and they're just making me sit at work and I'm not doing any work."*

Interpretation of Accommodations

Pregnant service members did not always perceived leadership interpretation of policy as helpful or effective. Leadership interpretation of policy felt into one of two categories, described as need-based interpretation and mission-based interpretation.

Need-Based Interpretation

In need-based interpretation, leadership was perceived as interpreting policy based on the needs and safety of the service member (often viewed as "lenient" interpretation of policy). For example, several women reported leadership would notice she was feeling ill and direct her to leave early for the day, repeatedly, throughout her pregnancy. Other women indicated that, although the official pregnancy profile recommends modifications to exercises done during unit physical training, leadership would excuse her altogether from the activity and allow her to go home instead, due to known fatigue. One woman stated of her leadership:

"…normally, when you're sick, they automatically make you go right to sick call. You have to sit out in the doctor's office for two to three hours before

> *anybody even says, 'OK, she's too sick' and to actually send me home. But since I've been pregnant, they [leadership] don't really harp on that stuff. If I'm sick and they can see it, or I'm telling them I don't feel good, they will find someone and they honestly will send me home."*

Yet another woman, experiencing physical complications with her pregnancy, recalled how her leadership interpreted the pregnancy profile recommendation of eight-hour workdays:

> *"… so, at the very end of my pregnancy they [medical providers] thought I had preeclampsia. So, at that time I had just got a brand new supervisor. And at that time, he was like, 'I'm not doing this. Go home… have your phone with you at all times. Have your uniform ready to come in at all times.' You know, do your work from home… You do not need to be here when you're going to be on a computer, when you can be on a computer in your house."*

As indicated in these examples, leadership who engaged in needs-based interpretation of policy were perceived as "caring" and "understanding." Women routinely referred to leadership who engaged in need-based interpretation as individuals having experience with children or being female (i.e. *"they have children/are pregnant, so they understood"*).

Mission-Based Interpretation

In mission-based interpretation, leadership was perceived to operate from the understanding that pregnancy should be accommodated only with express direction from a medical provider, and accommodations are granted strictly based on language within the pregnancy profile. For example, leadership may reduce workdays to eight hours, but not allow a pregnant member to leave early if feeling ill or fatigued, because this language is not

expressly written into the pregnancy profile. One woman spoke of her experience with increasing fatigue and physical discomfort in the last trimester of her pregnancy:

> *"Being more tired, getting bigger, obviously the closer I'm getting it's taking me 10 times longer, you know, to get up in the morning and do regular tasks. And not having the support from them [leadership] as who was modifying my work schedule… So, I'm not able to have half-days or whatever. Leadership is, I guess, in the position of, again, it's at their discretion to decide how much time that I should be at work or, you know, the medical aspect of… I understand a pregnancy is not a medical condition. Like, you're pregnant. Nothing's wrong with you. But to pretty much negate the fact that you're building another human. You're carrying a whole other person. So currently I'm at eight hours, but everybody is at eight hours in that area and that's the standard. And it's just… it's long."*

Yet another woman recalled asking to be kept on a day shift to facilitate the frequent, maternity-related medical appointments, and increasing difficulty sleeping during her pregnancy. She recalled the following:

> *"I had asked to be strictly on day shift and my leadership was not hearing it. He was like 'No, everyone has to rotate and everything.' So, I was thinking that, especially with me being pregnant, you know, I'm always tired. So, why are you going to put me to work night shift? You know, when I could possibly pass out… What if I'm tired and possibly fatigued or something and I'm working at night, so…"*

Review of results indicate it's possible leadership engaged in mission-based interpretation of policy are influenced by the negative stereotype and stigma associated with pregnant service members. These leaders may be acting to reduce animosity among coworkers by preventing the assumption that pregnant members receive reduced work hours, less responsibility, and advantageous work shifts. As is conveyed by the examples above, leadership engaged in mission-based interpretation of policy were often perceived to be *"uncaring," "rigid," "unfair,"* and unaware of the difficulties associated with pregnancy. Of interest, women referred to leadership who engaged in mission-based interpretation of policy as individuals who were more likely to be single, male, and who do not have children.

Navigating Changes in Job Tasks

Leadership interpretation, and enactment of policy also emerged as a critical factor in influencing how women experienced the use of accommodations throughout pregnancy. The most significant workplace accommodation for maternity among women was changes in job task or position, in line with the Fetal Protection Program. While women in career fields considered to be more "desk jobs" (i.e. intelligence, finance, logistics, engineer, personnelist, etc.) reported very little change to job tasks during pregnancy. In contrast, women in career fields such as aircraft maintenance, security forces, and pilots, reported the most significant changes in job tasks during pregnancy because working in or around planes, or donning bullet-proof vests, gun holsters, and cleaning weapons, exposed both women and fetus to potentially toxic chemicals and loud noises. For these women, leadership was responsible for re-assigning tasks that were safe to complete during pregnancy. Findings indicated that, contrary to common stigma and stereotypes, women remained unequivocally dedicated to productivity and had a desire to remain a contributing member of the unit during pregnancy:

"I didn't want to like stop work or anything. I had requested to go to, like, a different section where I could still like work and stuff. I wanted to, like, do stuff that's still like meaningful to the mission."

However, women did not always perceive leadership to be aware of these needs and desires.

Unaware leadership

Many women reported their leadership failed to provide them with the opportunity to engage in meaningful tasks that contributed directly to the mission during pregnancy. Some women reported being re-tasked to mop floors, remove trash, and otherwise clean the building which housed their unit, a job usually reserved for newer Airmen, many years younger in rank and experience. Other women reported feeling cast-off from their high-paced, hands-on units into "desk-jobs," in which administrative tasks were quickly completed within four hours of the eight-hour workday. These experiences led women to feel under-utilized, under-valued, and forced into fulfilling negative stereotype roles of working in a position of greatly reduced responsibility. One woman, having been moved to a desk job within her squadron, stated of her experience:

"I have to sit there in training and only do a limited amount of work and not really broaden my experience of my job when everyone else is. So, I feel like I've kind of been teased about, like, just being in training. And like my job's not important and I don't do a lot. But that's not, you know, my choice. I was put there."

Yet another woman, who was unable to work with toxic chemicals during pregnancy, and was tasked with building clean-up, stated of her experience:

"So, in a way, it felt like I was being punished because I… like, you guys [leadership] really can't find anything else for me to do, other than to do an Airman's job? Because they have a house mouse and they rotate A1Cs [E-3] that are in-processing. They're the ones that do that house mouse job. So, to have a [significantly higher ranking individual] doing it… normally if you have a [significantly higher ranking individual] doing building clean up, it's likely because they got trouble."

In contrast, some women reported having leadership who were mindful of, and prioritized, her desire to engage in meaningful tasks and remain a productive and valued member of the unit during pregnancy.

Supportive leadership

Women with supportive leadership reported being involved in discussions with leadership regarding how she might balance her career progression and personal safety during pregnancy. As a result, these women reported feeling as if they were making valuable contributions to their units while engaged in alternate job tasks. One pilot recalled leadership taking an active interest in researching her previous experience before re-assigning her to a managerial/leadership role during pregnancy:

"I felt like I was able to shine more in this job than I had in years [as an operational pilot]… I don't get lost in a 2-300 person squadron. They [leadership] thought, with my background that, you know, I can get even more responsibility.

Another pilot spoke of her experience with being re-assigned to a "desk-job" as follows:

"So we have a pretty constant rotation, so it's more about me being able to take on

> *more of the… office duties and let some of my coworkers go out and fly… So that way, during my second trimester, when I can fly, they [coworkers] take some of those ground duties from me so that way I can fly, since I have such a limited window".*[8]

Leadership Styles

Aside from complete change in job tasks during pregnancy, experienced by women in select career fields, *all* women in the current study reported using some form of accommodations during pregnancy, such as reduced work hours, wearing the maternity uniform, leaving work for maternity-related doctor appointments, and modified physical training. Differences in approaches to interpretation and enactment of accommodation recommendations highlighted three separate leadership styles: 1) Proactive and empowering, 2) authoritarian, and 3) lack-of-knowledge/acknowledgement.

Proactive and Empowering

Leadership who were considered proactive and empowering in interpreting/enacting accommodations made it clear to women that accommodations were available to them, prior to the woman approaching leadership to ask. Leadership in this category were often described by women as taking time to meet individually with women, soon after receiving the initial pregnancy profile, to collaboratively plan the use of accommodations throughout pregnancy. During these meetings, women recalled that leadership set clear expectations, encouraging women to put their health first, discussing when reduced-hour work schedules would become

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[8] Pilots must meet strict flight hour requirements to maintain competency and eligibility to fly planes within the military. Participants who were pilots reported policy preventing pregnant women from piloting aircraft during the first trimester, as well as the first three months after a child is born.

necessary, informing her of leadership preferences for "permission asking" and scheduling for medical appointments during the duty day, and assuring the pregnant service member that leadership would be supportive of her needs throughout the process. Furthermore, leadership in this category often followed-up with women, repeatedly reminding women that they were free to use accommodations that were offered.

> *"Yeah so, she [supervisor] has reminded me multiple times like, 'Hey, feel free to leave if you're just feeling tired or whatever.' I never had to actually necessarily take her up on that. But that definitely has been an option and, again, repeated over and over so that I know that it's available if I wanted it."*

Another example of proactive interpretation/enactment of accommodations is as follows:

> *"I went to work, and my supervisors and my leadership were all like, 'Hey, if need anything, if you feel like you can't come in because of being sick or just too tired, if you need to work half-days, let us know.' If there was a formation, they told me I had the choice to go. It wasn't… mandatory fun for me. Things like that, so I felt like my leadership, and my office, really catered to making sure that I was ok."*

As indicated by this last example, this proactive approach by leadership conveyed to women that they were not expected to remain unchanged during pregnancy. Although women falling under leadership in this category still expressed anxiety related to the stigma and negative pregnancy stereotypes, women also reported this approach helped to reduce some of the guilt associated with seeking to use needed accommodations, and helped them to feel cared about, and included, by their units.

Another important distinction of leadership falling within the proactive/empowering interpretation/enactment of accommodations category is the way these individuals avoided making decisions on behalf of women during pregnancy. Nor did leadership in this category question a woman's intent or decision to use accommodations within the established policy. This approach conveyed trust and respect to women, while empowering her to make decisions to protect her health and well-being during the pregnancy period.

> *"We had one instance where we had to cover down on a TDY[9] and my leadership kind of brought it up to me. It was about my six-and-a-half months point… they didn't want to send me. They wanted to make sure they had someone else to go, but they were still bringing it up to me as far as, you know, I wasn't excluded from the consideration. I definitely am seeing them artfully balance the, 'You're pregnant so we don't want to put too much stress on you, but we know you're still capable'… being very cognizant of pregnancy and what that looks like for different people, but also not excluding people, or officers, or anything, from potential opportunities."*

Leadership who did not question a woman's integrity or intent while using accommodations also helped to reduce women's anxiety resulting from the stigma and negative stereotype around pregnant women being "lazy" and "trying to get out of work."

> "*I've had a lot of appointments this pregnancy, with seeing the homebirth midwife, and the midwives at the hospital. And I see a chiropractor, and all these different people. He's [supervisor] been very flexible with my appointments and not really even, not necessarily saying, like, 'Provide a*

[9] Temporary Duty: Military duty at a geographic location away from a member's permanent duty station.

doctor's note' every time.' And saying, you know, 'Go when you need to go and just keep me in the loop about what's going on'."

Authoritarian

Leadership who were considered authoritarian in interpreting/enacting accommodations made decisions on behalf of women regarding job tasks and workload during the pregnancy period. Leadership in this category were often described by women as well-meaning, but their actions were experienced as conveying the message that a pregnant woman was, in some way disabled or less capable of work, leaving women to feel under-estimated. One woman described her experience with coworkers while continuing to carry out daily, miscellaneous tasks within the unit:

"I remember that the one time they saw me stacking chairs, they came over, grabbed the chairs and told me I shouldn't be doing that. And then when I was TDY, I was taking out the trash and there was some male staff sergeants who said, 'You shouldn't be taking out the trash.' ... I thought to myself, 'I'm capable of taking out the trash. I'm not disabled, I'm just pregnant'."

Another woman summarized the thoughts of many when describing her experience with leadership reducing her task load and not granting requests for additional work: *"Leadership should definitely be more open to the fact that women do get pregnant, but we're still fully capable of working. We're not any less capable."* Leadership in the authoritarian category were also described as holding power over women's use of accommodations, insisting on being the final authority in determining if a woman needed accommodations recommended to her by medical personnel. One common example, expressed by many women in various statements, is as follows:

> *"Well yeah, my immediate supervisor… like I said, has made it seem very difficult for me to ask to leave early. So, she just makes me feel like I really have to give…an extensive reason why I should go home. And really, I should just be able to tell her I don't feel good and she had the understanding, you know, that I don't need to be there because my job is…I'm not doing anything."*

Yet another woman's experience echoes that of many women, who described leadership as distrustful of her intentions to use accommodations:

> *"…My supervisor… I remember an experience I had was I got a waiver to be able to wear tennis shoes and, you know, I'm obviously…I was in my maternity ABUs and I have my tennis shoes now. And right when I walk into work, she was like, 'Well, I need to see a waiver' and made it seem like I don't need to be wearing tennis shoes and…I had to go and... I had my paper waiver and she's like, 'Well that's not the official documents in the system.' And so I had to log on to my computer, even though I had…my temporary waiver, she made me go and pull up my official waiver that I could wear tennis shoes. And obviously pregnant women wear tennis shoes, you know, when they're in the military because of circulation problems and stuff. So, I was just like, 'What the heck?' You know, I'm not wearing tennis shoes to be cool, you know."*

As indicated by the above examples, authoritarian leadership interpretation and enactment of accommodations was perceived by women as uncaring, distrustful, and disrespectful of a woman's ability to make decisions regarding her own health and well-being, within the established maternity policies.

Lack of Action/Acknowledgement

Perhaps the most concerning leadership interpretation/enactment of maternity policies were those described by women as failing to acknowledge the need for accommodations and failing to act on enacting medically necessary accommodations. For example, leadership in this category required women to continue asking to leave early whenever they were feeling ill during the later stages of pregnancy, rather than enacting a predictable, reduced-hour schedule. In these cases, women found themselves in a position of repeatedly advocating and asking for accommodations out of necessity, which served to increase the guilt and anxiety associated with the negative stereotype and stigma around pregnancy.

Of note, leaders in career fields in which women experienced significant job-task changes with pregnancy, such as security forces and aircraft maintenance, more often employed this style. In several cases, women spoke of leadership failing to acknowledge medically necessary accommodations:

> *"They wanted me to still arm up[10], when my specific instructions from medical…*
>
> > *you know, people who are higher rank than my supervisors, told me 'Hey, we don't want you to be around lead or CLP [gun cleaner] because it's really harmful.' They [leadership] tried to get me to wear gloves and a mask to clean my weapon. And I fought them against that, too, because the CLP gets on you, or in the air, anything like that, you're still breathing it in. And it gets on your skin."*

When speaking of her experience attempting to attend prenatal medical appointments, one woman recalled: *"…And they're [leadership] like, 'Well if you don't come to P.T. [unit*

[10] Donn a weapon holster and protective gear, such as a bullet-proof vest, and carry a weapon.

physical training] just because of the baby appointment, we're gonna give you paperwork'[11]*."* As demonstrated in these excerpts, leadership in this category was perceived as disregarding new or unique needs that a woman may experience as a result of pregnancy. In particular, women experienced difficulty using necessary accommodations that required modification to job tasks or responsibilities. These experiences are concerning because they occurred almost exclusively among women whose usual job tasks and responsibilities required exposure to chemicals or sounds hazardous to a developing child. These women reported feeling unable to act in ways that protected their health and well-being during pregnancy.

Medical Care

Medical care is another critical component in ensuring health and well-being during pregnancy. Among active duty women in this study, experiences with medical care emerged as a significant factor in how they characterized the overall experience of being pregnant in the military. Specifically, most women reported distrust in military medical providers. Unlike other themes within this study, distrust in medical care appeared separate from, and uninfluenced by, the central theme of stigma and stereotypes surrounding pregnancy within the military.

The majority of women in this study reported being seen by off-base, civilian, medical providers through their military medical insurance, due to their bases lacking medical services related to maternity care. In total, 17 participants were seen by off-base, civilian providers for the duration of their pregnancy. In these cases, women were able to select their provider from a list of civilian practices accepting TriCare military medical insurance. Nine

[11] Disciplinary action received by military members in the form of written statements, detailing wrongful actions, and the punishment that may be expected. Formal Letters of Reprimand (LORs) remain in a service member's record.

participants were seen by military medical providers. In these cases, participants reported to the military medical clinic and were assigned to a medical provider who was available on the day and time of their appointment. Three participants reported seeing a mix of civilian and military providers due to geographic re-location during pregnancy, or personal decisions to privately pay for civilian medical care while simultaneously seeing military medical providers, as required by policy. One participant saw a civilian provider in an on-base medical clinic.

Women seen by civilian providers reported this was preferred due to the lack of trust they felt with military providers. Women currently receiving maternity care from military providers voiced mixed feelings of trust in the medical system. Of note, the few women who did not report distrust of military medical providers indicated they had grown up in a military family and had seen military providers almost exclusively throughout their life. Additionally, most women who were seeing military medical providers for their maternity needs were receiving care at large, military, hospital facilities, employing a mix of Army, Navy, and Air Force providers.

Distrust in Military Medical Care

The overwhelming majority of women in the current study expressed distrust in military medical providers. Results indicate this distrust is grounded in frequent, negative, experiences with military medical providers prior to pregnancy. The way in which women described trust in medical care related to maternity is perhaps best summarized by one woman's responses:

"I've had some pretty negative experiences with military doctors. So, with

something that's as important as birthing a baby, I did not want to be seen by a military doctor."

The extent of the distrust women experienced with military medical providers is demonstrated by women who reported that they would, or did, hire private civilian medical providers to monitor their health during pregnancy, while continuing to see military medical providers, as required by Air Force procedure. One woman reported having her privately hired, civilian, midwife attend the birth of her child in a military medical facility in order to monitor interventions and explain procedures. Another woman reported paying privately to have civilian medical providers help her with the home birth of her child. *"I 100 percent wanted to go with a civilian provider. Like, that was even… if I had the opportunity to get care on the base, I would be speaking with a civilian provider."*

The most prominent theme among women regarding distrust of military medical providers emerged as women feeling as if their symptoms were not listened to, or taken seriously, during medical appointments. All but one participant in this study spoke of negative personal experiences, or experiences of troops they directly supervised, with military providers. This theme is perhaps best described by the following examples: *"They [military medical providers] miss things and misdiagnosed things. They didn't normally listen,"* and, *"Military medical providers don't take you seriously or they just… 'Here's some ibuprofen and some water and you'll be fine'. And so, I prefer seeing civilian providers."* When speaking specifically of maternity and family-planning experiences, women who were being seen by military medical providers continued to report similar experiences:

"And I did not trust any of the providers on base in the women's health clinic. Anytime I had an issue, it's like I had to prove there was something

wrong… I went into the emergency room (ER) on base and said 'something's wrong' and they were like, 'nope, it's just normal pregnancy symptoms.' They sent me home. And I literally went to [civilian ER name redacted] that night and got admitted with pre-eclampsia."

Another woman who experienced significant physical distress during pregnancy reported her experience with seeing military medical providers:

"And med group [military providers] pretty much told me to deal with it even though I was pretty much vomiting every meal I ate at work all day. I went to the [civilian] ER once for dehydration because I had vomited so much. So, they [civilian providers] gave me the Zofran and fluids to help rehydrate me. And then med group [military medical providers], finally, after being seven months pregnant, gave me a prescription for Zofran to help with the morning sickness. And it wasn't an issue after that."

Compounding a view of military providers as misdiagnosing or ignoring important symptoms, women also voiced concern that military medical providers were less experienced in maternity issues than civilian providers. Women reported reasoning that, because there were few women in the military, military medical providers were not as experienced in providing care to women. Whereas civilian providers, who specialize in women's health and maternity, are more likely to see a broader variety of women and issues. Women's experience with military medical providers appeared to confirm these suspicions:

"So, whenever I've been to a military provider for anything O.B.G.Y.N., it feels awkward because, it's like 'I haven't done this in a while' and you're like, 'Off-base referral please!' You want somebody who's seen…so many

a day that you do not feel awkward in those places and so…I want someone who's seen so many that they couldn't possibly be shocked or concerned by anything that they're seeing that day."

Congruent with the perception that military medical providers were less experienced in women's health than civilian providers, several women spoke of fears specifically related to military medical providers being less aware of, or familiar with, best medical practices in maternity care. One woman, seeing military medical providers and preparing for her birth stated the following:

"Yeah, certainly on the medical side, like, making sure that the providers are up to date on the … latest information from the American Gynecology and Obstetrics Association. That would be really good… making sure that they were up to date and actually following those recommended practices to avoid unnecessary death. So that's one of the things, I'm going to have to really advocate for myself. Just to make sure they are actually monitoring and that I'm not losing a ton of blood and making sure they understand that lying on your back with your feet up is not necessarily the best position to push in."

Women's fears surrounding best medical practice among military medical providers appeared to be validated by women in the study who had recently given birth in military medical centers. Many of these women spoke of their concerns regarding a lack of options during the birthing process, as well as the perceived *"high rate of intervention"*, and the lack of information provided to them about decisions being made. *"I felt like it was very by the*

numbers, strict and rigid. If I wanted to have, you know, just a different kind of delivery experience, those options are not available to active duty parents." Another woman stated:

> *"And I wanted to go with, like, more of a… not a midwife, but more like a different kind of a hospital atmosphere. They have ones [hospitals] that have a birthing tub, and ones that have less interventions and things like that… but I wasn't able to do such."*

As alluded to in this previous example, many women reported they were aware of *"high intervention rates"* in military medical centers during the birthing process and felt as if they were unable to have a say in the medical care they received. Furthermore, women recalled they were not provided with information regarding the decisions being made on their behalf in military medical centers. Reflections from three separate women, as they recalled their experience with the birthing process at military medical centers, serve to highlight these unique aspects of this theme: *"I just felt like we were getting pressured to do things we didn't feel comfortable about with her [my daughter], and they weren't very forthcoming about why I was high risk [pregnancy]."* A second woman stated: *"Or even having birthing pools, or less intervention, and less pressure."* A third woman reflected on her realizations during the birthing process:

> *"Just the number of interventions is a lot. And it is pretty challenging. I mean, you know, being in the military…because you looked at a board [in the hospital], and every single person… every single female that was listed on the board that was giving birth, all of them except for me had a C. section. They were really pushing for me to have an epidural. They were really pushing me to have a C. section, and that kind of thing."*

Finally, women receiving maternity care from military providers reported being unable to research and choose a provider that they felt most comfortable with. Rather, they reported to the military medical clinic for each appointment and saw the provider available on that day. Women receiving maternity care through military medical clinics were more likely to report seeing a handful of different providers throughout their pregnancy, which interfered with their ability to build a trusting relationship with a military medical provider. Women in this situation reported feeling less known by their providers, and having to repeat their story, or experience of pregnancy, at each maternity appointment. The repeated experience of re-introducing herself, and her experience, to each new provider took time and attention away from discussing emerging symptoms that would otherwise stand out from what was normal for each woman. The importance of choice and consistency in provider during the pregnancy process is highlighted by the following statements from participants:

> *"Part of seeing women's health [military medical clinic] is that I wouldn't see a single doctor. So, every time I went to women's health, I saw a different provider. I had to go through the whole spiel about what I'd been going through the entire time."*

Another woman stated:

> *"But we P.C.S.'d and we came to [base name redacted] and I had no choice because I'm [TriCare] Prime and they have a clinic here [on base]. So, I had no choice in providers. I was just assigned to a team and then I just saw whoever was available when I came in. I met the person who delivered my baby, like, a day before."*

Trust in Civilian Medical Care

On the other hand, most women, including those receiving military medical care, indicated they felt more trusting of civilian medical providers for their maternity needs. A contributing factor to this trust is the ability of military woman who are referred off-base for care to research and see a medical provider of her choosing. For example, a woman stated:

> *"I thoroughly enjoyed having a civilian doctor. I feel like I had a little bit more say in what happened, and where I wanted to be seen. I researched the doctors more than just who was ever on the base*."

In general, women also perceived civilian medical providers to be more competent and experienced in maternity and female issues, for reasons perhaps most succinctly summarized by one woman's remarks:

> "I *think it has to do with the whole, they aren't… unlike specialists in the civilian area who get not only the military members that they serve, but also the general populace that they serve, they [civilian providers] have a lot more experience with dealing with these kinds of issues. Whether it's a simple gyno check, you know, for the pap smear, to answering those more intimate questions that I feel the military doctors might not be able to provide because they're supposed to be so generalized."*

Furthermore, women perceived civilian providers as "*more up to date on [medical] policies"* and *"more forward thinking"* about maternity medical care and the birthing process. For example, women spoke of civilian hospitals offering birthing tubs, allowing them to labor on exercise balls and both on or off of a hospital bed, encouraging delayed cord-clamping, and one hour of direct contact immediately following the birth of their child.

In general, women spoke of their experiences with civilian providers as more positive compared to their previous experiences with military medical providers. Women wanted to feel heard and respected during appointments. Women receiving civilian care were more likely to report feeling unhurried during appointments, and to be included in medical decisions. Specifically, women reported their providers took time to thoroughly explain medication and intervention options, creating a collaborative decision-making process. One woman recalled, *"That they [civilian providers] actually listen to you and don't just disregard everything you're saying and think they know better."* Another woman stated, *"I feel that the civilian providers also spend more time with their patients as opposed to the military."*

Psychological Changes

The priority of personal safety and health for pregnant ADSMs is illustrated by women's experiences and preferences in prenatal medical care. Specifically, results of this study indicate women experienced a distinct shift in focus toward prioritizing the protection of their personal safety, health, and well-being during pregnancy. This fundamental shift in focus, in turn, shaped new leadership approaches, and deepened women's understanding of the Air Force value of service before self.

Shift in Priorities

Women experienced a shift in focus during pregnancy, evolving from a "mission first" perspective prior to pregnancy, toward a heightened awareness/increased priority of personal health and safety during pregnancy. This theme emerged through women who spoke directly about their awareness of this shift, recalling that they were less likely to participate in unit functions or job tasks that posed physical risks, increased their physical discomfort, or interfered with their psychological ability to prepare for the birth of their child during

pregnancy. These statements suggest women believe that those who act in accordance with this shift in priorities may face stereotypes related to being viewed as a less productive, or weaker, member of the team:

> *"My personal feelings were, I wanted to do those things because I want to support the team, but just also having the wisdom to say I shouldn't do these things, or I have something else, a new baby in my womb, that's a little bit more important than showing up for my team right now. So for me it's like, being able to serve my country to further freedom is a really big reason why I serve. So now that I have something else demanding a lot of my time, I wouldn't say that it [motherhood] changed my identity, but it changed my priorities. And so that's still really important to me [serving my country]. But I know what's really important to me, too, is this new baby that I have that probably, at least more immediately, has more needs than that other part of… my job, really*."

It is important to note that many women did not express feeling as if they were abandoning the value of service before self, or dedication to the mission. Rather, women spoke about pregnancy, and family, necessitating a change in how they approached their military service. One woman spoke eloquently of her experience in this area as follows:

> *"… in the sense that you have a lot less ability to be all about yourself. I mean, from a leadership perspective, you can't throw yourself at every award… or you can, but that might not necessarily be what's best for your family life, to go all in and become like that uber, you know, Officer of the Year, in whatever category. As far as, like, racking up all the volunteer work,*

and leading all the huge projects, and all those other things that are probably really not really realistic for somebody who's got a family life… So, you know, where you have to sacrifice a lot of what typically you thought you should be doing in order to be a better officer."

Of interest, the theme of changing priorities emerged strongly, even among women who did not speak directly of having the experience. It is possible the afore-mentioned negative stereotype threat of being viewed as less dedicated or devoted to work interfered with women's ability to process or speak of this experience personally and overtly. However, women who did not speak directly of a shift in priorities conveyed their experience in this area when asked what advice they would give to other women. A variation of the most common answer is as follows: "*I would just say to take care of themselves. And this doesn't sound very becoming of an active duty military member but take care of yourself. And yourself comes before the job."*

Lived Values

Perhaps as a result of the shifting priorities during pregnancy and motherhood, many women spoke of a distinct change in their approach to workplace interactions and leadership roles. Specifically, women recalled internalizing more fully the value of "service before self" through their lived experience of pregnancy and motherhood. In this way, women described feeling more compassionate and understanding toward the possible difficulties experienced by coworkers and subordinates balancing family and military service.

"Yeah, because here's the thing, is I can tell myself all these lines about what a good leader is in terms of being selfless and taking care of your people. And I knew all of those lines since I first went through basic [training]. I

knew the party line and what I should do, but I didn't feel like I really internalized that aspect of, 'I'm taking care of other people for their sake and not for my sake, because this is what a leader should do.' Instead of me trying to fill or play out this role of a leader, I now feel like it's more of my natural state of what I want to do. And whether or not how much about it is maternal instinct, I don't know. But I just noticed that as soon as I made that shift, and as soon as I found out I was pregnant, I was a lot more comfortable in me not working for me, and me working to make sure the people around me are getting taken care of… being pregnant in the military, is the best thing for your, I guess, development as a leader."

Of particular interest, these results represent women, themselves, embodying a previously discussed theme of male leadership who have families, or female leadership who have had children, being more compassionate, understanding, and need-based in policy interpretation and enactment.

"In a flight commander position, I have more 1:1 daily interactions with members in my squadron. I think it'll [pregnancy] definitely make me, not necessarily more approachable, but more understanding of the members that do have a spouse and kids at home. Like, it's something that I think I will now get. Whereas before, as someone who was married with no kids and just single, that… it's something I'm much more conscious of now."

Retention of Pregnant Service Members

Responses from study participants suggested that retention of women after pregnancy hinged on organizational environments that fostered women's ability to find a way to manage

these new, competing, priorities. Women who reported experiencing work environments which led them to view career progression and motherhood as completely incompatible reported making the decision, long before becoming pregnant, to separate from the military if pregnancy were to occur. In general, women described these environments as those in which they felt "punished" in some way for being a woman and being pregnant. For example, women who felt looked-down upon, or "less able" within their unit or career field due to their female status prior to pregnancy, subsequently experienced heightened harassment and stigma during pregnancy. These women also reported strong desires to separate from the military following maternity leave. Furthermore, women who perceived leadership (and workplace culture) as believing pregnancy and family granted women an unfair advantage, were less likely to experience the necessary workplace support to balance child-care and career progression. For example, women spoke of leadership attempting to be fair to all unit members by requiring each member to serve rotating day, mid-, and night shifts, which made childcare exceedingly difficult to secure.

Finally, some women viewed their experience with lack of time and energy to devote to preparing for the arrival of the baby during pregnancy, as indicative of the incompatibility of a military career and motherhood:

"I don't want that guilt on either side. I'm feeling guilty at work because

I'm not giving my all there because I want to give more to my child. Or feeling guilty at home because I give them everything at work and now, you know, I don't like playing with her when I come home or what not…"

Women who did not report a current strong desire to separate from the military after pregnancy were more likely to have experienced support from both leadership and coworkers.

Specifically, these women reported leadership who supported them through actively addressing any harassment within the unit, provided emotional support through frequent, sincere check-ins (i.e. “How are you?” “Is there anything I can do for you on my end?”), physical support through baby showers and meal delivery, and supportive advice. Women also recalled the importance of leadership and coworkers sharing excitement over her pregnancy experience. These experiences appeared to encourage women in their continued pursuit of managing the competing priorities of motherhood and career progression. Of note, even with support during pregnancy, most participants who did not voice a strong desire to separate from the military after pregnancy continued to express concern about how they would manage balancing new priorities:

> *“So, I think, for me, that was also another big fear and anxiety about what kind of balancing…What kind of officer will I be? Will I be good enough as an officer? And versus, also finding it equally important that I be a good mother and being afraid that I will be a workaholic. Either one way or the other, like, I will either sacrifice work or become sub-par at work.”*

These women discussed ways in which they were actively seeking more stability within their military careers, such as homesteading, stable dayshift work hours, and less deployments and long TDYs.

> *“We're [dual military couple] trying to think about, you know, maybe getting away from the specialty or… you know, crazy jobs where you're going overseas or whatever. And more focused on, ok now we have to shift gears and focus on, you know, how is this going to affect the family, and trying to keep us together. I feel like I still have the same goals*

> *as I did before, but I am choosing to make more stable goals. I definitely want to find… we're trying to apply for teaching positions to have a little more security with deployments and TDYs… not having to go out [deploy] for a couple of years."*

Finally, for the small number of women in this study who were single, or whose partners did not work, military service was valued for the stability, medical care, and income that it offered. These women expressed a strong desire to remain in the military in order to provide for their family.

DISCUSSION

Results of this study further the knowledge of the experiences of pregnancy among active duty Air Force members in light of improvements in organizational maternity accommodations. The manifestations of the central theme of stigma and pregnancy-related stereotypes within the military culture were examined. A model of factors that contribute to the health and well-being of pregnant ADSMs was constructed from the data collected in this study and a visual depiction of relationships among themes in this study is provided in Appendix H. This model suggests factors at multiple levels of women's ecology contribute to their health and well-being. These factors are imbedded within the overall military culture.

Person Component Influences

People First, Mission Always

Beginning at the individual level, the natural change in priorities experienced by women in this study is explained by physical and psychological processes which occur early in pregnancy and lead to an increase in preoccupation with self, particularly with personal safety (Nadelson, 2013). Research indicates this shift in priorities likely stems from changes in sense of self during pregnancy. Specifically, pregnancy may introduce additional important roles outside of the work-center, and may represent a challenge to the working identity of women who view their contribution to an organization as a significant portion of their self-identity (Bailey, 1999; Cuddy, Fiske,& Glick, 2004; Ladge, Claire, & Greenburg, 2012). This experience is common among predominantly female careers such as teaching and nursing, as well as largely male-dominated career fields (Bailey, 1999). Specifically, among male-dominated career fields in which career success may require women to act as a "surrogate

man," pregnancy may be viewed as a challenge to career progression and/or professional image (Bailey, 1999). Employment during pregnancy therefore involves navigating both changing priorities, as well as changing identities (Buzzanell &Liu, 2005; Johnston & Swanson, 2006). In a study by Bailey (1999), pregnant women participants described continuities between their work and mothering identities, stating both endeavors involved responsibility and stability, but that "other-centeredness" was felt most deeply with respect to a developing mothering identity (pg. 342). Within the current study, pregnant ADSMs described a shift in focus to people (including self) over mission. Factors, such as overall military culture, career field-specific culture, job tasks, and rank, influenced women ADSM's ability to navigate changes in focus, priorities, and identities while continuing to serve.

In the current study, women's perception of congruency between maternity and military service was highly dependent on their ability to incorporate this natural shift in priorities and sense-of-self with military cultural and contextual demands. Specifically, military culture encourages embodiment of organizational doctrines such as "service before self," in which individual needs are secondary to the needs of the collective unit (Montgomery, 2007). Individuals are frequently required to sacrifice personal comfort or desires to accomplish missions which ensure the safety and well-being of the unit, and in extreme cases, an individual may even be required to sacrifice their own life (Montgomery, 2007). It would therefore stand to reason that pregnant ADSMs experiencing a shift in focus to personal safety and well-being would have difficulty navigating a culture that no longer fits their changing priorities. For some women in the current study, particularly enlisted members in career fields such as security forces and aircraft maintenance, this difficulty was clear. Among these women, negative stereotypes and bias related to pregnancy were strengthened

by necessary changes in job tasks that removed them from primary duties involving harmful noises, chemicals, and protective gear not designed to ensure safety during pregnancy.

For other pregnant ADSMs, especially among commissioned members, this shift in focus was experienced as enhancing their ability to empathize with and incorporate leadership tenants of "people first, mission always." Commissioned participants in this study were often in positions emphasizing management of subordinates and personal career success involved showcasing the success and well-being of subordinates. Therefore, for these participants, experience with prioritizing personal safety and well-being strengthened their ability to empathize with others, lead with compassion, make meaningful connections with coworkers and subordinates, and to prioritize emotional and physical needs of people over mission-driven productivity statistics. By enhancing the emotional and personal well-being of troops, these women reported increased morale and cohesion among coworkers, which is understood to translate to mission productivity (Ben-Shalom, Lehrer, & Ben-Ari, 2005; Oliver, Harman, Hoover, Hayes, & Pandhi, 2009).

Women in this study who were able to incorporate their changing sense of self and priorities into cultural expectations in this way were more likely to report optimism about their ability to find a balance between motherhood and career progression in the future, and a desire to continue service. Additionally, participants whose leadership focused on people over mission were also more likely to report positive expectations around their ability to obtain stable dayshift workhours, and experience less deployments and long TDYs which would enable them to continue balancing motherhood with career progression. In this way, the shift in focus that occurs during maternity may serve to strengthen women's leadership skills to

positively influence the workplace by increasing unit morale, cohesion, productivity, and ultimately retention of future pregnant ADSMs.

Macrosystem Influences

Stigma and Bias at the Organizational Level

At the organizational level, efforts to retain women ADSMs have focused on full integration of women into all duty positions and improving maternity accommodations. However, results of the current study indicate women ADSMs continue to face stigma and negative bias within the military culture. The Health Stigma and Discrimination Framework (HSD Framework; Strangl, Earnshaw, Logie, van Brakel, Simbayi, et al., 2019) can guide our understanding of the experience of pregnant ADSMs. This framework states that stigma processes occur at all levels of the individual's ecology, namely, at the individual, interpersonal, organizational, and policy level. At the organizational level, this framework suggests factors such as concern about productivity, authoritarian leadership, social judgement, and blame (Strangl et al., 2019) are drivers of stigma. At a more distal level, cultural norms, gender norms, occupational safety standards, and health policy are viewed as factors that can have either a positive or negative influence on stigma (Strangl et al., 2019). The framework also acknowledges intersections between a specific health condition and social categories such as gender, race, class, and sexual orientation that also contribute to stigma within a particular social context (Heijnders & Van Der Meij, 2006).

Stigma related to health conditions may serve to deny social acceptance, and limit resource availability (discrimination) and social relationships among stigmatized individuals (Hatzenbuehler, Phelan, & Link, 2010). Stigmatized individuals experience increasing stress as well as both physical and psychological responses which lead to poor health outcomes

(Hatzenbuehler et al., 2010). Stigma-related attitudes and beliefs may extend to stereotypes, defined as, "…beliefs about characteristics associated with a group and it's members" (Stangl et al., 2019, pg. 17). When stigma-related attitudes and beliefs lead to negative evaluation of a group and its members, prejudice is experienced (Stangl et al., 2019). Finally, discrimination may be experienced at both the individual and institutional levels stigmatized individuals may experience discrimination at the individual and institutional levels. (Stangl et al., 2019). Stereotypes, prejudice, and discrimination are considered both drivers and manifestations of stigma, because they both exacerbate and reinforce stigma-related attitudes and beliefs (Stangl et al., 2019).

In this study, pregnant ADSMs spoke of stigma and stereotypes that were strikingly similar to those reported within the military almost 30 years ago. Specifically, pregnant ADSMs faced both overt and covert messages about being less disciplined, lazy, or weak during pregnancy. Pregnant ADSMs also reported experiences unique to the military. Specifically, women expressed lived experiences of negative stereotypes which portrayed them as using pregnancy to avoid work or deployments. These experiences are congruent with rhetoric seen in newspapers during the Gulf War regarding women in the military. For instance, newspaper headlines read "Sailor Pregnant to Avoid Tough Duty?" (Lundquist, 2005, p. 2) and Navy commanders were noted to suggest women soldiers were "deliberately becoming pregnant to avoid work or service altogether" (Thomas et al., 1991, p. 14). As such, it appears that negative attitudes toward pregnancy in the military have remained stable over the past 30 years.

These attitudes and beliefs may be reflections of the lack of cultural change around negative stereotypes of women in the civilian work force. Indeed, a recent study of women in

the workforce supports this idea. Specifically, despite increases in the number of women in the work-force between 1985 and 2014 (38% to 47%; US Census Bureau, 2010; US Department of Labor, 2016), Haines and colleagues found beliefs about "male gender roles, male and female occupations, and male and female physical characteristics" remained stable (Haines, Deaux, & Lafaro, 2016, pg. 259). Specifically, participants continued to associate women with careers such as "secretary" while men were associated with careers such as "cable installer" and "politician" (Haines et al., 2016). Additionally, women remained associated with lower levels of independence and competence and higher levels of expressivity, warmth, and concern with the welfare of others (Haines et al., 2016). These results reflect gender stereotypes have not changed despite the increased number of women in the work force.

Social psychological research on confirmation bias (Higgins & Bargh, 1987), illusory correlation (Hamilton & Gifford, 1976), and self-fulfilling prophecies (Snyder, Tanke, & Berscheid, 1977) may provide insight to the lag in cultural change in gender roles more generally, and in particular, the role of women in the workplace. Specifically, people are more likely to notice and remember behaviors and events which confirm their social beliefs or biases around women (Fyock & Stangor, 1994). In this way, negative stereotypes about women are maintained despite evidence to the contrary. Furthermore, additional research indicates people's beliefs about the basic characteristics of each gender (i.e., females associated with warmth and males associated with competence and independence; Haines et al., 2016) hold true in countries all over the world (Williams & Best, 1990). Given these widespread beliefs, gender stereotypes remain stable despite societal shifts in employment and work participation (Diekman, Eagly, & Johnson, 2010). This research provides an important

context for understanding the experiences of stigma and stereotypes among pregnant ADSMs. Specifically, ADSMs continue to experience negative stereotypes despite the unanimous desire expressed by women in this study to remain an integral, meaningful, productive member of their units throughout pregnancy, and recent policy changes regarding women's involvement in the military.

Stereotype threat in the workplace has been found to be associated with decreased work performance, lower job satisfaction and commitment (Bergeron et al., 2006; Riketta, 2008; von Hippel et al., 2013), and poor health outcomes among pregnant women (Davis et al., 2005; Major, 2004). In addition, pregnant women faced with negative stereotypes and bias in the work place may practice "covering" behaviors in an attempt to manage the perceptions and reactions of others by acting in ways meant to set oneself apart from negative stereotypes and stigmas (Doyle & Molix, 2017). Congruent with this research, ADSMs in this study were aware of negative stereotypes associated with pregnancy and deliberately acted in ways that challenged these stereotypes, sometimes putting their own health at risk. In this way, cultural factors were found to negatively impact women's experience of pregnancy-related policies around workplace accommodations.

Exosystem Influences

Pregnancy-Related Policies

The U.S. military has recently enacted policy changes that provide several pregnancy accommodations in an effort to increase retention among women ADSMs. In this study, women were thankful and encouraged by the institution's attention to improved maternity accommodations; however, the use of these accommodations was often accompanied by negative consequences. For instance, participants reported increased animosity among

coworkers who felt pregnancy granted women an unfair advantage through lesser amounts of work or responsibility and more "vacation time." In fact, women reported they feared accepting these accommodations as they would likely reinforce negative stereotypes and place them at risk for being perceived as going against the institutional expectations of service-before-self, teamwork, unit cohesion, and morale. Consequently, women reported covering behaviors such as attempting to delay and avoid using accommodations that may lead coworkers to view them as a less reliable or less capable team member. Furthermore, covering behaviors among pregnant ADSMs within the current study reflected military organizational policy. For example, women postponed prenatal care to avoid automatic notification of pregnancy to leadership. Some women postponed care to avoid removal from hazardous but meaningful job tasks. Such behaviors increase the risk of poor health outcomes for pregnant ADSMs, as well as their unborn children.

Overall, our findings indicated that although organization policy changes related to maternity accommodations are a monumental step toward improving the health and well-being of women ADSMs, cultural and interpersonal factors limit the beneficial impact of these policy changes. Yet another example of stagnation of military culture surrounding pregnancy is the similarity between results of the current study and those of a study conducted in the nineties, which found that approximately 25% of women ADSMs reported pregnancy-related workplace harassment and 8% felt as if coworkers were resentful of increased workloads caused by pregnancy-related work restrictions (Evans & Rosen, 1996).

As suggested by prior research (i.e., Bergeron et al., 2006; Riketta, 2008; von Hippel et al., 2013), striving to decrease the pervasive negative stereotypes, stigma, and bias that has historically surrounded pregnancy in the military is likely to have a powerful impact on the

overall retention of women ADSMs. Furthermore, given negative health outcomes associated with stereotypes and bias around pregnancy (Willison, 2005), attention to these issues represent a critical concern for the military, given organizational responsibility for health care and disability funding for the lifetime of discharged service members. Findings from this study also suggest lack of knowledge among pregnant ADSMs and leadership about pregnancy policies, confusion over interpretation of vague organization maternity policies, and little clarity around implementation of these policies across units. These areas require greater attention from the organization.

Confusion

Study findings suggest both pregnant ADSMs and their leadership were unaware of, and confused about how to interpret and implement, institutional policies around maternity. Specifically, recommendations provided by medical providers and personnel in the military public health office were viewed as vague and non-directive by both women and their leadership. Participants indicated military public health personnel pointed out hazards within a work center but left it up to operational commanders to determine how/if daily job tasks would be modified to reduce a pregnant ADSM's exposure. Additionally, medical personnel provide medical "recommendations" rather than commands. Participants reported that the negative effects of continued exposure to identified hazards and unmodified job tasks were not specified by safety and medical personnel, leaving both pregnant ADSMs and commanders unaware of potential consequences of ignoring recommendations in favor of productivity or furthering the mission. As a result, study participants believed their ability to ensure well-being in the workplace during pregnancy depended on their success in

approaching and working collaboratively with leadership to shape work responsibilities around unique health and safety needs.

Vague, non-directive, medical and safety guidance within the military emerges as problematic in two ways. Firstly, vague and non-directive communication is in sharp contrast to the military culture of strict adherence to discipline, order, and hierarchy. Secondly, leadership interpretation and enactment of information provided by medical personnel is subject to mission needs and personal beliefs/stereotypes about pregnancy previously described, leaving women vulnerable to stigma and bias. The following section will expand upon complications associated with the discrepancy between vague and non-directive communication and military culture.

Military culture is characterized by detailed, rigid, adherence to standards and structure, with a cultural expectation of respectful, hierarchical communication from leadership to subordinates. Findings of this study indicated that when responsibility to approach leadership and advocate for personal health and safety needs was placed on pregnant ADSMs, both culturally endorsed power differentials and stereotype threat impeded women's ability to communicate their needs. Our findings also suggested these issues were more common among younger, enlisted, pregnant ADSMs who typically have less power and privilege in the military. Moreover, individuals of younger age and lower rank reported higher levels of distress and health concerns and were more likely to attempt continued performance of un-modified duties as long as possible before approaching leadership. Congruent with the HSD Framework (Strangl et al., 2019), these experiences reflected intersecting social categories related to class and privilege (Heijnders & Van Der Meij, 2006).

Mesosystem Influences

The second way in which non-directive medical and safety guidance emerges as problematic is through the resulting responsibility placed on operational leadership to interpret and implement critical workplace accommodation recommendations. This lack of direction within medical and safety recommendations left women vulnerable to decisions made by operational leaders who may have limited knowledge of common physical and emotional needs of pregnant women and are focused on mission outcomes. Additionally, leadership decisions operate within a cultural context rife with negative stereotypes and stigma associated with pregnancy. Consistent with the HSD Framework, this is an example of how organizations characterized by concern about productivity and authoritarian leadership drive health-related stigma (Strangl et al., 2019). Given this cultural context, institutional adherence to a hierarchical power structure, and current organizational policy, it is apparent the health and well-being of pregnant ADSMs is influenced by leadership approach.

Microsystem Influences

The Role of Leadership

Military leadership is tasked with ensuring mission readiness through maintaining an organizational culture conducive to productivity, and effective use or direction of subordinates. Organizational psychology research clearly and consistently highlights the impact of attitudes held by leadership on organizational culture (Chang & Lee, 2007; ElKordy, 2013; Sarros, Cooper, & Santora, 2008; Tsai, 2011). Findings of our study demonstrate how authoritarian leadership styles may drive health-related stigma (Strangl et al., 2019). Specifically, military leadership's personal attitudes and beliefs about pregnancy

within the workplace influenced pregnant ADSM's health, well-being, and ability to remain an active, valued, productive member of the unit.

Authoritarian Leadership

Consistent with the HSD Framework (Strangl et al., 2019), leaders who employed a traditional (authoritarian) military leadership style of one-way, leadership-to-subordinate, communication, and were more mission-focused (productivity-focused), were more likely to hold negative stereotypes about pregnant ADSMs. In our study, authoritarian/mission-focused leadership style was associated with women's reports that leadership believed pregnancy symptoms were being exaggerated. Rather than addressing workplace bias and harassment, authoritarian/mission-focused leaders avoided actions that would be perceived as providing the pregnant ADSM with "less work" or an "unfair advantage" by prioritizing mission needs and interpreting medical and safety information as recommendations, rather than necessity for the safety and well-being of pregnant members. Mission-focused leadership made authoritarian decisions about which accommodations pregnant ADSMs would use and when. For example, women in this study reported that mission-focused/authoritarian leaders were more hesitant to allow women to leave work early due to fatigue if such an accommodation was not expressly stated within the pregnancy profile. This resulted in the perception that these leaders were disregarding the needs of the individual. It is also possible leadership is unaware of the severe physical fatigue commonly experienced by women during the last trimester, at which time the fetus experiences over 90% total growth (King, 2000). As a result of stigma-driven stereotypes and discrimination, pregnant ADSMs with authoritarian/mission-focused leaders reported higher stress and more health concerns associated with the inability to use accommodations according to their changing physical needs.

In other cases, leaders focused on productivity drove stigma, stereotypes, and discrimination among pregnant ADSMs by viewing pregnancy as a hindrance to mission readiness and production. These leaders were more likely to re-task members to jobs in which a three-month absence during maternity leave was least likely to impact unit productivity. Women who were re-assigned to less important or relevant jobs were left feeling under-utilized and demeaned. Consequently, women with authoritarian/mission-focused leadership were more likely to experience pregnancy as incompatible with military service, believe that they would be unable to balance their desire to be both a good mother and a good Airman, and voiced strong preferences to separate from the military. These findings suggest successful leadership necessitates a heightened awareness of stigma and negative stereotypes around pregnancy, and a parting from more traditional, authoritarian/mission-focused, military leadership styles.

Research on police forces within western cultures may offer a glimpse of comparison to military culture due to the similarities in hierarchical power-differentials within the organization, an emphasis on "service before self," high unit cohesion, and dangerous job tasks. In fact, research identifies the police force as "one of the last industries to evolve away from a hierarchical approach to leadership" (Cohen, McCormick, & Rich, 2019, pg. 222). Within the police force, authoritarian or autocratic leadership styles were found to produce high quality work and be most effective in crisis situations, but also resulted in hostility and decreased morale among employees (Henderson, 1981). Results of the current study are consistent with these findings, in that authoritarian leaders within the military attempted to reduce any negative influence of pregnancy on work center productivity and, in the process, contributed to pregnant ADSMs experiencing hostility and feeling de-valued. These results

suggest that a different form of leadership is necessary to cultivate health, well-being, and retention of women service members.

Transformational Leadership

A transformational leadership style, described as a "more participatory form of leadership" (Cohen et al., 2019, pg. 223) has been found to be most effective in improving police employee's health, well-being, and commitment to mission (Bass, 1990; Henderson, 1981; Swid, 2013). Transformational leaders strive to develop open communication and focus on the professional and personal development of subordinates, "to include an officer's emotional and psychological well-being" (Cohen et al., 2019, pg. 223). Furthermore, transformational leaders work to create a supportive climate in which subordinates feel valued, heard, and supported within the organization (Silvestri, 2007; Swid, 2013).

In our study, pregnant ADSMs with transformational leadership perceived this leadership style as proactive and empowering. These participants were more likely to report experiencing good health and well-being during pregnancy and to believe they could succeed in balancing a military career and family life obligations. More specifically, leaders employing a transformational approach were mindful of, and prioritized, the ADSM's desire to remain a productive and valued member of the unit. As such, these leaders were more likely to provide women with opportunities to do so, while also protecting their health and well-being during pregnancy. In our study, these leaders encouraged women to feel comfortable using accommodations and made it known a woman's intent or decision to use accommodations within established policy would not be questioned. Through these actions, transformational leaders conveyed to women that they recognized needs and symptoms change throughout pregnancy, and thereby instilled a sense of trust and respect in a woman's

ability to make decisions in the best interest of her health. Transformational leaders were described as having taken action to correct workplace harassment or bias around pregnancy and proactively mentor pregnant ADSMs regarding career considerations and collaborative planning for both foreseen and unforeseen absences during the pregnancy process. Pregnant ADSMs perceived this leadership style as supportive of their efforts to succeed in both career and family endeavors and considered continued service after pregnancy.

This study provides insight to the stark contrast in experiences of pregnant ADSMs with authoritarian and transformational leadership. Specifically, findings highlight how authoritarian leadership style within an organization may drive stigma. The stereotypes and discrimination resulting from this stigma negatively affected the health, well-being, and ultimately the desire of women to remain within the organization. Not surprisingly, these findings echo those of studies within the police force examining the connection between leadership style and the general health and well-being of police officers (Cohen et al., 2019). Within organizations governed by hierarchical leadership, values and beliefs held by leadership are profound predictors of organizational culture and cultural reform (Cohen et al., 2019). Values and beliefs held by leadership drive decisions which are responsible for both establishing and maintaining meaningful organizational change (Cohen et al., 2019). Therefore, considering ways to aid in development of leadership styles conducive to the health, well-being, and retention of pregnant ADSMs may be a critical area of intervention for the military.

Recommendations for Change: Policy, Process, and Training

Results of the current study are suggestive of two alternative approaches to influence leadership styles towards increasing health, well-being, and potentially retention of pregnant

ADSMs. Firstly, offering specific training to leadership to empower informed decision making around pregnancy accommodations in operational units and secondly, clarifying medical and safety recommendations.

Specialized Training

Given similarities between the police force and US military culture (i.e. male-dominated, hierarchical power structure, dangerous job duties, and an emphasis on "duty before self" and unit cohesion), successful organizational approaches may offer valuable insight to desired military reform. Specifically, when seeking to change organizational culture to reduce stigma around mental health help-seeking behavior, the police force focused on modifying leadership approach toward transformational leadership styles (Pagon, 2003). This change led to improved health, well-being, and productivity of police officers (Pagon, 2003). While changing leadership approach to more equally distribute power among troops within the military may not be feasible, raising awareness among leadership about the influence of management approaches on pregnant ADSM's health, well-being, integration in unit, and ultimately retention, may be a crucial step to translating policy-level retention efforts to improve the health and well-being of pregnant ADSMs, and potentially retention.

One possible method for accomplishing increased awareness is through specialized, annual, training for leadership. Such training should aim to share information about the ways in which stigma around pregnancy drives stereotypes and discrimination within the military, and ways in which leadership can support pregnant women. Training should also include information on the physical and emotional needs of pregnant troops, available resources, and administrative processes around pregnancy. Given the important role operational leadership plays in determining the use of medical and safety accommodations among pregnant ADSMs,

training should be designed to increase leadership's understanding of the medical necessity of common pregnancy accommodations. This may aid leadership in appropriately weighing information provided by medical and safety professionals against mission needs, to include unit morale and cohesion. Providing such specialized training to key personnel such as First Sergeants[1] and Commanders may help to ensure information and awareness is passed to both enlisted, as well as commissioned leadership. Further, attention should be paid to raising awareness in career fields such as aircraft maintenance and security forces, in which pregnancy necessitates significant change in job tasks, increasing the risk of negative stereotype and stigma. Participants in this study voiced hope such training would also help leadership to mentor pregnant troops regarding the process of reporting to medical and public health personnel, obtaining mobility and duty profiles, seeking out maternity uniforms and uniform allowance funds, and requesting maternity leave.

Of note, the suggested training is in-line with training routinely provided to leadership focusing on the emotional needs, reporting processes, warning signs, and available resources for victims of assault and Airmen who are experiencing emotional distress. However, it is possible the specialized, annual, training suggested, in addition to the many training requirements already faced by leadership, would be less effective than desired. An alternative method to influencing leadership styles towards health and well-being of ADSMs, is to recognize the limited degree of medical knowledge among operational military leadership and take steps to reduce their responsibility in determining the medical necessity of accommodations against mission requirements. Specifically, this method would enable medical professionals and personnel from the public health office to make directive commands instead of recommendations on medical profiles.

From Medical Recommendations to Medical Orders

Making medical and safety recommendations more specific would likely increase operational commanders' adherence to current policy and ensure women are able to use appropriate accommodations to meet their needs. This is especially important given results of the current study in which approximately 40% of participants experienced reduced pregnancy profile support, defined as the degree to which medical, pregnancy-related, work restriction recommendations were honored without questions or harassment. These results closely mirror that of Evans and Rosen (1997), in which 44% of pregnant military women experienced reduced pregnancy profile support. These findings suggest little progress has been made in honoring existing pregnancy-related policies in the military across 20 years.

Enabling medical professionals and personnel from the public health office to make directive commands instead of recommendations regarding workplace accommodations also ensures operational leadership will be provided with specific, appropriate, accommodations based on the needs of each individual pregnant ADSM. This change would help address the theme of ambiguity around current medical and safety recommendations. Furthermore, this process would more closely align with institutional expectations of directive, hierarchical, communication from medical specialists to operational commanders. Additionally, following specific, direct, commands related to medical and safety requirements would help reduce the link between authoritarian leadership style and exacerbation of stigma, stereotypes, and discrimination of pregnant ADSMs. Specifically, following medical orders (rather than recommendations) would reduce the effect of leadership's personal beliefs and attitudes towards pregnancy within the military on use of accommodations within the workplace, and enable leadership to avoid the appearance of bias or "unfair advantage" within the work

center. Finally, this change would enable pregnant ADSMS to avoid experiencing distress associated with having to persistently advocate for their needs. Consistent with the HSD Framework (Strangl et al., 2019), results of the current study indicate this change is likely to have the most significant positive impact on the safety, well-being, and retention of younger, enlisted, members, who are at higher risk for experiencing difficulty communicating their needs to higher-ranking leadership. Finally, this change will also provide education to operational leadership and units around normal and expected physical and emotional needs during pregnancy. Of note, given operational leadership's important role in interpreting and enacting safety and medical recommendations, participants in the current study wanted leadership to have familiarity with expected versus possible adverse experiences during pregnancy. Most notably, results of the current study indicate significant distrust in military medical system among pregnant ADSMs.

Trust in Medical Care

Medical care and support received during the prenatal period significantly influences the health and well-being of pregnant women. Thirty-six years of research has consistently indicated women ADSMs experience alarmingly high rates of adverse pregnancy outcomes compared to civilian women. Specifically, studies found women ADSMs to experience up to 12 times the rate of prenatal hospitalization (Magann & Nolan, 1991), 10 times the rate of pregnancy-related anemia (Fox, Harris, & Brekken, 1997), five times the rate of preterm labor (Fox et al., 1997), three times the rate of perinatal mortality (Hauth, Gilstrap, Brekken, & Hauth, 1983), and almost twice the rate of cesarean deliveries, preeclampsia (Magann & Nolan, 1991), and low birth weight deliveries (Hauth et al., 1983). To my knowledge, this is the first study to identify psychosocial factors experienced by pregnant ADSMs navigating the

military medical system. Trust in medical care emerged as uninfluenced by stigma and stereotypes surrounding pregnancy. Rather, wide-spread distrust of military medical care among pregnant ADSMS appeared grounded in a different cultural stigma, organizational policy preventing malpractice repercussions, frequently rotating providers, and perceived experience limitations of military medical providers.

In the current study, women's experiences with military medical providers discounting symptoms (both prior to, and during, pregnancy) appeared largely influenced by cultural expectations of pain and discomfort as a normal experience during military service. These cultural norms, combined with the health policies within the military, serve to negatively influence the health and well-being of pregnant ADSMs. The effect of military cultural norms is perhaps best demonstrated by the portion of pregnant ADSMs in our study who received both military and civilian medical care throughout their pregnancy. Most concerning was the number of women who reported their symptoms were disregarded by military medical providers as "normal pregnancy symptoms" and later required civilian medical attention during emergency room visits, or significant interventions during the birthing process. These findings suggest a need for increased awareness among military medical providers regarding pregnant ADSM's experience of feeling unheard and discounted when seeking medical services.

Recommendation for Change: System Review

To provide information on the extent and true impact of attitudes and practices by military medical providers, a thorough, internal review is suggested. Specifically, this review should aim to focus on medical records of pregnant ADSMs who have received military medical care throughout pregnancy. Military medical clinic encounter notes should be

compared with emergency room visits and adverse birth outcomes among pregnant ADSMs to identify times when women reported symptoms that were ineffectively managed. This review may inform future organizational policy changes to improve medical care, and potentially decrease adverse birth outcomes among pregnant ADSMs.

Within the current study, women's wide-spread, negative experiences with military medical providers both before, and during pregnancy, are exacerbated by feelings of helplessness in light of the Feres Doctrine, which prevents military personnel from filing malpractice claims against individual military medical providers (Hill, 2009). Empowering military members to pursue legal action against providers may be a powerful motivation for improving patient-provider relationships within the military medical system.

Another factor which contributed to the distrust of military medical providers among pregnant ADSMs was the wide-spread perception that military providers lack specialized experience and knowledge regarding pregnancy and maternity issues compared to civilian providers. Study participants believed military medical providers saw, on average, less pregnant women than civilian providers, and were therefore less experienced. These perceptions are congruent with findings from a recent comprehensive review of the DoD Military Health System (MHS; DoD, 2014) which indicated military treatment facilities (MTFs) delivered an average of 50,000 infants per year. This is approximately half of the average civilian medical hospital, which delivers an average of 100,000 infants per year (DoD, 2014). Within the larger MHS, comprised of Army, Navy, and Air Force facilities, Air Force MTFs delivering infants are the smallest in number (12 facilities) and deliver the smallest percentage of infants (12%) (DoD, 2014).

In the current study, participant's perception of military medical providers as less knowledgeable about current standards of care appeared to be driven by birthing experiences at military hospitals in which rigid, inflexible, approaches to the birthing process were followed and less traditional birthing methods are not considered or offered. Women in the current study also voiced dissatisfaction with military providers in attending to their concerns during postpartum care. Examples from participant experiences include unfulfilled desires for water births and laboring in various positions to aid in pain and infant positioning. Furthermore, women voiced concerns around access to services in military birthing centers such as breast-feeding support, sits baths, and advanced treatment for postpartum physical complications, which were received only after significant self-advocacy. Additionally, women reported feeling pressured to have birthing interventions without enough information to make informed decisions. More than one participant spoke of privately hiring a civilian provider who disagreed with a military medical provider's assessment of risk and preference for a C-section birth. These experiences are validated by results from the MHS performance review, which found MTFs fell below national benchmarks in 50% of obstetric performance measures (DoD, 2014). Specifically, MTFs were found to perform a higher number of C-sections and forceps-assisted vaginal deliveries than National Perinatal Information Center[12] (NPIC) averages. Additionally, the number of women and infants experiencing postpartum hemorrhage and re-admittance to hospitals within 42 days postpartum were higher within MTFs than the NPIC averages (DoD, 2014). The injury to infant during birthing rate among MTFs averaged twice that of NPIC statistics from 2010 through 2013 (DoD, 2014).

[12] A national organization that compiles statistics of mothers and newborns at 86 participating civilian hospitals (DoD, 2014).

Unlike civilian health care, ADSMs receiving prenatal care on a military base are unable to choose their provider. Instead, a provider is assigned to them based on availability. Barring extenuating circumstances in which a military medical provider is not able to provide the specialized care needed, ADSMs are not afforded the option to leave a practice and seek alternative care unless the decision is made to pay privately. In this system, patient feedback is valued for purposes of process improvement but is not viewed as critical, change-inducing, feedback to ensure the survival of a practice. The Feres Doctrine further reduces the pressure on medical providers to attend to patient feedback. This system is well-suited to military cultural standards of one-way, hierarchical, leader-to-subordinate communication style and rigid adherence to procedural guidance, meant to ensure efficiency. However, the current study suggests this approach to prenatal and perinatal care contributes to distress and may be a significant factor in adverse birth outcomes among ADSMs.

In contrast to ADSM's perception of military medical providers, most women in the current study reported a strong trust in civilian medical providers. Participant's indicated this trust was based on the following factors: ability to choose the provider, specialized experience with maternity and women issues, consistency in provider over the course of pregnancy which allowed development of a relationship, providers' willingness to answer questions in-detail, and the ability to choose from a wide variety of birthing options. As a result, women in the current study felt heard and included in medical decisions and felt unhurried by providers during appointments. Taking steps to increase military medical providers' awareness of pregnant ADSMs' concerns can help increase trust. In addition, increasing efforts to build relationships with patients, provide information in a way that can be understood by first-time mothers, and include patients in medical decisions, is recommended as initial steps to rebuild

trust between ADSMs and military medical providers. Furthermore, enabling military medical providers to offer the services equivalent to those at leading civilian medical centers, such as water births and alternative laboring positions, would likely improve women's perceptions of the quality of military care. Overall, ADSMs in the current study desired the ability to choose their own medical provider. Allowing all ADSMs (rather than only ADSMs stationed in areas which no military OBGYN is available) the option to seek civilian medical care for pregnancy under their military medical insurance would empower women to make informed decisions about their care based on comfort level and individual needs. This is particularly important as women experience changes in priorities during pregnancy to favor personal safety, which may explain their increased desire for medical personnel who are consistent, informative, and attentive to their experiences.

Summary

Results of the study demonstrate how class (rank), leadership style, occupational safety standards (changes in job tasks), and military health policies intersect to impact stigma surrounding pregnancy, and ultimately, the health of both the ADSM and her unborn child. While organizational policy aims to provide needed protection, pregnant ADSMs are vulnerable to operational leadership's interpretation of vague medical and safety recommendations. Leadership style was associated with variations in interpretation of medical recommendations and policy guidelines such that authoritarian leaders were more likely to use mission-based interpretation of pregnancy-related policy while transformational leaders were more likely to use need-based interpretation. Furthermore, mission-based interpretation was associated with increased negative stereotypes surrounding pregnancy in the workplace while

need-based interpretation was associated with minimal reports of pregnancy-related bias and discrimination within the work center.

Younger, enlisted, women in the career fields of aircraft maintenance and security forces were at highest risk for experiencing significant stigma, bias, and discrimination in the workplace during pregnancy. These findings resulted from two underlying mechanisms: Firstly, younger, enlisted, women were most likely to experience difficulty communicating their needs to leadership due to culturally-endorsed power and privilege differentials. Secondly, younger, enlisted women in these career fields experienced significant job task changes during pregnancy, which strengthening existing stereotypes within the workplace.

Overall, findings of this study identified key factors influencing women ADSM's experience of pregnancy. Results identified the complexity of bi-directional relationships among these factors and illuminated second and third order effects of organizational policy around pregnancy and maternity in the military. Specifically, study findings provide areas of focus for future policy change in the interest of reducing bias, harassment, and discrimination around pregnancy and improving the health, wellbeing, and retention of pregnant ADSMs.

Limitations and Future Research

Limitations to this study stem largely from intentional decisions around study design and data collection. Given the qualitative nature of this study, generalizability of results is limited. The small number of participants ensured depth of analysis of rich, complex data, but limited the ability to gather information that can be generalized to all pregnant women in the Air Force. Future research will need to incorporate quantitative measures to examine larger samples of pregnant ADSMs and increase the generalizability of findings. Additionally, future

research should examine the extent to which findings hold across samples of pregnant ADSMs from a larger range of career fields and rank. For example, the current study focused sampling on operational personnel to limit variability due to cultural differences that may exist between operational units and the Medical Corps, Chaplain Corps, and Judge Advocate General's Corps[13]. As a significant portion of the active duty force, future research should examine the experiences of non-operational personnel to explore any ways in which unique group characteristics may be impacting the health, well-being, and retention of pregnant ADSMs. Additionally, expanding future study to include higher-ranking individuals (O-5 and above and E-6 and above) would introduce a wider age range, as well as individuals with greater levels of responsibility in the workplace/potential stress. Including these individuals may provide rich data on the complexities of psychosocial factors influencing the pregnancy experience of ADSMs. Finally, more extensive sampling within specific career fields, or within certain rank stratifications (i.e. commissioned vs enlisted members), will provide a more nuanced comparison between work centers and rank structures within the larger Air Force.

Perhaps the largest limitation to the current study is the lack of information gathered on factors critical to the pregnancy experience outside of the workplace. The nascent state of research made the current study's exclusive focus on work experience of pregnant ADSMs apropos. However, future studies are encouraged to expand data collection to incorporate important factors such as home life experiences and significant other relationship characteristics. In addition, due to the recent implementation of many new maternity-related policies within the military, the current study limited recruitment to first-time mothers. This

[13] JAG Corps: The military career field concerned with military justice and law. Military lawyers serve in the JAG Corps.

choice was made to decrease the possibility of a positivity bias among women who may have compared their most recent maternity experience with previous experiences occurring during less favorable military conditions. Future studies including women with multiple children may help to illuminate the effectiveness and reception of current military maternity policies more fully among women ADSMs who have chosen to remain in service after their first pregnancy experience.

Finally, the current study was not longitudinal and did not review medical files to further examine possible connections between psychosocial factors and the high rates of adverse birth outcomes among ADSMs compared to the civilian population. In light of the consistency of findings on the comparatively heightened rates of adverse birth outcomes among this population, and the narrow, biomedical, focus of previous research, future studies would be well-advised to consider further exploration of psychosocial factors that may be affecting this specific area of women ADSM's health. Similarly, the nature of the data does not allow us to explore if these experiences are associated with the decision to remain in the military after childbirth.

Conclusion

Women ADSMs are a minority in the male-dominated Profession of Arms and face unique challenges to health and well-being. A distinctly female experience, pregnancy among women ADSMs is the most debated topic in the history of the Armed Forces (Biggs et al., 2009). Pregnancy is associated with both high rates of adverse health outcomes and separations from military service (Defense Advisory Committee on Women in the Services, 2017). These data highlight a need to understand factors which influence the experience of pregnancy among women ADSMs. Consistent with the bioecological framework, this study

examined individual, workplace, and institutional factors that influence well-being and desire to remain in the military among pregnant ADSMs. To my knowledge, the current study is the first to utilize a qualitative approach to explore the experience of pregnant active duty Air Force members in the context of the organization's recently improved maternity policies.

Results of this study suggest the Air Force will continue to experience limited success in fully integrating and retaining women ADSMs due to an organizational climate which lags behind the recent, progressive, improvements in pregnancy policies and accommodations. Specifically, this study revealed pervasive, negative, stereotypes and bias surrounding pregnancy within the Air Force, which have remained largely unchanged over the past 30 years. Pregnant ADSMs in career fields such as Security Forces, Aircraft Maintenance, and Pilots seemed at higher risk for experiencing negative consequences of stereotypes and bias due to significant changes in daily work tasks necessary to avoid environmental health hazards during pregnancy.

Study findings also identified a contrast between military culture and vague, non-directive pregnancy-related medical and safety guidance provided to operational leadership as a significant factor affecting the health, well-being, and ultimately retention, of pregnant ADSMS. Lower-ranking, younger, Airmen were at highest risk for experiencing negative consequences due to lower power status and privilege within the military system. Furthermore, distrust of military medical providers among ADSMs was fueled by concerns about military medical care received during pregnancy. These factors may also have implications for the high rates of adverse birth outcomes seen among women ADSMs.

With results of this study in mind, recommendations for improving processes are provided. Most notably, organizational culture around pregnancy within the military must be

targeted for change, with the goal of reducing negative stigma and pregnancy-related bias, and finding safe and effective ways for ADSMs to remain active, productive, integral parts of their units during pregnancy. In fact, study findings suggest the natural shift in focus to self and safety during pregnancy functioned to strengthen leadership skills necessary to increase unit morale, cohesion, productivity, and ultimately retention of future pregnant ADSMs. Suggestions were provided for fostering movement towards a transformational leadership style, which focuses on personal and professional growth while fostering health, well-being, and commitment to the mission (Bass, 1990; Henderson, 1981; Swid, 2013). Finally, a call is made for further investigation and changes to military medical care received by pregnant ADSMs.

In conclusion, the current study uncovered complex interactions between individual and institutional factors effecting the health, well-being, and desire to remain in the military among pregnant ADSMs. Results point to the complex nature of these interactions and processes which operate within, and are affected by, both historic and current organizational culture. Successful progress toward improving the health, well-being, and retention of pregnant ADSMs may be achieved through careful attention to both the proximal and distal effects of each targeted intervention, as well as the larger organizational context in which interactions and processes are operating.

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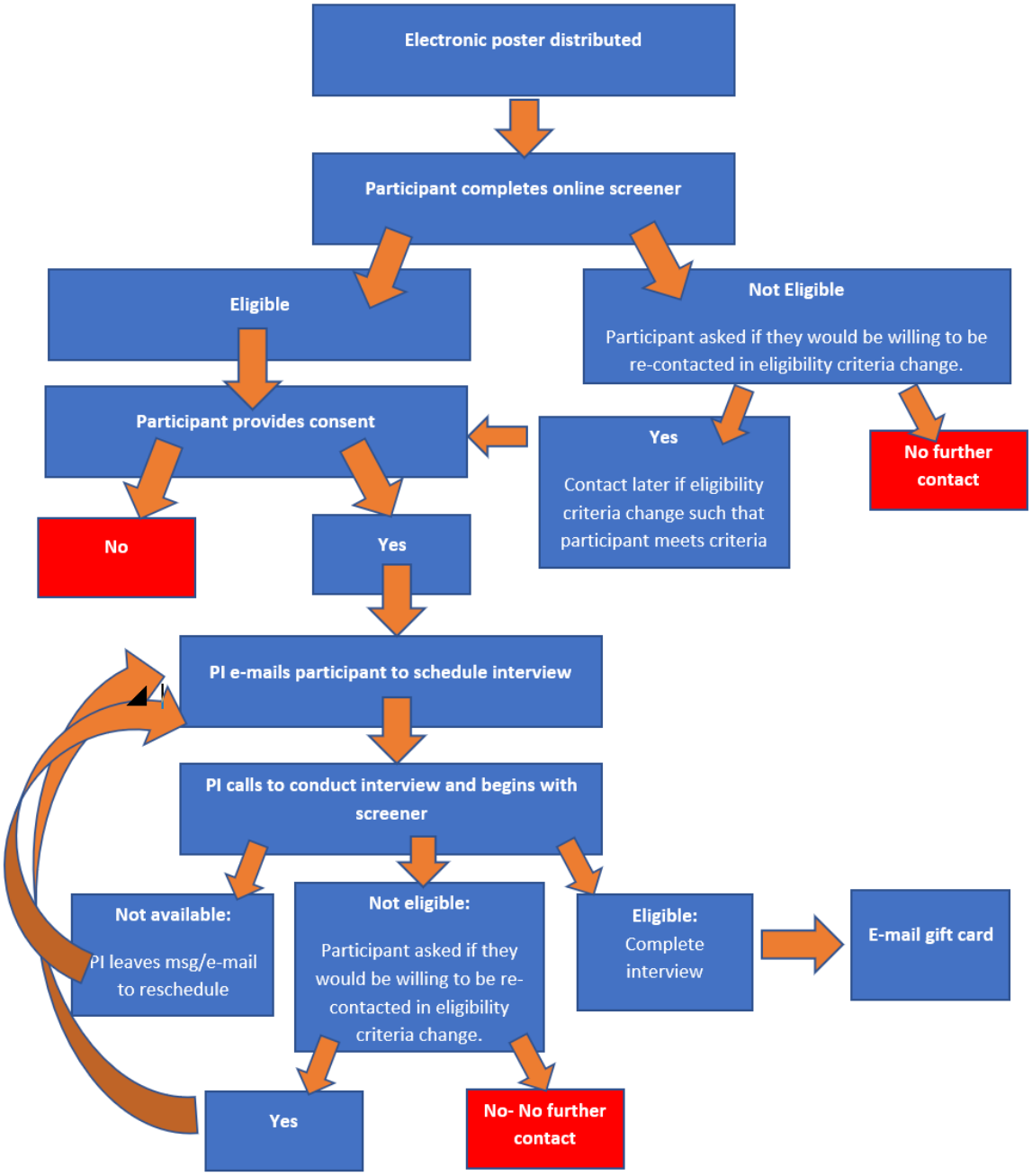
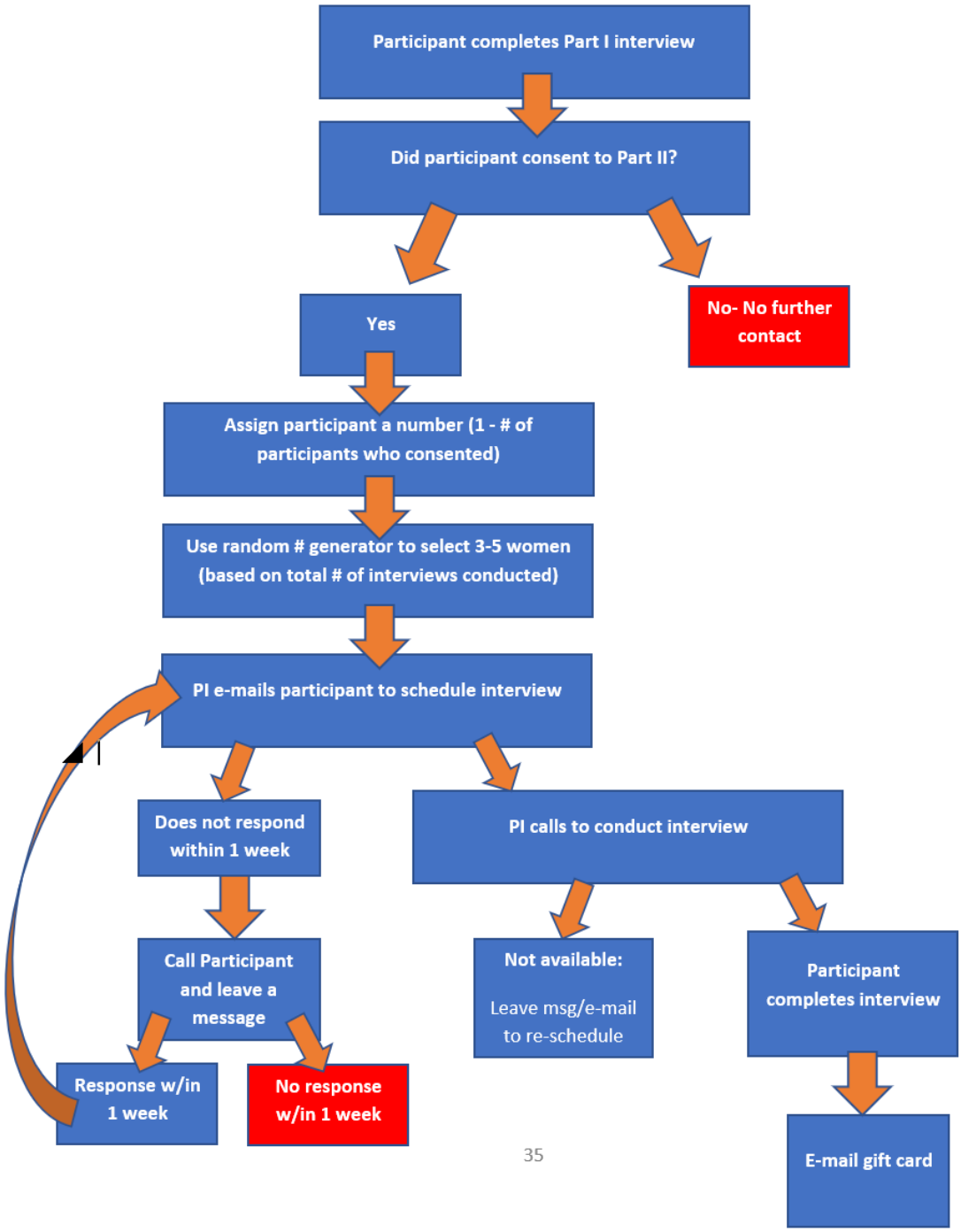
APPENDIX A: PROJECT FLOW DIAGRAM PART I



APPENDIX B: PROJECT FLOW DIAGRAM PART II



APPENDIX C: RECRUITMENT FLYER

Maternity Experiences of Active Duty Service Members

A study conducted through the University of North Carolina at Charlotte (www.uncc.edu)

This research study seeks to better understand the experience of pregnant active duty service members. Would you like to share your story to help improve the lives of other active duty women? Would you like your story heard? We want to speak with you!

Eligibility

- Serving active duty in the U.S. Air Force
- Pregnant with your first child and currently in your 2nd or 3rd trimester OR within 3 months post-partum with your first child
- Ranked O-3 or below, or E-6 or below
- Serving in the capacity of line personnel (i.e. not considered medical personnel, JAG, or a chaplain)

Participation will involve: A telephone interview (aprox. 60 mins) in which you will answer open-ended questions about your maternity experience while serving active duty

All Participants will received a $30 gift card for completion of the interview

To schedule an interview, please complete a brief (6 question) survey and consent form at the following link:

https://unccpsych.az1.qualtrics.com/jfe/form/SV_eXqYfVNnyrLwTdz

Approximately 5 participants will have the option to complete Part II of the study, which involves an additional $20 Amazon gift card in return for reviewing initial study results (aprox 10 min) and completing a phone conference focus group with 2-4 other women (aprox 10 min)

Investigators: Magin Day, Doctoral Student, Health Psychology Program and Virginia Gil-Rivas, Ph.D., Program Director, Health Psychology Program/ IRB #17-0501

APPENDIX D: SCREENING QUESTIONNAIRE

1. *What is your current rank?* (Confirm E-5 or below or O-3 or below)

2. *How many years have you served?*

3. *What is your AFSC? And what is your career field name, in civilian terms?* (Confirm line-personnel—no medical, chaplain, or lawyers)

4. *How old are you? If you don't feel comfortable answering that question, you could also give me a range, say "between 40 and 45 years old".*

5. *How many weeks have you been pregnant?* (Confirm 12 weeks or more) or *How long ago id you have your child? (*Confirm within 3 months post-partum)

6. *Have you ever given birth to a child prior to your current pregnancy?* (Confirm no prior births)

If participants answer screening questions so as to be ineligible for participation:

Thank you for your interest in our study. Unfortunately, it looks like you are not eligible to participate at this time. Would you be interested in being re-contacted if our eligibility requirements for this study change? If you select "Yes" below, your answers will be saved and so that you may be contacted again if our eligibility requirements change. If you select "No" below, your answers will be destroyed right away and will not be used for research.

APPENDIX E: INTERVIEW PROTOCOL

Introduction to Interview:

Hello _____, my name is Magin Day. I'm a doctoral student at the University of North Carolina, Charlotte and I'm calling in hopes of interviewing you for the research study you expressed interest in participating in. We had scheduled an interview for this time, but I realize things get busy and plans change, is this still a good time for you?

Negative response:

No problem. Are you still interested in participating in the study at a later date? Would you like to re-schedule the interview now?

Positive response:

Great. I appreciate your time today. Before we get started, is it alright with you if I read a short blurb on confidentiality? Great! The responses you provide today will be kept completely confidential. Results of this study will include a synthesis of many participant's answers, or short direct quotes, such that no one will be able to identify your responses. Your real name will not be attached to these responses at any point in the study process. Additionally, if at any time you become uncomfortable during the interview, please let me know and we can stop. You may also chose to withdraw your participation at any time. I also want to remind you that this interview will be voice-recorded. Do you have any questions before we get started?

Great! Before I begin the recording, I would like to ask you for a pseudonym I may use in place of your real name throughout the interview, to protect your confidentiality. What would you like me to call you throughout the interview?

Thank you. I will turn on the recording now. (Begin recording)

Alright, I am here with _____ (enter pseudonym). *Today is* _____ (enter the date), *and we are beginning the interview for the qualitative study on the experiences of pregnant ADSMs. First, I would like to begin with some simple, very short questions.*

DEMOGRAPHICS

1. *What is your current rank?* (Confirm E-5 or below or O-3 or below)
2. *How many years have you served?*
3. *What is your AFSC? And what is your career field name, in civilian terms?* (Confirm line-personnel—no medical, chaplain, or lawyers)
4. *How many weeks have you been pregnant?* (Confirm 12 weeks or more) or *How long ago did you have your child? (*Confirm within 3 months post-partum)
5. *Have you given birth to a child prior to this current pregnancy?* (Confirm 0 additional children in the home)

Inclusionary criteria are NOT met:

Thank you for sharing that information with me. I really appreciate your willingness to take the time to talk with me and participate in this study! I noticed you mentioned that (indicate response that did not meet study criteria). *Unfortunately, we are currently looking for women with (*mention study criteria) *because (*explain why… refer to methods section in which

inclusionary/exclusionary criteria are described). *However, I wonder if you would be interested in being contacted in the future if our inclusionary criteria for this study change?*

Inclusionary criteria ARE met:

Thank you! Now, I would like to move into more personal questions about your experience being pregnant while serving active duty. These questions are open-ended and sometimes may seem vague. I am most interested in learning about your experience in your own words and you may choose to say as much or as little as you would like. There are no right or wrong answers to any of these questions and I would like you to feel comfortable expressing your honest opinion and experiences with me. As a reminder, these responses will be kept completely confidential. Results of this study will include a synthesis of many participant's answers, or short direct quotes, such that no one will be able to identify your responses. Your real name will not be attached to these responses at any point in the study process. Additionally, if at any time you become uncomfortable during the interview, please let me know and we can stop. You may also chose to withdraw your participation at any time. Do you have any questions before we begin?

BACKGROUND

Alright, I would like to begin with gathering some background information:

1. *First, would you mind sharing what led you to decide to serve in the military?*

Now I have some short background questions about your pregnancy:

1. *What type of medical provider are you seeing for your maternity needs? (Military? Civilian? Specialist?)*

2. *Would you be willing to speak about your experience with the medical care you received during your pregnancy?*

3. *How far along were you in your pregnancy when you started receiving care?*

4. *As you think about this pregnancy, was this something that you planned?*

(Note to self: remember that just bc it wasn't planned doesn't mean it wasn't welcomed)

The first question is very broad. I would like to hear, in your own words…

1. *What has it been like to be pregnant while serving active duty?*

Thank you for sharing your experiences with me. Now, I would like to move into talking about how you have experienced your work climate during pregnancy. The first questions will ask about interactions with your leadership.

INTERACTIONS WITH LEADERSHIP & COWORKERS

1. *How did your leadership learn of your pregnancy?*

Probes:

- *If your leadership was notified automatically from a medical treatment center, how did you feel about that process?*

2. *How did your leadership respond to learning you were pregnant? (supportive, questioning, hands-off, biased, harassing, etc.) Can you point to some behavioral examples?*

Probes:

- *Tell me more about what challenges you faced with leadership?*
- *What were some examples of ways in which you found your leadership supportive?*

These next few questions will ask about your interactions with coworkers.

1. *How did your coworkers learn of your pregnancy?*
2. *How did your coworkers respond to learning you were pregnant?*
3. *In what ways, if any, have your social interactions with coworkers changed since becoming pregnant?*

Probes:

- *Could you provide an example of a time when you felt you were treated differently (for better or worse) because of your pregnancy in a social situation?*

ACCOMMODATIONS

Changing gears a bit here… The next section of this interview will be inquiring about accommodations.

1. *In what ways, if any, have your daily tasks at work changed during your pregnancy?*
2. *How do you feel about these changes?*

Probes:

- *Are you satisfied with these changes? (tell me more about this)*
- *Tell me about a change that has benefited you?*
- *Tell me about a change that has hindered your work experience while pregnant.*

3. *Has your work schedule changed during your pregnancy?*
4. *How do you feel about these changes?*
5. *What other work accommodations, if any, have been made during your pregnancy?*
6. *How would you describe your experience with these accommodations?*
7. *Can you share an example about a time when these accommodations have helped/benefited you?*
8. *What about a time when they have not benefited/helped you?*

Probes:

- *Can you think of any times in which you experienced negative consequences as a result of using an accommodation?*

Thank you, again, for sharing your experience with me. There are only a few questions left in this interview.

PHYSICAL/PSYCHOLOGICAL HEALTH

1. *In what ways, if any, do you believe your work has affected your experience of pregnancy?*

   Probes:

   - *You may consider things such as your physical and psychological health, ability to follow medical recommendations, or your ability to plan or prepare for the arrival of your baby.*

CAREER PLANS/RETENTION

2. In what ways, if any, do you believe your experience of being pregnant while serving has affected your future career goals?

Probes:

- *What about your desire to remain in the military?*

SUGGESTIONS FOR IMPROVEMENT

3. Given your experience, what suggestions would you have to help improve the experiences for other pregnant ADSMs?

Probes:

- *You may consider military policies, things you would want leadership to know, or even advice you would give other women.*

4. *Finally, how would you complete this sentence:*

   Being pregnant as an active duty service member is like _____?

Thank you for sharing your experiences with me today. Before we end the interview, I would like to open this space up to you:

Is there anything I have not asked you about today that you feel is important for military leadership and policy makers to know about how you, or women in general, have experienced pregnancy while serving active duty?

APPENDIX F: STUDY THEMES

Theme	**Sub-Themes**	**Main Theme Frequency**
Female and pregnancy: The underlying stigma/bias/harassment of females in general in a male-dominated military and **how** pregnancy makes women extra seen		**11 Interviews** **26 References**
Negative stereotypes and stigma	**Harassment:** Women are treated poorly before/during pregnancy and added responsibility of child leaves little room for coping with continued harassment	**30 Interviews** **199 References**
	Less Disciplined/Lazy/Weak: Physical changes interpreted as "getting fat" "less fit". (view of women as lazy/weak as in unable to resist cravings or make themselves work out…women feel ashamed) Wearing ill-fitting uniform exacerbates this for women due to military bearing and unprofessional look/ "always on parade"	
	Getting out of work: Duty limitations viewed as purposeful manipulation of the system or exaggeration of pregnancy symptoms to avoid work (view of women as deceitful?)	
	Unfairness/animosity: View of pregnancy as granting a member an unfair advantage/lesser amount of work or responsibility and act out with hostility towards member	

Good for me/bad for others: Women hedging their good experiences with pregnancy in the workplace by acknowledging that they are in the minority and "it is worse for others". Expectation of difficulty with this experience.		**13 interviews** **26 references**
Covering behaviors: Actions women take to avoid fitting into the stereotype (shame)/prove the stereotype wrong (trying not to be seen… delay wearing pregnancy uniform, not wearing tennis shoes); avoid telling leadership; job change; scheduling of apts; TDYs min preg with 16 hr days 5 days a week; explain self); separate; hide pain or fatigue; take leave rather than ask for accommodations		**30 interviews** **85 references**
Navigating changes in job tasks - Usual job tasks are unable to be performed due to health concerns (profiles)… Exception: people with "desk jobs" (not involving	**Unaware leadership:** Changes to work tasks viewed as demeaning (challenge to self-worth/self-efficacy/social standing)	**30 interviews** **236 references**
	Supportive leadership: **-** Women feeling like a productive member of unit during pregnancy (sense of meaning/purpose…valued/self-worth) - Job task change during pregnancy benefited member's career - Changes at work (tasks and hours) during pregnancy benefited	

traveling) stay the same. - Modified shifts as women become fatigued. - Moving from night to day shifts	physical/mental health directly (decreasing stress/fatigue)	
	Shift in priorities: To PEOPLE (including self) rather than mission (personal safety related to health of child during pregnancy, family & other people after pregnancy)	
	Lived values: Women experience increases in compassion towards others during/after pregnancy - improves leadership because pregnancy/family life helps members truly embody service (of OTHERS) before self and LIVE it in a way that they only rote learned about before (i.e. caring for Airmen first rather than mission). - Shift of focus to PEOPLE, compassion/understanding/empathy for others.	
	Change in career trajectory: Pregnancy/shifting priorities change the direction of career (homesteading/less deployments/less TDYs/poor performance reports affecting rank/management or admin position during pregnancy kicks off fast track to leadership)	
Confusion	**Ambiguous policy:** Both leadership & women unaware of policy or confused about how to enact non-specific policy (i.e. "8 hour work days recommended")	**24 interviews** **103 references**
	Unaware of resources: Women unaware of resources that are available to them to aid in pregnancy	

	Own research/networking/advocating: Women feel compelled to research their rights and the regulations. This is largely done through networking. They then must advocate for themselves because leadership does not understand/know policy and medical/insurance/leadership can have conflicting information.	
	Alone/1st person: Feeling/believing they are the first woman to be pregnant in the military/in their career field	
Military Pregnancy announcements (Loss of control over information/lack of privacy)	**Org. Demands:** Organizational demands make it so that women cannot choose when to announce (TDY/Deployment/PT test/must move away from workplace hazards/automatic notification/need uniform allowance)	**30 interviews** **80 references**
	Vulnerability: leaves women vulnerable (possible miscarriages/unplanned pregnancy) which is counter to military bearing	
	Stigma: kicks off stigma/being treated differently which women have not yet prepared for	
Health concerns: Org policy not meeting needs of/protecting mental/physical health of women (too unclear/too open for interpretation)		**25 interviews** **88 references**

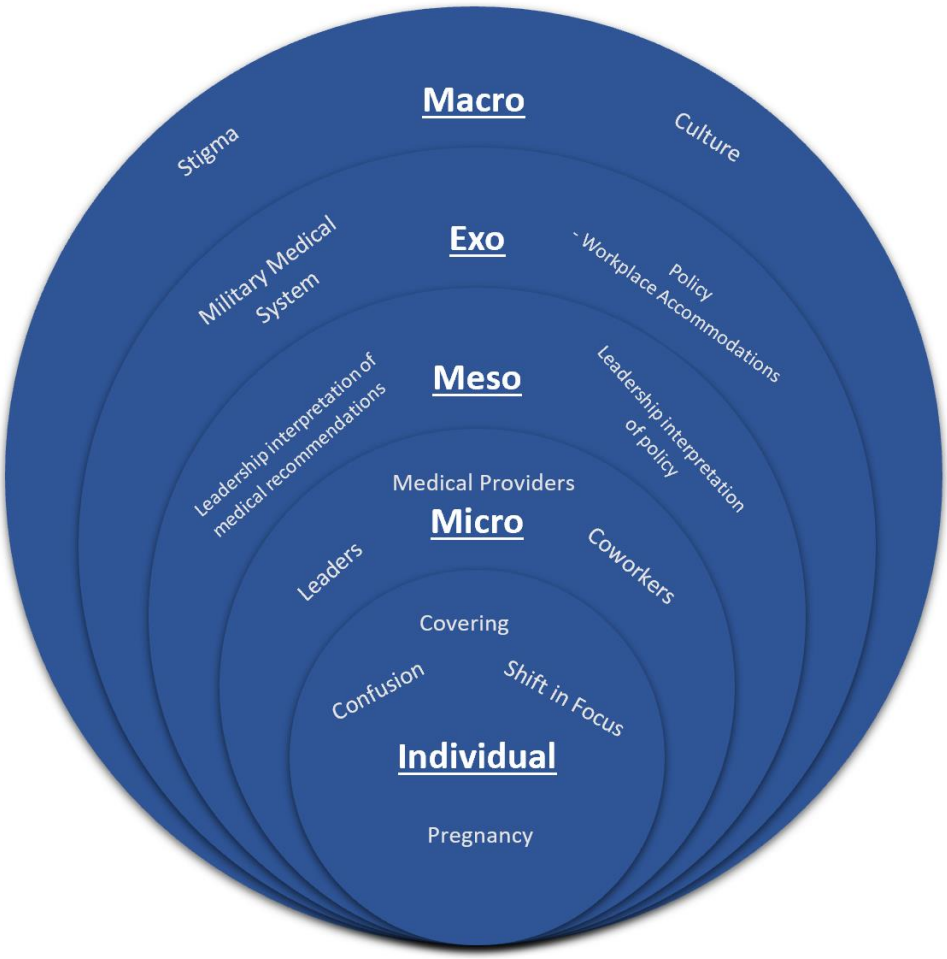
Medical Care: Women's trust in medical care is important to feeling safe/reducing stress and need for researching (which they already do enough of with military policies).	**Distrust in military medical care:** - Dr.s can't be sued - Dr.s not experienced w/maternity or feminine issues - Member has significant negative experiences with system prior - Dr.s not listening to women's needs - Dr.s perceived as not "up to date on regulations and policies" or "research on what's most effective and safe" when it comes to pregnancy medical practice - Dr.s not listening to women or taking them seriously - Dr.s not explaining things/keeping things vague	**30 interviews** **78 references**
	Trust in civilian medical care: - women can choose own Dr. - they know the provider sees lots of women/specializes in women - they can see the same provider for the duration of pregnancy to "develop a working relationship" - provider has understanding of military culture (non-judgmental about partners overseas) - provider finds things that woman don't have to point out first (my son was breeched and not growing at an acceptable rate; Since it's my 1st pregnancy I don't know what to ask), - Dr.s explaining things in detail - Dr.s informing women what of their options (delayed cord clamping, skin to skin, etc) bc they don't know what to ask	

	- Women feeling heard and included in medical decisions - Dr.s available and spend time/not making women feel hurried - *Women prefer civilian providers but it is even better* if it's a civilian working on a mil base	
Interpretation of accommodations	**Need-based:** Interpretation of policy clearly based on needs/safety of member (this may appear as "lenient" interpretation of policy)	**11 interviews** **21 references**
	Mission-based: The idea that "pregnancy is not a medical condition" so should not be accommodated unless a medical doctor writes a note. (this may appear as strict interpretation of policy… 8 hr work days is decreased from 10 or 12 hour days but the member is not allowed to leave early if feeling ill/fatigued)	
Leadership style	**Proactive and empowering:** - Avoiding making decisions on women's behalf based on assumptions about what they would/would not feel comfortable doing during pregnancy - Trusting/supporting women who ask for accommodations/considerations (that fall within established policy) based on health needs during pregnancy (i.e. feeling sick and needing to go home) and not questioning women's intent or decisions - Making it clear to women that certain accommodations are available to them without them	**30 interviews** **100 references**

	having to ask for them/before they have thought to ask. Alleviates guilt and conveys understanding that woman will not be expected to remain unchanged during pregnancy - Relieves pressure for women and guilt in using these accommodations	
	Authoritarian: - TELLING women what tasks they will not perform based on assumptions of what is safe (i.e. Grabbing chairs away "you shouldn't be stacking chairs") - This does NOT include medical profiles and is NOT in response to a physical health concern (i.e. taking a woman off the line/removal from flying) - Leads women to feel as if they are being treated as "disabled"	
	Lack of action/acknowledgement: Failing to take action on medically-necessary accommodations (i.e. moving member away from chemicals) or failing to make a permanent decisions about an accommodation such that a woman has to ask/advocate daily to use an accommodation - Conveys lack of care/concern about member's health and safety and leads to feelings of guilt and anxiety on behalf of women - Leads to Physical safety concerns and interferes with trust in	

	leadership/motivation to work. Creates fear	
Retention of pregnant service members - Dependent on women's ability to view being a mother as compatible with military service	**Leadership actively address harassment:** Leadership stepping in to head-off negative comments/patterns of bias increased compatibility	**30 interviews** **58 references**
	Emotional support: Asking "how are you?" or "how are things?" increased compatibility	
	Physical support and advice: Baby showers/meal delivery/carrying heavy things and offering wanted/friendly/supportive advice increased compatibility	
	Shared excitement: Perceived sincere excitement over pregnancy increased compatibility	
	Seeking stability: Need stable environment so that attention can be given to care for child/family. Military demands of unstable work hours, frequent moves, and deployments interferes with ability to focus on caring for children/family. Civilian jobs allow for a better balance because of more predictability (less mental energy spent on responding to environmental uncertainty = more mental energy to BE with family)	
	Benefits: Good income, free medical care make military attractive for single women or women with a none-working partners	

APPENDIX G: AXIAL CODING WITHIN THE BIOECOLOGICAL MODEL



APPENDIX H: MODEL OF FACTORS CONTRIBUTING TO HEALTH AND WELL-BEING AMONG PREGNANT ADSMS