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Qatari Women's Autonomy and Stress during Pregnancy

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Bachelor of Arts
Dickinson College
2010

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An abstract of
A thesis submitted to the Faculty of the
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Abstract

Qatari Women's Autonomy and Stress during Pregnancy
Alana Garvin

Patriarchal societies are dominant throughout the world, and the level of gender inequality and inequity is particularly high in Qatar. There is strong evidence that globally women's social status is linked with their health outcomes, and current evidence demonstrates that this is also true for mental health. Recently, relatively high levels of antenatal depression have been reported within the Middle East, compared to Western countries, and prevalence of and risk factors for antenatal mental health issues in Qatar are unknown due to a lack of research. Prior research from the Middle East informs us that there are a number of human and social factors associated with mental disorders during pregnancy, and women's agency is a force that likely impacts these factors. In order to better understand pregnant Qatari women's mental health, we examined how Qatari women's decision-making autonomy influences their mental health during pregnancy. Grounded theory was used to analyze 25 in-depth interviews with pregnant Qatari women. The analysis revealed a potential inverse relationship between pregnant Qatari women's decision making-autonomy and their experiences of stress during pregnancy. The women with the least autonomy experienced high continuous stress compared to the women with the greatest autonomy who experienced low and often short-term stress. The pattern was less clear for women with varied autonomy. The analysis also shows that the influences of women's autonomy on experiences of mental health during pregnancy are likely impacted by the marital and social support that women feel and have access to. Further research, including quantitative research, is necessary to further explore the validity of this potential relationship discovered through this exploratory qualitative research. Should it prove valid, action will need to be taken across several different arenas in Qatar, most importantly around women's empowerment both within the family and society and within prenatal care to include or improve screening and treatment for stress, anxiety, and/or depression.

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I. Introduction

Introduction and rationale

Since the mid 1970s and 1980s, the State of Qatar began to see the results of its investment in maternal education and also began to invest in health care (including perinatal and neonatal care) and social infrastructure. As a result its poverty level has decreased and as of 2008 Qatar has the highest Gross Domestic Product (GDP) per capita in the world (Rahman, Salameh, Bener, & El Ansari, 2010). Concurrently, maternal and childhood mortality rates have improved and are comparable with other high-income countries (Rahman et al., 2010). A recent study has demonstrated that these social improvements have been temporally associated with improved maternal, neonatal, and perinatal survival rates (Rahman et al., 2010). From 1974 - 2008 maternal mortality has remained low (approximately 10/100,000 per year) and for several years (1993, 1995, and 1998-2000) it dropped to zero, while neonatal mortality dropped from 26.27/100,000 in 1974 to 4.4/100,000 in 2008 and perinatal mortality dropped from 44.4/100,000 in 1974 to 10.58/100,000 in 2008 (Rahman et al., 2010). These improvements in maternal and childhood mortality allow for increased focus on maternal morbidity, including mental health, in Qatar. Mental health, as defined by the World Health Organization, is "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (World Health Organization, n.d.-b).

Recently, Qatar's National Health Strategy for 2011-2016 called for the creation of a comprehensive women's health program, which would include enhanced prenatal care and a focus on postpartum depression (General Secretariat, 2013). This new focus within women's health is called for within the context of recently reported relatively high levels of antenatal depression within the region compared to Western high-income countries, (Abujilban, Abuidhail,

Al-Modallal, Hamaideh, & Mosemli, 2014; Alami, Kadri, & Berrada, 2006; Mohammad, Gamble, & Creedy, 2011) and higher levels of postpartum depression (PPD) within Qatar compared to Western high-income countries, though generally on par with other Middle Eastern countries (Bener, Burgut, Ghuloum, & Sheikh, 2012; Bener, Gerber, & Sheikh, 2012; Burgut, Bener, Ghuloum, & Sheikh, 2013). Although women's mental health in the Middle East is beginning to gain more attention, the prevalence of and risk factors for antenatal mental health issues in Qatar are particularly unclear due to the lack of research on this topic in Qatar.

Prior research from the Middle East, low- and middle-income countries, and the United States informs us that there are a number of human and social factors, such as poor marriage relations, experiences of intimate partner violence (IPV) or violence (Fisher et al., 2012; Lancaster et al., 2010; Kathryn M. Yount & Smith, 2012), poor relationships with mother-in-laws (Fisher et al., 2012; Mohammad et al., 2011; Kathryn M. Yount & Smith, 2012), poor social support (Fisher et al., 2012; Lancaster et al., 2010; Mohammad et al., 2011; Kathryn M. Yount & Smith, 2012), and educational levels (Lancaster et al., 2010; Kathryn M. Yount & Smith, 2012), that are associated with antenatal and or postpartum mental disorders, generally depression. Understanding the influence of these human and social factors' on antenatal mental health is key to improving both maternal morbidity and improving child growth and development, which has been shown to be affected by poor maternal mental health (World Health Organization, n.d.-a). In particular, a better understanding of women's agency, a key aspect of women's empowerment (Kabeer, 1999), in a context where many women have differing access to enabling resources, such as education and wealth, may help to explain aspects of Qatari women's maternal mental health during pregnancy. Women's agency, defined by Kabeer (1999) as "the ability to define one's goals and act upon them," and often

"operationalized as 'decision-making'" but can also "take the form of bargaining and negotiation, deception and manipulation, subversion and resistance as well as more intangible, cognitive processes of reflection and analysis," is a force that likely impacts all of the above mentioned associations with antenatal and or postpartum mental disorders (p. 438). A better understanding of women's agency and their mental health during pregnancy may help to explain some of these previously explored risk factors for antenatal and postpartum depression.

Problem statement

Patriarchal societies, in which women maintain a lower status compared to men, are dominant throughout the world, and the level of gender inequality and inequity is particularly high in the Middle East. There is strong evidence that globally women's social status is linked with their health outcomes (World Health Organization, 1998), meaning that when women have a lower social status they tend to have poorer health outcomes. Current evidence demonstrates that this is also likely true for mental health. In a fifteen-country study, the majority of which were high-income, researchers observed that in all of the cohorts and countries women had higher levels of anxiety and mood disorders compared to men, and as traditional female gender norms changed there was a significant and temporal narrowing between genders in major depressive disorders. However, only two countries from the Middle East, Israel and Lebanon, were included in the study (Seedat, Scott, Angermeyer, & et al., 2009). Hill and Needham's recent critical analysis of the mental health literature also concluded that women's higher rates of anxiety, stress, and depression globally can be explained by the stratification theory, meaning the existing gender differences in mental health can be "at least partly explained by gender differences in status, power, opportunities, and resources" (Hill & Needham, 2013, p. 87). These gendered global trends in stress, anxiety, and depression are also born out specifically in the

Middle East region (Douki, Zineb, Nacef, & Halbreich, 2007). Prior to Hill and Needham's critical review, Douki et al.'s (2007) examination of culture, religion, and society in relation to women's mental health in the Muslim world concluded that gender inequality is a major determinant of women's high mental morbidities and that women's empowerment is key to lowering them, stating that the, "protection of women's mental health is not only a medical challenge but a cultural one," (p. 188).

Though researchers have conducted limited studies so far on maternal mental health in the Middle East, evidence points to a higher prevalence of anxiety, stress, and depression during the antenatal and postnatal periods in the Middle East (between 13-53%), compared to Western and other high-income countries (Abdelhai & Mosleh, 2015; Abuidhail & Abujilban, 2014; Abujilban et al., 2014; Alami et al., 2006; Bener, Burgut, et al., 2012; Bener, Gerber, et al., 2012; Burgut et al., 2013; Hamdan & Tamim, 2011; Mohammad et al., 2011; Kathryn M. Yount & Smith, 2012). Globally, about 10 percent of women experience a mental disorder during pregnancy, largely depression, and about 13 percent of women experience a mental disorder after giving birth; however, prevalence tends to be higher in low- and middle-income countries (World Health Organization, n.d.-a). The global prevalence of antenatal depression, and its higher prevalence in certain regions, is concerning, because a number of prospective studies have shown that the children of women who experienced stress, anxiety, or depression during pregnancy were more likely to experience adverse neurodevelopmental outcomes, including increased risk of emotional, behavioral, and cognitive problems compared to the children of women without these conditions. Additionally other research has demonstrated that "prenatal stress can cause lower birthweight for gestational age, earlier delivery and pregnancy, induced hypertension, and altered physical outcomes, such as an increased risk of asthma" (Glover, 1999,

p. 26). Researchers in Jordan have also demonstrated that antenatal depression was significantly associated with PPD within its Jordanian study population (Mohammad et al., 2011).

Researchers have neglected the study of PPD in the Arab Middle East compared to other regions of the world (Kathryn M. Yount & Smith, 2012), and they have paid even less attention to Middle Eastern women's mental health during pregnancy. An unpublished systematic review of women's available human and economic resources and their associations with pre- and post-natal mental health in the Arab Middle East discovered only 22 studies, which met their criteria for inclusion. Of these studies, only four exclusively focused on the prenatal period and three studies focused on both periods (James-Hawkins, 2017). Though we can begin to learn about influencing factors on prenatal mental health from these studies, it is difficult to draw conclusions from them, because they tend not to be robust, used different measurement scales, scale cut offs, and are not nationally representative. Additionally, none of the prenatal focused studies were conducted in a Gulf state. This is problematic when examining Qatar, because Gulf states, such as Qatar, are oil rich countries characterized by greater wealth and restrictions on women, compared to several other non oil rich Arab states in the Middle East, meaning that the findings from study populations in non-Gulf states are unlikely to be directly applicable to populations in the Gulf. Qualitative research on maternal mental health in the Middle East, which could help explore a more nuanced understanding of known associations with pre- and post-natal mental health disorders and discover other unknown possible influencing factors, is also limited. No qualitative studies (published in English) examining women's mental health during pregnancy in the Middle East, or any research directly on women's agency or empowerment in Qatar were discovered. This lack of evidence means there is limited knowledge from women's own perspectives on the context of decision-making amongst pregnant and non-pregnant Qatari

women in order to achieve their own goals and how their level agency may affect their mental health during pregnancy.

Understanding Qatari women's agency in the context of their mental health during pregnancy could be key to understanding influencing factors on prenatal mental health considering that gender disparities in status, power, opportunities, and resources (all of which agency impacts) may partly explain the higher prevalence of anxiety, stress, and depression amongst women compared to men. Understanding whether and how agency, operationalized through decision-making, influences pregnant Qatari women's mental health could lead to better prenatal mental health prevention, screening and treatment, which could improve the health of women during pregnancy, help prevent women from potential PPD, and improve the health and development of women's future children.

Purpose statement:

In order to better understand pregnant Qatari women's mental health, this paper will aim to answer the following research question: how does Qatari women's decision-making autonomy influence their mental health during pregnancy? To answer this question the paper will examine:

- In what contexts do Qatari women make decisions?
- How does Qatari women's decision-making autonomy vary in different contexts?
- What factors limit or expand Qatari women's decision-making autonomy?
- What are the perceived common causes of stress for Qatari women during pregnancy?
- How do Qatari women experience stress, anxiety, and depression during pregnancy?
- What other factors influence Qatari women's mental health during pregnancy?
- How do other factors influence Qatari women's mental health during pregnancy?

Significance statement

The findings from this research will lead to a more nuanced understanding of the context of Qatari woman's agency and how it may influence her mental health. The discussion of antenatal mental health may lead to greater screening for it during prenatal visits in Qatar and possibly other countries in the Middle East. In order to prevent poor mental health outcomes during pregnancy, the results also have the potential to influence policies towards women's status and agency in Qatar. If we have a better understanding of mental health issues during pregnancy policy makers and clinicians can work to better prevent it, improve maternal morbidity, and improve child growth and development.

II. Literature Review

Introduction

The following section presents an overview of the current knowledge on women's social status both within the Middle East generally and more specifically within Qatar along with an overview of the literature on women's maternal mental health in the Middle East, focusing on antennal mental health, mostly depression, and the existing studies conducted in Qatar. With the exception of studies by Yount (K. M. Yount, Dijkerman, Zureick-Brown, & VanderEnde, 2014; Kathryn M. Yount & Smith, 2012), there has been little examination of the ways in which gender, women's empowerment, or women's agency may influence women's mental health and no examination of how women's empowerment or agency may influence women's mental health during pregnancy in the Middle East. Research on women's status primarily come from sociologists and political scientists, while the literature on women's mental health are from the public health and biomedical fields and are mostly based on quantitative studies, with one-mixed methods study and no qualitative studies. The literature reviewed are published studies primarily

in peer-reviewed journals and all articles were published in English. The studies examined for this review were primarily gathered through the examination of secondary sources and different reviews of the literature on women's status and maternal mental health.

Women's status in the Middle East

The literature on women and gender in the Middle East has expanded greatly over the last 40 years, especially in more recent years since 2000. Much of the research has come from historians and anthropologists, though women's studies scholars, political scientists and sociologists have increasingly added to it (Charrad, 2011). Charrad (2011) writes that the literature has had "two objectives as its mandate: first, to dismantle the stereotype of passive and powerless Muslim women and, second, to challenge the notion that Islam shapes women's condition in the same way in all places," (p. 417). Haghighat (2013) writes that Islam is just one of several factors, including demographic changes, economics, political landscape, and regional instability, in determining women's status in the Middle East, while Cherif (2010) concludes that the findings from her own analysis of the relationships between Islam, norms building, and core rights with "women's acquisition of equitable citizenship rights" in 120 developing countries, suggest that Islamic culture is a barrier to women's equality under national laws, specifically rights to inheritance and nationality. However, Cherif (2010) also concluded that the promotion of "women's core rights" in education and labor force participation can mitigate these effects.

Another explanation for why gender inequality and patriarchal norms have remained high in the Middle East may relate to oil supply. Ross (2008) argues that the onset of oil production in many Middle Eastern countries made it unnecessary for women to enter the paid workforce and in turn this led to their lack of participation and influence in politics. He rejects the idea that Islam is the cause of patriarchal norms remaining high in the Middle East and instead concludes

that oil rents are the major factor influencing the ongoing gender inequality and high level of patriarchal norms in oil producing Middle Eastern states. His conclusions are primarily based on associations between per capita oil rents and female participation in the labor force and female parliamentary seats and ministerial positions and the lack of significant associations between Islam and his dependent variables. However, he also notes that his data actually demonstrates that female education increased after the 1970s, when oil rents rose considerably in the Middle East, and that several oil producing states outside of the Middle East, such as Uzbekistan, Turkmenistan, and Mexico, did not fit with his conclusions due to actions by their governments (Ross, 2008). Charrad (2009) rejects Ross's conclusions that oil is the main influence in women's lack of participation in the paid labor market and government. She points out that many oil rich states in the Middle East, many of which are in the Gulf, have had a long history of having tribal or kin-based patriarchal societies and institutions. She explains that their current political systems and oil economies grew out of their strongly patriarchal kin-based networks. Charrad argues that "political systems that build their power on kin-based patriarchal networks tend to curtail women's rights, whereas those that have historically evolved to be relatively autonomous from such networks tend to favor more women-friendly policies," (Charrad, 2009, p. 548). She concludes that we still need to better understand the relationship between kin-based patriarchal networks and gender inequality both of which are highly prevalent in the Middle East (Charrad, 2009).

Throughout the region there is a great deal of variation in women's social position by state. Across the region women have the ability to vote, but depending on the state there are some restrictions on their voting ability (Saudi Arabia) (Charrad, 2011). Charrad (2011) writes that Islamic family law is a "major determinant of women's legal status," (p. 423) and that

scholars of gender studies have demonstrated that Islamic family law has been applied differently across states and over time and often women's lived experiences of the application of the law are different from the normative law. Additionally, sovereign nation states' codification of Islamic law (the creation of a systemized legal code based on the Quranic and Hadith's "principles to be followed in regard to the family") has had different effects on women depending on the context (Charrad, 2011, pp. 420-421). In Tunisia, the codification actually expanded women's rights but in neighboring Algeria and Morocco it did not (Charrad, 2011). Charrad (2011) explains that, "the central issue at the core of family law reforms is the place of the extended patrilineal kinship system in the fabric of the law and the extent to which the law allows women to gain autonomy from patriarchal networks," (p. 423). Over the last fifty years, patrilineal kinship networks' political influence has lessened and some Middle Eastern states have responded to international pressures and women's demands for greater rights and reform to family law beginning in the early 1980s (Charrad, 2011).

Over the last several decades, nationalism has tended to take precedence over women's issues in the Middle East. Some have argued that both Islamists and secularist have agreed on the importance of domesticity for women, and as Middle Eastern states have modernized, they have worked to prevent the expansion of women's rights. Other researchers have shown that the economic and political priorities in some states merely took precedence over gender issues and other scholars have focused on how women's issues became entwined with the state's "political strategies and power struggles" (Charrad, 2011, p.423). While still further research has demonstrated that women's status in the region has been linked to their fertility and motherhood. In some Middle Eastern countries, such as Egypt, state policies have pushed back against these

social norms in order to lower national fertility rates and enhance their national development (Charrad, 2011).

Since the early 1980s, throughout most of the region a diverse range of women's associations, organizations and movements have developed. They have tended to differentiate themselves from Western feminists, who they associate with a colonial legacy, and more recently Islamic feminism, feminism grounded in Islam and the reinterpretation of the Koran and other Islamic texts to achieve equality for women, has become more prominent (Charrad, 2011). Charrad (2011) explains, "running through the studies on women's agency are two related themes: the persistence of patriarchal structures in family, work, politics, and religion, and at the same time the notion that women constantly push the boundaries by creating realities beyond strict moral codes and developing alternate institutions and practices either collectively or individually in their daily lives. Women not only bend the rules but over time construct new social realities and, by so doing, in effect change the rules altogether," (p. 427).

Compared to all other regions in the world, women in the Middle East participate the least in the paid workforce; however, women's educational attainment has been increasing and fertility rates have been decreasing so that they are more in line with the other areas of the world (Charrad, 2011). Although advancing women's education is often an important aspect of empowering women, research has demonstrated that increases in women's educational attainment throughout the Middle East has not necessarily improved their social status, as has been the case in Lebanon and Iran (Haghighat, 2013). One reason that may help explain this is that when parents have their daughters educated in Islamic societies, its purpose has often been to prepare their daughters for marriage and motherhood (Douki et al., 2007) or to improve their status via marriage (Haghighat, 2013). Douki et al. (2007) also explains how women's

educational advances may actually be creating a greater burden on women, writing, “women who have become more educated and free to move outside, are nowadays required to be in charge of family tasks that previously were in men's domain, such as shopping or supervising children's homework,” (p. 181). Today, educated women throughout the region are marrying later and having fewer children than they did historically (Haghighat, 2013).

As women have begun to work increasingly outside of the home, they have largely entered and remained in the fields of education, health, or the textile industry and have continued to be in positions subordinate to men. They are also still expected to take care of the home, their children, and, in accordance with the Koran, be obedient (Douki et al., 2007). In addition to the region’s comparatively low level of female employment, the lowest rates of women’s employment are in the Gulf region (United Arab Emirates (UAE): 13%; Saudi Arabia: 15%), where men can also earn between three to five times more than women. Though relatively few women may be working in the Gulf, research from UAE has shown that though men control household finances, women do tend control the money that they earn and are not expected to share it with their husband or household (Haghighat, 2013).

Status of Qatari women

To date, little has been published in the English peer reviewed literature on Qatari women and their position within the home and Qatari society. However, the existing literature shows that over that last several decades, Qatari society has been changing and there has been increasing freedom and access to resources for women. Much of the change in women’s status has come top down from the government as opposed to bottom up from the people, and it is taking longer to become entrenched within the conservative Qatari society. For example, in the mid 2000s Qatar was the first Gulf state to appoint a woman as a cabinet minister. In addition, the wife of

Qatar's former ruler, Shaikha Mozah bint Nasser al-Misnad, has particularly been credited with improving women's positions in society and encouraging their education. Unlike other women in the Gulf, she has lead a more public life, including traveling abroad and making public speeches both within Qatar and abroad, which has set an example for other Qatari women to enter the public sphere (Bahry & Marr, 2005). Additionally, she has also been credited with working to stop domestic violence (Forbes, 2010).

The government of Qatar opened the first primary school for girls in 1955 and has encouraged education across genders through free schooling, distribution of schoolbooks and equipment in addition to a monthly stipend to those in school. By the late1970s, girls outpaced boys in school enrollment and high school graduation rates. The government has allowed women to attend university since its first university, Qatar University, opened in 1973 and as of 2005 women made up about 70 percent of the student body; however, they study on separate campuses from men and have not been allowed to study engineering. Interestingly, women are allowed to teach on the male campuses. Although, this gender disparity at the university level (which is common in other Gulf states) may at least partially be explained by parents' tendencies to only send male children to universities abroad and the disproportionate number of career opportunities open to men after high school (Bahry & Marr, 2005).

Historically, Qatari women were housewives and often illiterate. Those that worked were often the poor, and they did manual labor such as sewing or herding camels. Since the 1980s there has been a dramatic shift of Qatari women entering the workforce so that there is now about the same number of women working in the public sector as men, but women still lag behind in the private sector (Bahry & Marr, 2005). 50 percent of women, age 15 and above, participate in the labor market compared to 93 percent of men, age 15 and above; however,

women's participation is roughly on par with women globally (UNICEF, 2011). Although Qatar has relatively low male unemployment, its female unemployment is considerably higher (Roudi-Fahimi & Kent, 2007). Much of Qatari society supports women's transition into the workforce, and as in many other high-income countries, two incomes are often desired in order to maintain a high standard of living. However, there still is a conservative minority of the population, both men and women, who prefer that men exclusively support the household and women exclusively remain in the home to raise children and ensure a separation of men and women. Though women now often gain employment after completing their education, many stop working after beginning to have children. Additionally, women cannot work in all sectors of the economy. They have tended to work within the educational system, nursing and public health. Though career opportunities have begun to widen for Qatari women, as of 2005 they could still not work as diplomats in the foreign service, and they were generally not allowed to partake in political, legislative, or economic decision making (Bahry & Marr, 2005).

Women can drive (if their male guardian grants them permission to obtain a license) (UNICEF, 2011) and have had the right to vote in Qatar since 1998, when both men and women were given the right to vote in a municipal election. The first woman was elected to the municipal council in 2003; however, this position has little power. All women are still expected to marry, though the average age of marriage has recently increased from below 18 (Bahry & Marr, 2005) to an average age of 26 years (as of 2004) (UNICEF, 2011). The cost of marriage, including the ceremony, dowry, and required gifts for the bride has likely helped increase the age of marriage (Bahry & Marr, 2005). Since 2006, marriage rates have steadily dropped. Divorce has also become common in Qatar with its 2011 divorce rate at 8.7 per 1,000 women and 10 per 1,000 men (Doha News, 2015). Divorce often leaves women, especially those with children, in

difficult positions in which they often become re-dependent on their parents and unable to remarry. Marriages used to take place primarily within kinship groups (usually between first cousins), but in the last several years young men and women have begun to marry outside of their tribal families (Bahry & Marr, 2005). Qatari women dress conservatively in abyahs, floor – length black cloaks, though recently these have become more form fitting (Bahry & Marr, 2005).

Qatar abolished Shari'a courts in 2003 and introduced family law in 2006, but Shari'a principles still tend to govern the implementation of the law as it relates to marriage, divorce and child custody. Women's testimonies are also not always allowed in court and sometimes do not hold as much worth as men's (UNICEF, 2011). In 2009 it acceded to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), but since then it has maintained the following reservation to articles: "2 (a) (gender equality in domestic laws and policies), 9 (2) (equality with regard to nationality), 15 (1) (equality before the law) and 15 (4) (freedom of movement and of residence and domicile), 16 (1) (a), (c) and (f) (equality in marriage and family life), as well as 29 (1) (an article related to the administration of the convention; i.e. arbitration in the event of a dispute)" (UNICEF, 2011, p. 1). These reservations to CEDAW demonstrate the fundamental gender inequity that women face in Qatar. The level of gender inequity and inequality, which Qatari women face, is also reflected in the Global Gender Gap Repots. Currently, Qatar ranks 119 out of 144 in the 2016 Gender Gap Index (higher numbers equal a larger gender disparity), which quantifies gender disparities between men and women within the areas of health, education, the economy, and politics (World Economic Forum, n.d.).

Gender, women's mental health, and pregnancy in the Middle East

There is a dearth of research examining how gender norms may influence women's mental health in the Middle East, especially mental health during pregnancy. Prior to Yount and Smith's review (2012), previous reviews of the literature on PPD tended to exclude studies from the Arab Middle East. In their feminist critique of the biomedical PPD literature from the Arab Middle East, Yount and Smith (2012) explore the emerging associations between gender and PPD, and conclude that even the limited biomedical focused studies "reveal that (1) poor support, (2) experiences of violence, (3) frustrated efforts to achieve norms of motherhood, and (4) specific features of patriarchal kinship are important contexts within which PPD occurs," (p. 187). Based on the ten studies they analyzed, they found that PPD prevalence rates can range from 13 percent to 53 percent in the region, depending on scale, scale cut off, sample, location, and postpartum time period. Half of their sampled studies came from the Gulf, though none were from Qatar (Kathryn M. Yount & Smith, 2012). The highest observed rates of PPD in the region are relatively on par with other non-Western countries (Halbreich & Karkun, 2006) and are well above the observed rates in Western countries (Gavin et al., 2005). However, the studies examined tended to use non-generalizable samples that were often not comparable to each other (Kathryn M. Yount & Smith, 2012). Additionally, Yount and Smith (2012) argue that women from different cultural settings may not respond to questions from standard psychological questionnaires in the same way - citing their prior work on anxiety in Egypt, where women they sampled had difficulty understanding the meaning of some of the questions used in the standard scales they applied – making it difficult to compare findings across states and regions.

To date, there has been little exploration of the associations between women's empowerment or agency and women's mental health in the Middle East, let alone during pregnancy. However, one study, by Yount et al. (2014), examined whether or not women's

empowerment, "acquisition of enabling resources, and in turn enhanced agency," was associated with women's lower generalized anxiety in Minya, Egypt (p. 185). From their sample of 539 ever-married women, aged 22-65 years, they concluded that women's empowerment was associated with lower generalized anxiety. Across their four multiple regression models, their enabling economic resource variables - pre-marital subsistence and market work, educational attainment, and living with or near one's birth family - were all negatively associated with generalized anxiety at the one percent significance level. However, Yount et al. found contradictory associations between their measures of agency and women's generalized anxiety. Their multiple regression models showed that exclusive decision-making about visits to family was significantly associated with lower generalized anxiety, while making exclusive decisions about personal healthcare and major household purchases were significantly associated with higher generalized anxiety. Making exclusive decisions for purchases for daily household needs was not significantly associated with generalized anxiety. Yount et al. explained that, "in this collectivist, patriarchal context, few women made exclusive decisions regarding their own healthcare (15%), major household purchases (4%), and visits to family or relatives (10%). Still, almost half (48%) made exclusive decisions about purchases for daily household needs," (p. 189). They hypothesize that these different forms of agency may have had different effects on women's anxiety, because women that had the ability to visit family when they alone chose may have had greater access to social support, while women that made exclusive decisions over their own healthcare and major household purchases may have lacked social and possibly financial support. This unexplained contradictory evidence between measures of agency and women's generalized anxiety in an Arab Middle Eastern setting demonstrates a need to further explore this relationship, although it is important to note that this Egyptian population is quite different from

the Qatari population, as more than half of this sample came from the lowest national wealth quartile, only 10 percent of women's father's had ever attended school, just over a third had ever attended school, 29 percent were married before the age of 16, and over two-thirds had performed subsistence or market labor in the year before their marriage (K. M. Yount et al., 2014).

Antenatal depression

The existing knowledge about antenatal depression largely comes from high-income Western countries. According to a recent systematic review of the English peer reviewed literature on risk factors for depressive symptoms during pregnancy in Western high-income countries, up to 12.7 percent of pregnant women experience a major depressive disorder (Lancaster et al., 2010). This systematic review analyzed 57 "high quality" studies from within the United States, Canada, Europe, Australia, and/or New Zealand and examined 20 different possible risk factors for depression, which could be routinely screened for during pregnancy. The review concluded that maternal anxiety, life stress, history of depression, lack of social support, unintended pregnancy, Medicaid insurance, domestic violence, lower income, lower education, smoking, single status, and poor relationship quality were all associated with depressive symptoms during pregnancy in bivariate analyses and that only life stress, lack of social support, and domestic violence continued to be significantly associated with depressive symptoms during pregnancy in multivariate analyses. However, the review noted that only about a third of its studies conducted multivariate analyses (Lancaster et al., 2010). This may explain the low number of risk factors, which remained significant in multivariate analyses and makes it more difficult to draw conclusions about confounding risk factors to antenatal depression. Another

limiting factor of the review was that the majority of the studies were cross-sectional (Lancaster et al., 2010) and therefore causality cannot be determined.

The review concluded that their findings tend to be consistent with the findings from previous meta-analyses of risk factors for PPD, with the exception of socio-economic status (SES). Lancaster et al. (2010) found that generally pregnant women's anxiety had a medium to high correlation with depressive symptoms in bivariate analyses and was one of the strongest associations with depressive symptoms. The pregnant women's life stress was generally measured by life events (n = 15 studies), such as a divorce, and daily hassles (n = 5 studies), such as daily annoyances or time pressures. Though significant associations were found between life events and antenatal depressive symptoms, none were found between daily hassles and antenatal depression. The review found that a lack of intimate partner support (n = 9 studies) also had one of the strongest associations with antenatal depressive symptoms in both the bivariate and multivariable models. Though experience of domestic violence (n = 7 studies) remained significant in multivariable models, on average it only had a small to medium association with antenatal depressive symptoms. Lower educational attainment only had a low association with depressive symptoms and the review found no significant association between SES and depressive systems in either the bivariate or multivariate analyses. Across the studies analyzed, the authors found null or inconsistent conclusions between parity, race/ethnicity, and maternal age and antenatal depressive symptoms (Lancaster et al., 2010).

Antenatal mental health in the Middle East

To date, none of the published studies, in English, on human or social risk factors for mental health issues during pregnancy in the Arab Middle East have been conducted in the Gulf. In the last decade a few studies, two in Jordan, one in Egypt and one in Morocco, have examined

antenatal depression and its human and economic risk factors (Abdelhai & Mosleh, 2015; Abuidhail & Abujilban, 2014; Abujilban et al., 2014; Alami et al., 2006; Mohammad et al., 2011), and two of the studies (Egypt and Morocco) explicitly examine anxiety during pregnancy. One study in Jordan and one in Egypt were cross-sectional in design and the other Jordanian and Moroccan studies were longitudinal; however, the two longitudinal studies examined the period during pregnancy through six or nine months post birth as opposed to prior to birth through pregnancy. The majority of studies used convenience sampling with the exception of the study in Egypt, which used systematic random sampling and all recruited from health care clinics. Due to these sampling methods, none of the findings from these studies are representative of their national populations, let alone the region, or are comparable to each other. In addition, the studies used a range of different scales to measure depression and anxiety and only two of the four studies conducted multivariate analyses, making it difficult to determine which risk factors have a stronger association with antenatal depression and anxiety. In addition to the issues stemming from the methodological design of these studies, the populations in Jordan, Morocco, and Egypt are relatively dissimilar to the population in Qatar and other Gulf states, especially because of the high per capita income in Qatar.

In Egypt, Abdelhai and Mosleh (2015) aimed to examine the frequency of and association of domestic violence with experiences of anxiety and depression during pregnancy. Within their sample of 376 pregnant women, they found that 63 percent of women experienced both anxiety and depressive symptoms, 11.4 percent only experienced anxiety, and 10.4 percent only experienced depressive symptoms. The study found that 30.6 percent of the women were exposed to domestic violence, including being insulted by their husbands, screamed or cursed at frequently by their husbands, threatened with harm, or physically abused or hurt often to most of

the time. However, only 9.8 percent of the women reported a problematic relationship with their husbands, but of these women, 81 percent experienced both anxiety and depressive symptoms. The study's multivariate analysis showed that concurrent symptoms of anxiety and depression during pregnancy were significantly associated with experiences of domestic violence (OR = 3.27, 95% CI: 1.28-8.34). However, age and employment status were not found to be associated with symptoms of anxiety or depression, but perceived financial stress was significantly associated with having both symptoms of anxiety and stress in the bivariate analysis though not in the multivariate analysis. The study population is likely quite different from the Qatari population, considering that a quarter of the participants were illiterate, as were about a quarter of their husbands, 91 percent were housewives, and 74.2 percent of their husbands worked as manual laborers (skilled and unskilled). In addition, the Hospital Anxiety and Depression Scale (HADS) questionnaire was not validated in Egypt before being implemented and scale cut off scores were determined based on the original scale rather than the Egyptian cultural context (Abdelhai & Mosleh, 2015). The lack of local scale validation makes it difficult to determine the validity of the prevalence of anxiety and depressive symptoms within this study population along with the factors found to be associated with it.

Alami et al. (2006) found that most of the women, from their sample of 100 pregnant women in Morocco, who developed PPD had previously exhibited symptoms of depression during pregnancy. Of all participants, 19.2 percent experienced symptoms of depression during pregnancy, using the Mini International Neuropsychiatric Interview (MINI). They found that obstetrical history, undesired pregnancy, and "reported poor marital relationship with a lack of partner's support and verbal violence" were significantly associated with antenatal depression in their study population (pp. 344-345); however, they did not conduct a multivariable regression,

therefore confounders cannot be accounted for. In addition, 60 percent of the population was illiterate, 88 percent were housewives, and 74 percent had financial difficulties (Alami et al., 2006) making the population fairly dissimilar to the Qatari population.

Mohammad et al. (2011) also found a 19 percent prevalence of antenatal depression within its Jordanian study population of 353 pregnant women using the Edinburgh Postnatal Depression Scale (EPDS) with a ≥ 13-point scale cut off. Their multiple regression analysis found that stress, anxiety, financial problems, perceived lack of parenting knowledge, difficult relationship with the mother-in-law, unplanned pregnancy, and low self-efficacy were associated with probable antenatal depression but not social support or marital relationship. Their regression model demonstrated that the seven associated variables accounted for 83 percent of variance in probable antenatal depression within their study population. To help insure internal validity they also tested their study instruments for face validity with a convenient sample of childbearing Jordanian women and assessed their instruments using Cronbach's alpha (Mohammad et al., 2011). Mohammad et al. (2011) theorizes that "similarities in the rate of antenatal and postnatal depression in Arabic-speaking countries may be related, in part, to cultural norms that manifest in the medical model of maternity care, the status of women, and their relationship with their mother-in-law" (p. 242). However, Abdelhai and Mosleh (2015) and Abuidhail and Abujilban's more recent studies in Egypt and Jordan point to a considerably greater prevalence of antenatal depression in Egypt and Jordan compared to the previous studies in Jordan and Morocco, but again these differences my be explained by different study locations, instruments, and the quality of the studies' methodologies.

A more recent study in Jordan, also using a convenience sample of pregnant women, found that 57 percent of its study population had symptoms of depression, also using the EPDS

with a ≥ 13-point scale cut off. In their study population of 218 women, they found that satisfaction with life, perceived stress, family and non-family stress, and educational attainment significantly predicted symptoms of antenatal depression in a multiple regression model, but not number of previous pregnancies. However, only 37 percent (34% adjusted) of the variability in antenatal depression was accounted for by these five variables. They also found that family and non-family social support was not a significantly associated with symptoms of antenatal depression within their multiple regression model (Abujilban et al., 2014).

Postnatal mental health in Qatar and the Gulf

Though no research has yet been published on human or social risk factors for anxiety, stress, or depression during pregnancy in Qatar or other Gulf states, recently researchers have conducted two studies in Qatar and one in the UAE on the prevalence of and human or social risk factors for PPD (Bener, Burgut, et al., 2012; Bener, Gerber, et al., 2012; Burgut et al., 2013; Hamdan & Tamim, 2011). The two studies conducted in Qatar both used cross-sectional designs and reported to validate their study instruments, but one used systematic sampling at 10 primary health care centers, randomly selected from all 22 primary health care centers in Qatar (n = 1659) (Bener, Gerber, et al., 2012), while the other study's sampling methods (from 12 primary healthcare centers) are unclear (n = 1379) (Bener, Burgut, et al., 2012; Burgut et al., 2013). Additionally Bener, Gerber, et al. (2012) used the Depression Anxiety Stress Scales (DASS) to determine PPD, anxiety, and stress within their study population, while Bener, Burgut, et al. (2012) used the EDPS to determine PPD in their study population, which makes it difficult to compare the findings from the two respective studies, because they both used different measurement scales and likely sampling methods. However, both studies did find similar levels of PPD within their study populations that were relatively on par with other Middle Eastern

countries and higher than high-income Western countries. Burgut et al. (2013) found that 17.6 percent of the women in their study (Qatari women: 17.4%; other Arab women: 17.9%) had PPD, and Bener, Gerber, et al. (2012) found that amongst the women in their study population 18.6 percent suffered from depression, 13.1 percent from anxiety, and 8.7 percent from stress, but the two studies did not find consistent associations or patterns between all possible risk factors for PPD. Bener, Burgut, et al. (2012) found that mothers above age 35, those with an education below the intermediate level, and those with a low monthly income (QR 5000-9999) were significantly more likely to have PPD, while Bener, Gerber, et al. (2012) found no significant association between maternal age, education level, and household income with depression. Conflicting with Bener, Burgut et al.'s (2012) study, although not significant, the younger mothers, and those with an education above secondary level were more depressed and anxious compared to older mothers and those with less education in Bener, Gerber et al.'s (2012) study. In both studies, being a housewife was significantly associated with PPD ($p = .05$), but in Bener, Gerber et al.'s (2012) study, working women were more anxious ($p = .565$) and stressed ($p = .075$) compared to housewives. Both studies conducted multiple regressions to determine the greatest predictors of depression and rule out confounders. Bener, Gerber et al. (2012) found that unplanned pregnancy (OR = 1.9, 95% CI: 1.5–2.6), lack of family support (OR = 1.6, 95% CI: 1.2–2.3), and being a housewife (OR = 1.6 , 95% CI: 1.2–2.1) were the most significant correlates of PPD and that lack of family support (OR = 1.9, 95% CI: 1.3–2.8) and dissatisfaction in married life (OR = 1.6, 95% CI: 1.1–2.5) were the significant correlates of postpartum anxiety. They also found that being an older mother, age 40-45 years (OR = 2.0, 95% CI: 1.2-3.5) and marital dissatisfaction (OR = 1.9, 95% CI: 1.2-3.1) were the significant correlates of postpartum stress. Bener, Burgut, et al. (2012) found that within their study

population difficulty managing income (OR = 2.37, 95% CI: 1.56-3.58), prematurity (OR = 1.64, 95% CI: 1.06-2.54), poor family support (OR = 1.52, 95% CI: 1.0-2.14), dissatisfaction in married life (OR = 1.26, 95% CI: 1.0-1.47), and poor marital relationship (OR = 1.13, 95% CI: 1.0-1.29) were all significant predictors of PPD.

The study conducted in the UAE used a prospective longitudinal design, with data collection beginning in the second trimester, (though it only examined the post-partum period) and a convenient sample of only 137 pregnant women from the Maternal and Child Health Center in the Emirate of Sharjah. Within this non-representative sample, the researchers found that 10 percent of women experienced PPD and determined that depression during pregnancy was significantly associated with PPD ($p = .05$), as were the women's number of children, religion, and use of baby formula; however, they did not conduct a multiple regression (Hamdan & Tamim, 2011) and therefore it is difficult to know to what extent these factors may predict PPD. They first used the EPDS to screen for depression and then used the MINI to diagnose PPD. Their use of a diagnostic tool may at least partially account for the study population's lower prevalence of PPD, compared to a previous study in the UAE, which found an 18 percent prevalence with only the use of a screening tool (Hamdan & Tamim, 2011). However, these differences could also be explained by the non-representative sampling methods. Unlike Burgut et al. (2013), Hamdan and Tamin used a 10 point scale cut off on the EPDS instead of a 12 point cut off, citing the recommendation of a previous Arabic EPDS validation study (Hamdan & Tamim, 2011).

Conclusion

The literature demonstrates that little is known about women's mental health during pregnancy in Qatar or the Middle East region in general. In particular, the lack of qualitative research, which could bring a more nuanced understanding to observed risk factors for antenatal anxiety and depression, and lack of high quality quantitative studies on women's mental health during pregnancy means that stress, anxiety, and depression during pregnancy have yet to be fully understood within the Gulf or Middle Eastern context. Though there have been further studies on PPD in the Middle East and Qatar, compared to antenatal depression, these studies also tend to lack generalizability and be of lower quality. Though there has been a great deal of research on women's social status and empowerment in the Middle East there is still limited peer-reviewed literature on women's empowerment in Qatar or writing on how women's agency, specifically decision-making affects their mental health. Only one study in the Middle East has specifically explored the relationship between women's decision-making autonomy and their mental health (specifically generalized anxiety), and this study found contradictory associations between women's exclusive decision making and their generalized anxiety, demonstrating the need to further explore the influence and nuances of decision-making autonomy on women's mental health.

III. Methods

Study Setting

This study was conducted in Doha, Qatar, at the Women's Hospital of Hamad Medical Corporation (HMC). HMC is the largest state-owned health care provider in Qatar and the Women's Hospital is the only maternity and neonatal tertiary care center in Qatar. Up until 2007 the majority of all births in Qatar took place at the Women's Hospital, and as of 2013 the percent

of births occurring there was still greater than at any other individual private hospital (Greer, 2013). The Maternity unit performs over 15,000 births per year (Rahman et al., 2010). According to HMC staff, about 230 Arab women attend prenatal visits a day at the Women's Hospital. The U.S. Joint International Commission has also accredited the Women's Hospital of HMC for its standard and quality of health care (Rahman et al., 2010).

Study design

This study used a mixed methods design to characterize women's own perceptions of empowerment (resources and agency) in pregnancy and its relationship with prenatal distress. Qualitative in-depth interviews (IDI) and cognitive interviews were used to characterize and then pretest constructs of women's empowerment and distress during pregnancy in the Qatari context. The outcomes of this study inform the development of variables for a structured questionnaire to measure the relationship between women's experiences of empowerment and mental health during pregnancy. The IDIs were used to gain the emic perspective of pregnant Qatari women on their ability to access resources and exert agency over their lives in addition to their understandings of stress, anxiety, and depression during pregnancy. These data will provide context and meaning to the findings of the quantitative survey. The cognitive interviews were used to test a normative understanding of the survey questions developed from the IDI data, and the structured questionnaire will be used in a clinic based cross sectional survey of pregnant Arab women living in Qatar to be implemented at HMC's Women's Hospital in 2017. Findings from the survey will allow the results to be generalized to all Arab pregnant women living in Qatar. For the purposes of this paper, only the data collected from the IDIs will be discussed and analyzed.

Participant recruitment

Study participants were purposively recruited for IDIs from women attending prenatal appointments at HMC's Women's Hospital from May 2016 through August 2016. The HMC's Women's Hospital was selected, because it is the only governmental tertiary provider for maternal health services and it delivers more live births than any other single private hospital in Qatar (Greer, 2013). Therefore, recruitment from the Women's Hospital would capture a diverse sample of pregnant Qatari women and the venue would not exclude any particular types of women. Eligible women were invited to participate in the study by their doctor during their prenatal appointment, or by a trained qualitative researcher in the waiting room of the Outpatient Clinic or the Feto-Maternal Unit of the Women's Hospital of HMC. Qualitative researchers interviewed women in a private room while they waited for their prenatal appointment or immediately following their appointment. This recruitment strategy allowed the research team to approach women independently of their husband or a male relative, to ensure their privacy.

An iterative process and purposive recruitment strategy were used to ensure participants recruited captured diversity in their experiences across the interview topics. Recruitment ceased when saturation was reached across all topics discussed in the interview guide, whereby no new information was forthcoming during interviews. This occurred at about the same time that the proposed number of interviews was completed. A total of 26 pregnant Qatari women were interviewed – 20 IDIs were completed and audio-recorded, two IDIs were completed but not audio recorded, and four IDIs were audio-recorded but not completed.

Women were eligible to participate in the study if they were a) Qatari nationality; b) pregnant in their second or third trimester and; c) waiting for a prenatal appointment at the Women's Hospital of HMC d) and agreed to participate in the study. Women were excluded from the study if they were not able to provide informed consent or if they were under 18 years

of age. All women provided written informed consent to be privately interviewed before the interview began, and the participants did not receive any incentive for their participation. The HMC, Qatar University, and Emory University's Institutional Review Boards approved the study.

Study Instruments and Data Collection

IDIs were used to gain the individual perspective of pregnant Qatari women, and to create a private space for them to go into depth and explain the context around their understanding and experiences of empowerment, disempowerment, and mental health during pregnancy – a potentially sensitive topic. A team comprising of researchers from the Social and Economic Survey Research Institute (SESRI) at Qatar University and the Rollins School of Public Health at Emory University, under the guidance of a qualitative research expert, designed the IDI guide. The IDI guide was pilot tested with 10 ever pregnant Arab women and further refined and pilot tested a second time with two pregnant Qatari women at the Women's Hospital of HMC to assess the guide in the actual clinic environment.

The interview guide included the following topics: Women's Definitions and Experiences of Empowerment during Pregnancy; Women's Definitions and Experiences of Disempowerment; Freedom of Movement during Pregnancy; Economic Decision-making; and Women's Experiences of "Stress" in Pregnancy (see Interview Guide in Appendix A). The interview guide began by asking women about their definition and experiences of empowerment during pregnancy, asking questions such as, "When you think of a powerful woman, what words or phrases come to your mind?" and "During this pregnancy, tell me about any time you felt powerful." Next it explored their definition and experiences of disempowerment during pregnancy, before going on to discuss freedom of movement during pregnancy. It then discussed

economic decision-making – asking, "Whose permission do you usually need to spend your own money?" and about women's ability to sell their own possessions. It concluded by discussing women's experiences of "stress" in pregnancy, including questions on the definition of stress, the common causes of stress during pregnancy, and women's experiences of stress during pregnancy. Throughout the IDIs, the interviewers also used inductive probes to gain greater depth and understanding on the issues raised spontaneously by participants.

SESRI research assistants with expertise in qualitative fieldwork conducted all of the interviews in Arabic in small private rooms near the waiting rooms for pre-natal appointments with the exception of one interview that was conducted in the empty cafeteria during Ramadan. These locations ensured the participants' privacy and their ability to hear if their name was called for their appointment. A second researcher took notes during each IDI to record participants' non-verbal communication and helped to listen if the participant was called for her appointment. Prior to data collection, the interviewers received additional training on qualitative methods, including training on research ethics, reflexivity, discussion of the IDI guides, and practice interview sessions to ensure effective probing and active listening skills were used. Female research assistants conducted the interviews to enhance the participants' comfort and willingness to share their opinions and experiences, because it is not culturally acceptable for Qatari women to interact with men they do not know behind closed doors. All IDIs were audio-recorded unless the participant did not give permission to record, in which case the second researcher acted as note taker to capture participants' responses. Additionally, on a weekly basis during the data collection phase, the content of the previous week's interviews were discussed to review topics discussed and data quality and to determine whether or not saturation had been reached across the different interview topics and to guide further exploration of issues raised by participants.

This allowed interviewers to gain greater depth of information in the interview data by exploring new topics and nuances previously raised by participants in subsequent interviews.

Data preparation and analysis

All audio-recorded interviews were transcribed verbatim into Arabic, de-identified, and then translated into English by researchers at SESRI with the exception of one eight minute incomplete interview, which was excluded from analysis. To ensure the quality of the translation and transcription, a bilingual member of the research team then compared the audio-recorded interviews to the translated transcripts. The notes from interviews that were not audio-recorded were also translated from Arabic into English. The textual data from all 25 interviews included in the analysis were then imported into the qualitative data analysis software program MAXQDA, (VERBI Software, 1989-2016) in order to help facilitate the manipulation of the data during analysis.

The principles of grounded theory were used to guide both the data collection and analysis processes. Grounded theory was chosen because it focuses on the iterative process and conceptualizing data from participants' actual experiences and perceptions to explain how or why something is occurring. We did not want to just understand the themes within the data around decision-making autonomy and mental health during pregnancy. Instead, we wanted to understand how different levels of decision-making autonomy influenced or related to women's experiences of stress, anxiety and/or depression during pregnancy. The grounded theory approach allowed us to explore the relationship between autonomy and women's mental health during pregnancy.

Approximately one third of the completed and verbatim transcripts were read for code development. This process consisted of reading the textual data and writing brief memos about

the themes emerging from the data related to the research question. These memos were then used to develop inductive codes about themes that emerged directly from the participant's views and experiences, such as pregnancy desire, fear, divorce, and support system, and deductive codes, which were directly related to the research question and tied to the interview guide, such as stress during pregnancy, financial independence, autonomy, and permission. After the draft codebook was completed a single completed verbatim transcript was randomly selected from the remaining transcripts, which had not been read for code development, and the author and one other member of the U.S. based research team each separately coded the interviewer. An inter coder agreement, which measures the percentage of text that is coded with the same codes, was then conducted between the two members of the research team to identify consistency of coding between coders and identify any unclear code definitions. The two members discussed the results of the inter coder agreement, and subsequently the code definitions were revised to reflect the discussed inconsistencies and a few new codes were added to the codebook. All 25 transcripts were then systematically coded using the updated codebook to facilitate the sorting and comparing of data, both within and across transcripts, during analysis.

Data analysis involved first examining codes related to gender norms in Qatari society to examine themes across the data and develop context for exploring other codes. Codes relating to decision-making context were next explored to understand the contexts in which women could and could not make autonomous decisions. Then the arenas of decision-making discussed across the transcripts were selected and used to develop a score of autonomy for each participant, using reported indicators of autonomy from participants' own experiences. These arenas of decision-making and scores were then used to develop a typology of women' autonomy in decision-making resulting in four categories and each woman was categorized into one of these

categories. Four decision-making arenas were developed from the textual data including, making decision on personal finances, driving, leaving the home independently, and needing permission to leave the home. Within each decision-making arena a low, medium, and high autonomy score emerged. Women were then scored for each arena and placed on a continuum of autonomy based on their total score. A low score received minus one, a medium score no points, and a high score a plus one. Based on the women's position on the continuum of autonomy, the women were categorized into a group of women of the same or similar autonomy. The scores for each indicator are:

Making decision on personal finances:

- Low: Women do not have their own money to spend as they choose
- Medium: Women have their own money but do not have complete autonomy over it
- High: Women have their own money and have autonomy over how they spend it

Driving:

- Low: Women do not drive
- Medium: Women can drive, but only under limited circumstances
- High: Women are allowed to drive

Leaving the home independently:

- Low: Women can generally only leave the home with their husband or another female companion
- Medium: Women can go some places alone or with just their children
- High: Women can generally go out alone

Needing permission to leave the home:

- Low: Women always have to ask their husband for permission leave the home
- Medium: Women sometimes ask for permission to leave the home
- High: Women inform or do not inform their husband before leaving the home

Four participants (3, 7, 14, & 19) were excluded from the typology because their interviews were incomplete and/or they did not provide enough information about their decision-making autonomy within both of these contexts.

Next, the other decision-making and inductive codes were explored to gain a more contextualized understanding of the women's experiences of autonomy and support systems and verify their positions on the continuum of autonomy. Finally, the codes relating to emotional and mental health were explored and a matrix was developed to examine the intersection of decision-making and emotions and mental health. This was used to further explore the relationship between autonomy and mental health during pregnancy. Throughout this process, constant comparisons of codes were used both within and across the groups of women on the continuum of autonomy in order to facilitate the conceptualization of the data and to look for different patterns in the data. A conceptual diagram was then constructed to depict the observed relationship between women's decision-making autonomy and their stress during pregnancy. Throughout this entire process, we kept returning to the data and re-reading the data to verify that it supported the constructed typology and conceptual model.

Limitations

There are some limitations to the data used in this study. Due to the recruitment strategy, interviews were sometimes interrupted and left incomplete when women needed to attend their prenatal appointment. To account for these limitations, if a participant was called for an appointment the research assistants waited for her to return from her appointment to resume the

interview, sometimes for up to an hour, and when participants were unable to complete their interviews the research assistants recruited additional women to make up for incomplete interviews. Additionally, during data collection some women chose to leave the interview room door open during the interview to ensure that they could hear if their name was called for their appointment. This may have hindered women's willingness to fully discuss their opinions and experiences, and the noise outside may have slightly distracted them. However, it was the women's own decision to leave the door open and this made them feel more comfortable so that they would not miss their appointment.

IV. Results

Characteristics of participants

The demographic characteristics of study participants are shown in Table 1. The women ranged in age from 24 to 44 years. Only one participant was aged under 25 and the majority of participants were between 26 and 35 years. There was greater diversity in the women's age at marriage, age at first pregnancy, and parity compared to the women's ages. Most of the women were married between the ages of 20 and 25 but equal numbers of women where married before and after this age range, with the earliest marriage taking place at age 14 and the latest at age 34. Few women had their first pregnancy before the age of 20 with the earliest occurring at age 15. Most of the women's first pregnancies occurred after age 25. The pregnant women's parity ranged from zero to ten with an average of about 3 children per woman. Most of the women were employed, and the majority of women had at least a secondary education or higher, with roughly equal numbers of women having completed secondary school, some university, or earned a university degree. All but one woman (who was going through her second divorce),

were married at the time of their interview.

Table 1. Demographic Characteristics of Pregnant Qatari Women[*]

Characteristic	*Number of Women*
Age[†]	
20-25	1
26-35	13
36-45	6
Age at marriage[‡]	
14-19	5
20-25	9
26-35	5
Age at first pregnancy[§]	
14-19	3
20-25	7
26-35	9
Parity	
0[**]	2
1-2	9
3-4	7
5 plus	3
Highest education level[††]	
Primary	2
Secondary	6
Some University	4
University Degree	6
Ever worked for wages	
Yes	19
No	2

Part1

Perceptions of Autonomy

Women in this study described how pregnancy, giving birth, and raising children are a large responsibility for women in Qatar, and emphasized that women bear most of the responsibility for raising the children. Despite this it is usually the husband who has the ultimate authority over the children. Women are also responsible for taking care of their husbands and many now have the added responsibility of employment. One woman expressed that she thinks the demands on women in Qatari society are too high, stating that Qatari society thinks that the "perfect/ideal (مثاليه)" a woman is one who both raises her children well and is successfully employed. She explained that employed women can no longer spend enough time with their children, making it difficult for them to meet society's expectations of a perfect woman. Several women expressed that though both the husband and wife have different responsibilities their tasks are not usually

[*] The table only includes the 21 participants who are included in the typology
[†] Age unknown for one participant
[‡] Age at marriage unknown for three participants
[§] Age at first pregnancy unknown for two participants
[**] Pregnant at the time of their interview, but had not previous children
[††] Education level not recorded for two participants

evenly divided, because a wife usually bears greater responsibility but not greater decision-making power in the household. It was reported that nowadays in Qatar it is rare to see a family where the husband goes to work and the wife stays home with the children – instead it is more common for both the husband and wife to work. The husband is often responsible for household expenses, which women explained is his responsibility according to the Quran. Women can choose to contribute to the household financially, but according to Qatari society a wife should not be obliged to help pay for household expenses.

Women expressed differing views on the level of gender equality and autonomy that women have in Qatar compared with men. For example, one woman stated that women can work just like men, that their salaries are equal to that of men, and they can now drive and go places on their own, which she pointed out was not the case in the past. Alternatively, some women emphasized the lack of autonomy and limits that are placed on women in Qatari society. One illustration of that second viewpoint is below.

> *I live in a society of women only! You cannot co-mingle, you cannot go to places where there are men, you cannot you cannot, you cannot! There are limits, my personality will become restricted; I cannot express myself fully; because jobs for women – currently they are opening up a bit but they are still limited; What women can do is quite limited – teaching, working in hospitals in specific departments, but not a lot of fields open for women.* And, she later went on to state: *We are governed by our customs and traditions. A woman is still a woman, unlike a man who has the freedom to act; the freedom to give an opinion; the freedom of expression; freedom to do anything. But women are restricted - their environment restricts them.* (Age 44, 4 children, university degree)

However, she also explained that there are some open and educated environments within Qatar that allow women the freedom to control their own lives. Another woman also stated, "I see that the Qatari woman is oppressed (مظلومة)" (age 40, 4 children, primary education), while yet another expressed that some Qatari women's voices are not heard and Qatari society makes women feel weak. Other women expressed that Qatari women enjoy their rights. One view was that the state of Qatar provides women with their rights and another is that their religion (Islam) teaches their society that women are equal to men. However, the woman who explained that Islam teaches their society that men and women are equal also pointed out that Qatari parents tend to be more strict with their daughters, because as she put it, if a daughter makes a mistake, "it is the end of the world," whereas if a man makes a mistake the society will "will find a hundred excuses to justify what he did" (age 27, 1 child, university degree). It was also expressed that men from Qatari society sometimes control women's agency, such as limiting their ability to leave the home, isolating them, not allowing them to dress the way they want and not allowing them to eat when they want. A woman explained that she does not think that education plays an important role in shaping men's behavior and attitudes towards women, because she knows highly educated men who are highly restrictive of their wives' autonomy. It was also discussed that some men still want their wives to stay home and raise the children rather than work. In order to convince a wife to agree to this, they may give their wives an allowance equal to what she could have earned at job.

Several of the women in the study discussed recent changes in Qatari society that are impacting women's live and generally giving them greater equality and autonomy over their lives. It was explained that around the late 1990s and beginning of the 2000s Qatari customs and traditions towards women began to change and become less restrictive. Since then, women have

become more empowered, and there is now a greater awareness in society around the issue of women's empowerment. Some women spoke about how during previous generations women married at a much younger age, that their husbands tended to be about 10 years older than them, they were not highly educated, and were constrained to the home to primarily take care of their children. One woman explained that during her mother's generation, "women wouldn't do anything without first asking their husband for permission, such as to go to a certain place or to get the children vaccinated," but recently she said women's lives are beginning to revolve less around men and now all women do not just agree with what their husband has said (age 32, 2 children, education not recorded). But as another woman pointed out, there are still some young Qatari men who think, "I am the man in this relationship and I decide about the future of this family" (age 27, 1 child, university degree). Other women discussed how different careers paths are slowly beginning to open up to women and that in the last four to seven years it has become much more common for women to drive.

Finally, the women who spoke about Qatari society's views on a divorced women, all agreed that she is subject to a great deal of gossip and one mentioned that "they will ruin her reputation" (age 31, 2 children, secondary education). However, a couple of women explained that society's views on divorce are beginning to change and become more neutral. One of them stated that in the past Qatari society viewed a divorced woman "the same as a bug" (age 31, 3 children, secondary education). She explained that the divorced woman would have no one to rely on and that, in order to prevent gossip, her parents would usually lock her up so she could not go out. When a divorced woman would try to help herself, it would not lead anywhere because the society was against her. This view that society is beginning to change its harsh attitudes towards divorced women is at least partially supported by the fact that a few of the

participants were remarried after a prior divorce and the currently divorced woman living at her parent's house had complete autonomy over her mobility.

Different types of autonomy: mobility and economic decision-making

Within the context of women's economic decision-making, pregnant Qatari women have a range of experiences and different levels of autonomy, but their level of autonomy is largely dependent on whether or not they are employed outside of the home. Women who are employed were more likely to have independent autonomy over their salaries, and they tend to choose to spend their money on themselves, while their husbands pay for household expenses. However, this is not true of all participants, and some participants with their own money may or may not choose to consult their husbands, relatives, or even friends before making some purchases or selling personal items. The women in this study, who were not employed and did not have their own salaries, did not have their own money or any independent assets other than jewelry and expressed a lack of autonomy within this context.

The women's autonomy over their mobility did not correlate to their economic-decision making autonomy. However, the women who did not work and who completely lacked financial independence also had the least autonomy and greatest restrictions over their personal mobility. Being employed and having a salary was not a predictor of women's autonomy over their personal mobility, although all of the women who were employed had at least some autonomy over their mobility. For several women, there was no consistency between their ability to drive, leave the home without asking for permission or informing their husband, leaving the home unaccompanied by their husband or another woman, or visiting whomever or wherever they chose. Some participants who could drive still had to ask for permission to go out or had little ability to leave the home unaccompanied, while some other participants who did not drive, did

not have to ask permission to go out of the house and or did not need to be accompanied by their husband or another woman when they left their home. Very few women would leave the home without even informing their husband where they were going, but several women were not required to ask permission to leave the home and or their husband did not restrict when and where they could go out to. However, there were several women in the study who were allowed to drive, leave the home unaccompanied, and who did not need to ask for permission to leave the home.

Part 2

Perceptions of common causes of stress during pregnancy

The women widely expressed that Qatari women's emotional state tends to worsen and they tend to experience greater stress during pregnancy; however, it was also noted that this is not the case for all Qatari women and some women explicitly stated that their stress did not increase during pregnancy. Their perspectives on the common causes of stress during pregnancy, whether or not they experienced these symptoms, varied widely. The majority of women stated that pregnancy itself or hormones during pregnancy cause women to be more sensitive, irritable, or stressed during pregnancy. The second most commonly reported causes of stress during pregnancy included weight gain or appearance, marital/family problems, healthcare providers, work, health issues, and anxiety over giving birth. All of these issues came up again when women described their own experiences of stress during pregnancy. Below one woman explains how different marital problems can affect a women's stress differently during pregnancy and how this stress can affect the fetus.

> *For example, if you faced a problem with your husband, you say to yourself: he did not think about me and paid no regard to the way I feel. He did not care how that would affect the baby. Because when you are angry, it is like passing poison to the baby, right? And when you argue and it becomes serious, you start wondering: why did I get pregnant? What will happen next? This is when a serious problem erupts. However, when it is a usual everyday fight, you feel angry and get over it after a while.* (Age 31, 1 child, some university)

Another woman explained how a number of these issues occur and change throughout the pregnancy, and how they affect a pregnant woman.

> *At the beginning it is vomiting and at the end anxiety from the birth, but during the middle it is okay as long as the baby has no problems. However, if the baby has problems throughout the pregnancy there will be psychological stress and the mother will have to take a vacation from work and only tell her close friends.* (Age 32, 1 child, secondary education)

Those that said health care providers cause pregnant women stress explained that often doctors do not give pregnant women enough time or attention – that they do not fully explain different health issues and do not answer all of their questions – or the women are constantly seeing different doctors who are not familiar with their health histories or who provide them with inconsistent information. Rather than putting women at ease, doctors can easily prompt greater anxiety and stress in pregnant women. Older age, a lack of autonomy to express one's needs or desires, anxiety over raising a new baby, responsibility of the pregnancy itself, and being in school were also mentioned as common causes of stress for Qatari women during pregnancy; however, only a few women mentioned these causes. Several women also spoke about how

women in Qatari society tend to be happier when they are pregnant with a boy compared to a girl, and they expressed that a pregnancy with a girl could cause upset, tiredness, or stress for the woman; however, one of these women said that this sentiment is just beginning to change now. A few women also mentioned that a woman might feel weaker or worse emotionally if she does not have enough support or comfort from her husband during the pregnancy.

Part 3

Typology of Qatari women's autonomy and experiences of stress during pregnancy

Figure 1. Typology of Qatari women's autonomy and experiences of stress during pregnancy

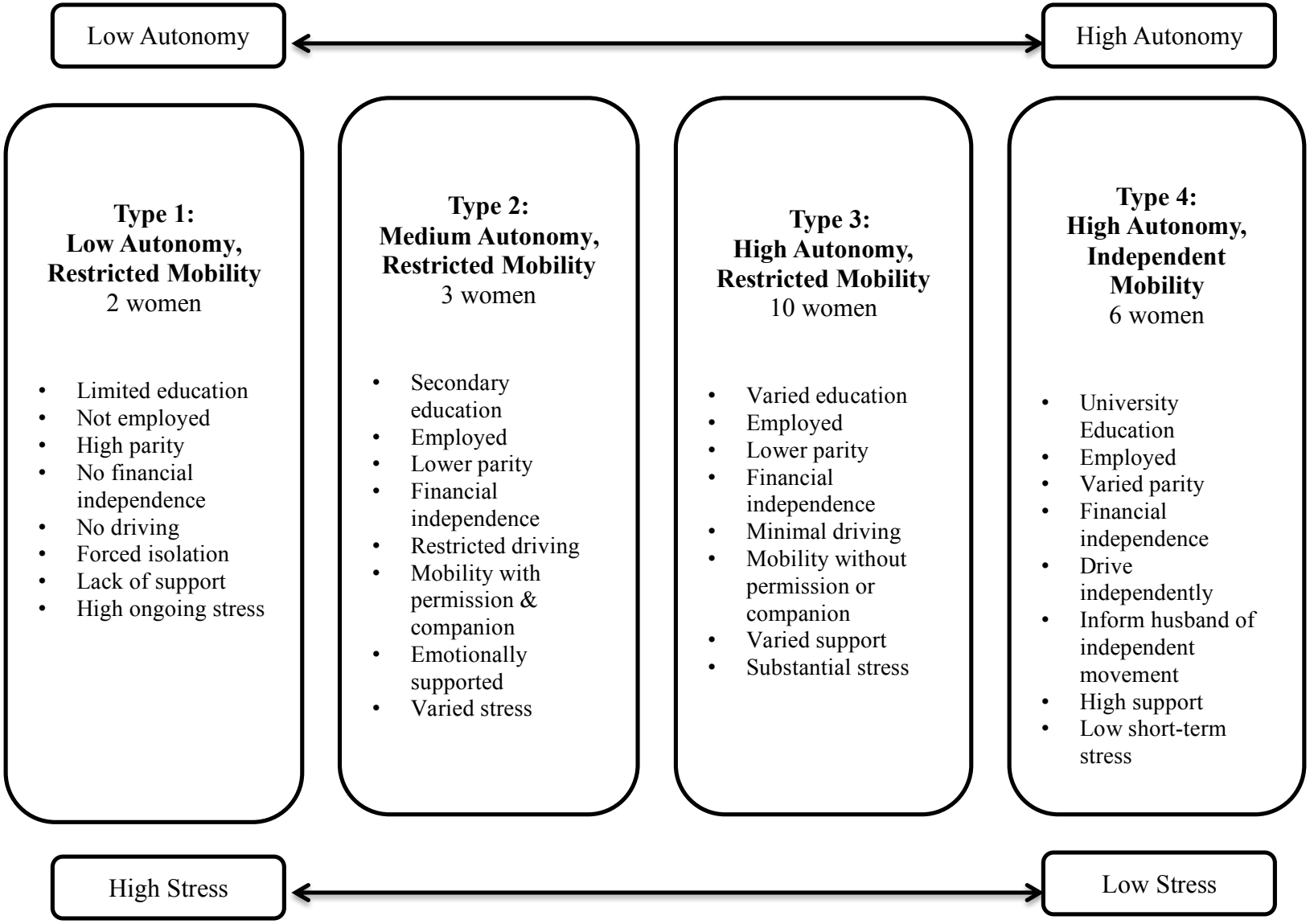

Figure 1 and the following section explore the relationship between Qatari women's decision-making autonomy and their stress, and other mental health issues, during pregnancy. Study data on women's decision-making autonomy focused only on contexts of economic decision-making and mobility, therefore only these two decision-making contexts were considered when categorizing the women by their decision-making autonomy. Within the contexts of economic decision-making and mobility, the women fall along a continuum of decision-making autonomy. There are a few women with quite low autonomy and several who have a high level of autonomy, but the majority of women fall somewhere in the middle. As shown in Figure 1, there appears to be an inverse relationship between women's autonomy and their experiences of stress. Women with the lowest autonomy also described having high levels of prolonged stress during their pregnancies, while those with high levels of autonomy generally describe having lower levels of stress for shorter periods of time during their pregnancies. The women who had variable autonomy also described having a more diverse range of experiences of stress, compared to women at either end of the spectrum. Though women's decision-making autonomy, within the contexts of economic decision-making and mobility, is fairly nuanced the 21 women, who provided data across all four arenas of decision-making within these two contexts, were categorized into four distinct categories of decision-making autonomy. All women in each category do not necessarily have autonomy over the same types of decisions; however, they do have autonomy over about the same number of decision-making arenas. Below is a description of each category of women's decision-making autonomy followed by the associated experiences of stress during pregnancy within each category.

Type 1: Low Autonomy, Restricted Mobility

Two participants had little to no autonomy over their personal mobility or economic decisions. Across all four decision-making arenas they had low autonomy. Women in this category were not employed, had limited education (a primary education & a secondary education), and have high parity (4+ children) – despite being of different ages (33 and 44 years).

Women in this category had few independent assets, as they were not employed, and were generally not allowed to make any economic decisions. For example, one woman explicitly stated that she had to ask permission to sell or exchange her jewelry and make purchases for herself. Her husband would tell her if he wanted her to have something new and he would buy it for her. Additionally, he was upset with her in the past when she sold all of her jewelry, when he was away from Qatar, in order to have money of her own. These women also explained that when their husband sold something, they did not consult them about their decision, and they expressed frustration with this lack of autonomy over their financial situations. One woman stating how her lack of financial independence meant that she could not afford to be divorced, because no one would take responsibility for her and her children.

These women cannot drive, and they always need permission from their husbands to leave their homes even for routine outings, such as visiting parents or going to the park. They generally can only leave their homes with their husbands, with the exception of visiting their families or in specific cases such as going to the park alone with their children or when a husband is away from Qatar on a trip. The restrictions on these women's mobility are severe. For example, outings and visitors used to be entirely banned for one woman and if the other woman chooses to leave her home without her husband's permission he physically assaults her. These women's husbands also restrict where they are allowed to go even when they are allowed out.

For instance, one woman's husband questions outings to malls and restaurants and does not allow her to attend weddings when he himself does not attend.

Women in this category expressed a strong sense of isolation, lack of control over their lives, poor communication with their spouses, and a lack of support from their husbands both emotionally and in raising their children. For example, one woman stated, "any decision I take … I get exposed to violence more, so I surrender on purpose" (age 40, 4 children, primary education). These women also had little access to emotional support outside of their homes, with limited mobility also compounding their ability to seek support.

Experiences of stress during pregnancy

Women in this category had low decision-making autonomy and also expressed having a high level of ongoing stress and poor mental health throughout their pregnancies. These women described not eating well during pregnancy as a result of their psychological states. They described having stress from personal health issues and the responsibility for taking care of their children and homes. One of them also described having stress due to problems with and a lack of support from her husband and the healthcare system and expressed that she was depressed and felt "devastated," while the other woman discussed having stress from too many pregnancies and that she was generally more emotionally sensitive during pregnancy.

These women also described how their lack of freedom impacted their mental health during pregnancy. The woman who expressed having stress due to too many pregnancies already had seven children and did not have control over her own fertility. In discussing her current pregnancy she stated, "I got pregnant unwillingly, it happened by coincidence." The extract below, which describes how she would assist her daughter when she grows up and gets pregnant,

further illustrates her connection between her inability to control her fertility and mental health during pregnancy.

> *I mean to take decisions about her life. I know this is something that in our society is linked to the husband. But, the way you get pregnant and how you plan your pregnancy. In Qatar, my brothers for example, their wives have planned their pregnancies well. But my husband rejects the whole idea. He does not want me to plan, he says I want you to bring me children; But, I hope she maintains her health, her psychological well-being, and that she has children, but in a well planned manner.* (Age 33, 7 children, secondary education)

This same woman also explained that after visiting a specialist in internal medicine during her last pregnancy, the doctor informed her that her problem was psychological and that she was exhausting herself, but she did not mention receiving any further support from this doctor on how to improve her psychological state. Instead, at the end of her interview she added that "pregnant women, they need someone who knows how to deal with them and understand them. They go through an extremely difficult phase." The other woman explained that the primary reason for her stress, depression, and anxiety in her life was her lack of freedom stating, "I don't have financial independence or physical independence or mental independence." She explained that this was not unique to her pregnancy, that this was ongoing in her life outside of and during pregnancy. Instead, she felt she had increased stress during pregnancy due to exhaustion from the pregnancy itself and a lack of support. She explained, "Sometimes I feel severe depression for so long from the amount of weight on me and stress on me – like there is no one to help with the kids or carry their responsibility or care about them." These women agreed that pregnancy heightens their previous stress level and/or worsens their emotional states.

Type 2: Medium Autonomy, Restricted Mobility

Three women had medium to high autonomy over their personal economic decision-making, and low autonomy across two mobility arenas and medium autonomy across a third mobility arena. Women in this category were employed, had a somewhat low level of education (a secondary education), had medium parity (2 or 3 children), and ranged in age from 24 to 38.

Women in this category were all employed, therefore they had their own salaries, and appeared to have complete control these monies. They did not ask for permission to spend their own money with the exception of one woman who reported that she did not have her own money, because her and her husband pooled their salaries together. She explained that if her and her husband have a lot of expenses from their family farm during one month then she needs to ask him for permission to spend money on herself, but if their farm's expenses are low she does not ask for permission to spend money from her salary or buy something for herself. Alternatively, the women in this category consistently consult their husbands or parents for advice before buying or selling a large asset that would benefit them.

These women had less autonomy over their mobility compared to their personal economic decision-making, but more than the Type 1 women. The majority of these women can drive, but only under the limited circumstances permitted by their husband, such as going to work or to a parent's home. Additionally, the husband of one of the women who can drive forced her to obtain her driver's license against her wishes, and since she became pregnant he no longer permits her to drive. The women in this category must ask their husband for permission to leave their homes and none are permitted to go out independently; however, a woman who cannot drive said "its no big deal" to go out when accompanied by female friends and or just her children (age 24, 3 children, secondary education). Alternatively, the women who can drive must

almost exclusively leave their homes with their husbands, and one of the women explicitly reported that she is not allowed to go out alone with female friends or her sisters. Additionally, the women in this category tend to have restrictions on when and where they are allowed to go out to, such as not being allowed to go out during the weekend or go to certain locations without their husband present.

Outside of the contexts of personal economic-decision making and mobility these women described having somewhat greater autonomy over their lives and having considerably more support compared to the Type 1 women. These women described receiving emotional support during their pregnancies. The majority of them explicitly discussed how their husband supported and cared for them, one of whom does so even more during pregnancy. For example, one woman stated, "I find my strength in two people, my husband and my father" (age 38, 3 children, secondary education). And another woman explained, "I feel I am really married. I feel I did not get married only to have children! No, I have a husband who cares about me – he takes me out, he drives me around, we travel together. What is even better is I live alone with him" (age 31, 2 children, secondary education). Other women reported that they receive emotional support from their mothers or sisters, but not necessarily from their husband. None of the women reported feeling isolated although one woman preferred not to go out much and the other women's mobility decreased during their pregnancies. The women in this category did not discuss their husbands or other male relatives as being particularly controlling over their lives; however, a few women provided other examples of how controlling their husbands are. For example, one woman expressed how she is unable to make many household decisions and another discussed how she must choose the right time to ask her husband for something, such as waiting for him to rest before asking him for permission to go to the doctor.

Experiences of stress during pregnancy

Overall, the women with medium to high autonomy over their personal economic decision-making and relatively low autonomy over their mobility expressed a variety of experiences of stress, anxiety, and depression during their pregnancies with no clear pattern. The women in this category all experienced some stress and a couple of them expressed feeling depressed and anxious at some points during their pregnancies, but only one of them expressed feeling a lot of pressure throughout her entire pregnancy. The one woman in this category who described experiencing high continuous stress is the only woman who did not describe receiving emotional support from her husband. The majority of these women expressed feeling greater tension or nervousness during their pregnancies and having stress from the responsibility of managing their lives, especially taking care of the children. These women tended to describe the pressure of having to manage their families as having the largest impact on their mental health during pregnancy – especially in comparison to when they had fewer responsibilities, such as when they did not work or when their husband was around to help with the children. One of these women, who reported that she felt "psychological weakness" during her pregnancy, explained that she thought her increased stress during this pregnancy was due to the fact that she had started working and now had greater responsibility than she did during prior pregnancies when she did not work. And, another woman in this category felt that she was most stressed during her pregnancy when her husband travelled and she was left with complete autonomy over their children, because there was no one to help her with the kids. Women in this category also expressed that an incident with a sister-in-law caused some temporary stress and that weight gain/appearance, the healthcare system, and a maid's behavior caused a bit more relatively long term stress for different women in this category.

The woman in this category who described undergoing the least stress during her pregnancy did however explain that she felt weak at one point during her pregnancy, when she lost autonomy over a decision that she thought was hers to make. This was when her husband decided to fire their maid, even though she disagreed with his decision and after he told her to make the decision whether or not to fire the maid. She had been stressed out about the maid talking to a man and was torn about whether or not to fire the maid, but when her husband took the decision away from her she felt worse.

Generally, the women in this category spoke less about stress during pregnancy compared to women in Type 1 category. These women did not discuss their stress, anxiety or depression in the context of their autonomy, as did Type 1 women. Additionally, these women did not discuss having any stress from unplanned or poorly spaced pregnancies or from problems within their marriages – two of the more substantial stressors for women in the first category. However, the majority of these women did discuss that their pregnancies increased their usual tension or anxiety, as it similarly did for women with Low Autonomy (Type 1); however, this impacted one of the women more than the other.

Type 3: High Autonomy, Restricted Mobility

Ten women had high autonomy over their personal economic decisions and varied autonomy over their personal mobility. Among the mobility arenas of decision-making, most of these women had two high autonomy scores and one low score, one woman had two high scores and one medium score, and two women had one high, one medium and one low score. The women in this category were employed, had a wide range of educational backgrounds and parity (education: primary to university degree & parity: 0 to 10 children), though the majority of women only had one to three children, and ranged in age from 27 to 40.

Women in this category were all employed; therefore they had their own salaries over which they had exclusive autonomy. Even though one woman reported that her husband controls all of their money; he gives her an allowance, which she exclusively controls. None of these women ask permission to spend their salaries or allowance. According to half of these women, they do not and would not consult anyone before making purchases or selling personal assets no matter the size, while the other half reported that although it is up to them to make the final decision, they may consult their husband or siblings when selling or buying something (generally a larger asset such as a car or real estate). One woman explained why it is good to consult someone else when making economic decisions, stating, "Guidance is nice, not taking orders no, but just consultation. You get to see their point of view" (age 40, 3 children, education not recorded).

Unlike these women's fairly high autonomy over their personal economic decisions, there are greater restrictions on their mobility; however, these women do not necessarily face the same exact restrictions, and they have greater autonomy over their mobility than the Medium Autonomy, Restricted Mobility women (Type 2). Some of the Type 3 women are allowed to drive, but a couple of the women who can drive are the only women who must always ask their husbands for permission to go out of the house. However, one of the women who must always ask for permission to leave the house recently walked out of the house, temporarily leaving her husband, after he beat her during her pregnancy. (She did eventually return home after her husband pleaded with her brother.) A few of the women who do not drive explained that they are expressly forbidden from driving by both their husband and family or more generally by Qatari "customs and traditions." The majority of women in this category do not need to ask their husbands for permission to go out – so long as they are not travelling far, such as outside of

Doha or to the North of the country. They simply inform their husband when they are going out. The women in this category are also generally allowed to go out unaccompanied, but several of them usually or prefer to go out with either their husband, sisters, children, or bring their maid rather than go out alone. Because most of these women do not drive, most of them at least go out with a driver. Only one of these women described never going anywhere on her own, other than work or her parents' home. If she needs to go anywhere else without her husband she brings her sons. A few of the women also reported that they are generally not allowed to go to certain places such as Katara Cultural Village or the Pearl – a new real-estate development with high-end shopping, luxury apartments, five-star hotels, and international cuisine – because there are a lot of men there and in one case the beach because it is far away.

Outside the contexts of economic decisions and mobility, the women in this category had varied autonomy and support. Only a few of the women in this category discussed making decisions with or having support from their husbands when raising their children; however, none of them complained that they did not receive this support from them. Only one of the women explicitly said her husband allowed her to control her fertility, and several women discussed having unplanned pregnancies but did not discuss their autonomy over their fertility. Only one of the woman in this category described experiencing violence and none of these women expressed feeling isolated, but the majority of them described that their outings decreased during pregnancy. This change in mobility was mostly due to the physical effects of their pregnancies and not a loss of autonomy. A few of these women expressed that they generally accepted their lack of autonomy and did not attempt change their situations. For example, one woman stated, "Honestly I'm submissive and I don't like to interfere in situations" (age 40, 3 children, education not recorded), while another woman said that she would have been able to tolerate the

beating if she had not been pregnant. Half of the women in this category expressed having fairly good communication with their spouses, where their husband consult them on different decisions or they discuss decisions together, but several of the women in this category explicitly discussed having poor communication with their husbands where they did not share their thoughts with their husband and /or he would not engage with them in conversations. The majority of women described having support or greater understanding from their spouses during pregnancy; however, a few described a lack of emotional support or explained that their husbands were the cause of their stress rather than the relief from it.

Experiences of stress during pregnancy

A majority of women in this category described undergoing a substantial amount of stress during some of their pregnancies and all of the women experienced different forms of stress or increased irritation at some point during their pregnancies. The majority of these women felt stress from their employment during their pregnancies, generally from the extra burden of work, – a distinct difference from the women in the first two categories. However, one of these women who felt a great deal of stress from work explained that one of the reasons she felt stressed and frustrated was because she tries to assert her rights at work but no one listens to her. Half of the women in this category described feeling more emotionally sensitive or irritable from pregnancy hormones or the pregnancy itself – a common sentiment across many women in the study. Additionally, a substantial minority of women in this category discussed having stress from health issues, marital problems, and weight gain/appearance. Stress from weight gain/appearance was also an issue brought up in the second category of women, and stress from health issues and marital problems were discussed in the first but not the second category of women. A few women also described experiencing stress from poorly spaced/unplanned pregnancies, the

responsibility of balancing employment with taking care of children, their maids, their family members (not their husband), and the healthcare system – insensitive doctors, inconsistent information or inadequate provision of time and information. Stress from studying at school was only mentioned by one woman in this category, and it was the only instance that a woman in the study described feeling stress from studying at school during pregnancy. Only one woman in this category expressed that her stress and irritation were exclusively due to physical and hormonal changes in her body during pregnancy. This may be explained by the support and understanding she described receiving from her husband during pregnancy. For example, she said that he would just allow her time to calm down when she was feeling upset and stressed.

A few women in this category also described some of their experiences of stress during pregnancy in contexts where they lacked or likely lacked autonomy (generally outside the contexts of economic decisions or mobility). Their experiences are highlighted below in order to illustrate the potential relationship between autonomy and stress during pregnancy.

One woman in this category, who experienced marital stress and upset during pregnancy, explained that she was in her second marriage and that she does not feel capable of speaking up to her husband and sharing her thoughts with him, because she does not want to risk a divorce for the sake of her daughters. She is worried that if she speaks up their arguments could lead to another divorce. She explained that during this pregnancy it was more difficult to restrain herself from speaking up, and recently she spoke back to her husband leading to an argument, which she regretted but it was followed by increased anxiety. At one point in describing her stress she said that she often feels “consumed by her thoughts” and if she stayed by herself she would “feel suffocated” and might cry (age 31, 2 children, secondary education). To deal with the stress she said she likes to get out of the house and go to the beach, but her husband won’t allow her to go

to the beach alone, and she does not want him to accompany her – making it more difficult for her to deal with her stress during pregnancy. Although none of the women in this group explicitly expressed feeling depressed at any points during their pregnancies, this woman described symptoms of depression.

It also appeared that another woman's marital stress, in this category, was influenced by her husband's attempt to remove her autonomy over her personal health choices during her pregnancy. At one point when she decided she did not want to have any injections during her current pregnancy her husband told her that she had to take them, saying that is what the doctor said to do. Even though he was pressuring her and attempted to make the decision for her, she secretly did not have the injections.

The women who experienced stress from unplanned and poorly spaced pregnancies expressed a great deal of increased stress and exhaustion during these pregnancies, but none of them spoke directly about contraception and whether or not their husbands forbid them from using it. However, one woman, in discussing the pregnancy advice that she would give to her daughter when she grows up, she said that she would tell her daughter to plan out her pregnancies and ensure that there is space between the pregnancies so she does not tire herself out and so that she can give enough attention to the children she already has. Another woman, who was married at age 14 and already had ten children, in explaining the stress she felt from an unplanned and poorly spaced pregnancy said, "It is God's will….It is true I may have some thoughts, but I always praise God. It is God's will" (age 38, 10 children, primary education), appeared to demonstrate that she did not have and possibly did not even imagine that she could have autonomy over when she gets pregnant.

Type 4: High Autonomy, Independent Mobility

Six women had high autonomy across all four decision-making arenas. Women in this category were employed, had a high level of education (half had some university education; half had a university degree), had varied parity (zero to six children), and ranged in age from 27 to 44 years. One woman was not married and going through her second divorce.

The women in this category, like most other employed women in the study, had autonomy over their salaries. None of them ever asked their husbands for permission to spend their own money, and several of them mentioned that they still spend their money as they choose even if their husband disapproves of their choice. For example, one women discussed that she likes to give her money away to those in need even though her husband tells her not to. She stated, "I like to give on my own; I don't like it when anyone imposes something on me. I give as much as I can" (age 34, 0 children, some university). She explained that it is her salary, she can do whatever she wants with it and it does not concern her husband. Half of the women in this category reported that they never consult anyone when buying and selling items, while the other half said that they would generally consult their husbands when buying or selling something. Only one woman reported that her husband would not allow her to sell her jewelry, but she also added that if she needed money or preferred different jewelry he would just buy her more. Many of these women said that their husbands would consult them on different financial matters, depending on the person, this ranged from buying personal items to every major issue.

Unlike the other women in the study, the women in this category also had high decision-making autonomy over their mobility, though at least some of the time the majority of them still inform their husbands when and where they go out. Some of these women technically said that they ask their husbands for permission to go out, but essentially they are just informing their husbands, because they say that their husbands never say no or restrict their movement. For these

women, informing their husbands of their movement is essentially an act of respect, since their husbands do not actually restrict their ability to go out of the home. For example, when one woman goes out for a short period of time, such as an hour, she does not need to tell her husband where she is going and if she is wearing her Abaya then her husband knows she is headed out. But, if she is headed out for a longer period of time, she informs him where she is going. The extract below illustrates how women in this category are able to make decisions about their mobility.

> *I now take the decision of going where I want to go. I can go alone. I take my own decisions. My strength even grew after I gave birth to my first child. Sometimes I do not even ask my husband for permission if I am going somewhere, because he knows my work requires I move around to meet with people. For example, I can be at work and go out three or four times for meetings then come back to work and leave to go home afterwards. I do not call and bother him each time I am going to a meeting. I am independent. Work has given me the power to go wherever I want without taking anyone's permission. And without taking my parents' permission.* (Age 27, 1 child, university degree)

All but one of these women drive without any restrictions, and the woman who does not drive reported that her husband wants her to apply for her driver's license but she decided she does not want to. These women can generally go out on their own; however, many of them still prefer to bring their children with them or go out with their sisters, mothers, female friends or husbands. One of these women mentioned that she is not permitted to go on work trips out of the country without her husband or father as a companion, because she would be traveling alone without another woman. However, it seems unlikely that any of the other women in this category would

be allowed to travel out of the country without another woman or male family member. No other woman mentioned such a scenario.

Overall, there is a sense of partnership, support, and communication between the women in this category and their spouses, with the exception of the woman who was not currently married. Again with the exception of the divorced woman, none of these women discussed having a lack of support from their husbands in raising their children or that this was an issue. Alternatively, one of these women even mentioned that her husband will take responsibility for the children when she is feeling particularly stressed during her pregnancy. Most of these women also discussed having taken personal decisions to improve their education in some way, whether this was through taking a course at work or deciding to go back to school after getting married. Half of the women in this category also talked about making personal decisions to control their fertility at different points in their marriages, such as when one woman said, "I will have one, two or three babies. But if I think I am unable to handle them, I will not have three. It is important to have some control" (age 27, 1 child, university degree). None of the women mentioned experiencing violence or isolation, with the exception of the divorced woman who chose to isolate herself at her parents house during her second divorce because she did not have the courage to leave the home. However, it was her choice and not her parents' choice to remain in the home.

Experiences of stress during pregnancy

The women in this category experienced stress at different points during their pregnancies; however, with the exception of two participants who had exceptional experiences unrelated to the two examined decision-making contexts, the women did not report to have high

stress or mental health issues during their pregnancies.‡‡ Both of these women described experiencing high levels of prolonged stress and depression; however, the divorced women explained that in prior pregnancies she never felt the stress that she experienced during her current pregnancy, and the woman who experienced health issues during her previous pregnancies said that during this pregnancy she felt at ease because she was no longer experiencing any health issues.

The majority of women in this category expressed feeling easily irritated or more emotionally sensitive during their pregnancies, and half of them experienced some form of stress due to health issues, fear of raising their new child/children, absence/sickness of family members, and marital problems. Additionally, half of them also reported experiencing depression, though two of the three experiences of depression came from the women who experienced the divorce and major health issues. Women in this category also experienced bouts of stress due to work, the responsibility of balancing employment with children, the healthcare system, weight gain/appearance, or divorce (as mentioned above). Stress and/or anxiety related to these women's decision-making autonomy generally came from one off events that did not lead to long-term stress and was in frequent. A few of these women explained that they temporarily experienced pressure after their husbands made or tried to make decisions for them that they did not agree with. Extracts from two different women illustrate this below.

> *For instance, when I was in my 6th month, I used to go and tell my husband let us go and finish buying the baby's things, and he would say we should wait because we don't know yet if it will be a boy or a girl. And I used to feel like I am under psychological pressure because I wanted to finish everything. I was afraid I would become too heavy because I*

‡‡ The two women who did not fit this pattern were the woman who was going through her second divorce in two years and fighting a custody battle with her first husband over their children and another woman who during her two previous pregnancies was informed that her babies would likely be malformed due to her personal health issues.

was feeling pain. I just wanted to finish everything and we had a small quarrel about it. A small quarrel and as it turns out, he was right, because they told me first that it was a boy, then they said it was a girl – until now, I am still uncertain of the baby's sex. (Age 34, 0 children, some university)

I felt some pressure during the first few months because he did not understand what I was going through. He wanted me to go back to his parents' place but I did not want to. I wanted to stay with my parents because I was feeling sick all the time. But now I am back to normal and I no longer feel any pressure. Well, the only problem and the only pressure I felt was because he was trying to convince me to go back home, and I did not want to because I could not stand staying there. I was staying with my parents. But when he finally understood why, I was very relieved and so was he. It depends on the problem; I told you, during the first three months of the pregnancy I cannot do anything, but after that I feel better, and I no longer feel any pressure. He did not understand this. I always try to make him understand. I try to solve the problem. (Age 27, 1 childe, university degree)

Other than the divorced woman, none of the women in this category expressed having high or log term stress or depression in relation to their decision-making autonomy. This is almost the complete opposite experience from the women with Low Autonomy (Type 1) in this study. Unlike the women in this study with more varied decision-making autonomy (Type 2 & 3), who experienced varied and majority substantial stress, there is a clear pattern of low stress, usually for relatively shorter periods of times, (excluding the two exceptional experiences) across the women in this category.

As mentioned above, the exception to this category primarily came from the divorced woman who had ongoing stress from her first divorce and the fact that she was bringing a new child into the world without a father to help raise it. Although she technically made the decision to divorce her second husband, as she explains, the decision was not really entirely hers. Explaining why she got divorced, she stated, "First of all because I did not adapt [to her second husband], and second because the father of my children wanted to take custody of my children away from me. So I felt as if I would not take that, because I cannot live without my children to be honest" (age 34, 6 children, some university). As a result of her situation, she explained that she felt depressed and could not accept her new pregnancy, that she did not have the courage to go out of her parents home, and that at any point going to, leaving or being at work she might burst into tears.

V. Discussion

Mental health is only just beginning to be recognized as a health issue in Qatar. In 2013 the Ministry of Health launched its premiere strategy on mental health, *Qatar Mental Health Strategy: Changing Minds, Changing Lives 2013-2018* (General Secretariat Supreme Council of Health, 2013); however, this strategy does not yet address maternal mental health. Additionally women's mental health during pregnancy in the Middle East has only recently begun to receive attention, and this is the first study, in Qatar and the Middle East to explore the relationship between women's empowerment and their mental health during pregnancy.

Within this context of an emerging focus on mental health and specifically maternal mental health in the Middle East, this analysis is timely and reveals a potential relationship between Qatari women's decision-making autonomy (agency) and their mental health

(specifically stress), during pregnancy. This analysis presents a typology of decision-making autonomy amongst pregnant Qatari women within the contexts of personal economic decisions-making and mobility, and characterizes their experiences of autonomy, social support, and stress/mental health issues during pregnancy. Four distinct categories of women emerged on a continuum of autonomy: Type 1: Low Autonomy, Restricted Mobility Type 2: Medium Autonomy, Restricted Mobility; Type 3: High Autonomy, Restricted Mobility; and Type 4: High Autonomy, Independent Mobility. The analysis also characterized pregnant Qatari women's perceptions of autonomy within Qatari society and their perceptions of the common causes of stress for pregnant Qatari women. The analysis found that there was generally an inverse relationship between the women's experiences of autonomy and their experiences of stress during pregnancy; however, this relationship was less clear for the middle categories whereby women reported varied autonomy in different spheres. The following discussion will explore the nature of this relationship and how it relates to the existing research on mental health during pregnancy and women's empowerment and mental health.

As depicted in Figure 1, pregnant Qatari women experience a wide range of autonomy, within the context and personal economic decision-making and mobility, ranging from almost no autonomy at all to almost complete autonomy over daily decisions within theses contexts. However, even the women with the highest autonomy face some small restrictions on their mobility, such and needing to go through the process of informing their husbands of many of their daily movements or being unable to leave the country without another female or male relative. The women have much less diversity in their autonomy over their economic-decisions compared to their mobility. There does not appear to be a relationship between women's

economic decision-making and their autonomy over their mobility – except possibly when women have no autonomy over economic decisions.

Instead, employment was the major influence on women's control over economic decisions. The only two women who had Low Autonomy in this study were also those who were unemployed housewives and who had low autonomy over economic-decisions. With a few exceptions, women across the continuum of autonomy made it clear that it was their right to do what they want with the money they earn from their employment, and that it is generally up to their husbands to provide for the family. It was generally their choice to contribute to household expenses. The analysis suggests that if a Qatari woman is not employed she will not to have the opportunity to control assets and make personal economic-decisions, unless her husband provides her with a substantial allowance without restrictions; however this was not observed in this study. The women's experiences of autonomy over their economic decisions generally align with their perceptions of women's economic decision-making autonomy within Qatari society, which asserted that according to the Quran and Qatari society a man is responsible for household expenses and a wife should not be obliged to help pay for those expenses. This finding aligns with the findings from a study in the UAE, which also found that men tend to control household expenses and women tend to control the money that they earn from employment and are not expected to share it with the household (Haghighat, 2013).

The potential effect of Qatari women not working for wages outside the home on their autonomy is an important finding, because as of 2016 only about 37 percent of Qatari women were employed (Ministry of Development and Planning Statistics, 2016). Although the data from Qatar (Bahry & Marr, 2005) and the women's discussion of recent changes in Qatari society demonstrate that women's participation in the paid labor force has generally been increasing,

though in the last few years it has decreased (Ministry of Development and Planning Statistics, 2016), many women in Qatar are still not working outside the home and may not have access to the same economic autonomy as employed women in Qatar. As the women in this study with low autonomy over economic decisions also had low autonomy over their mobility and high continuous stress during pregnancy it may be important to consider further avenues for facilitating women's participation in the paid labor force. Other research in Egypt, which focused on the association between domestic violence and women's anxiety and depression during pregnancy did not find an association between women's employment status and anxiety and depression during pregnancy (Abdelhai & Mosleh, 2015). However, as noted earlier in the literature review, this Egyptian sample is likely dissimilar to Qatari women, especially in regards to economic and labor opportunities.

Women's employment may help to ensure that pregnant women are capable of leaving their home on a regular basis, but this analysis demonstrates that it does not necessarily impact their autonomy over their mobility. Employed pregnant women in this study still had restrictions on their mobility – meaning that some women were not allowed to drive or they could only drive under severely restricted circumstances, had to ask for permission to leave the home, or could only leave the home when accompanied by their husband while others were allowed to drive without restriction, did not have to ask their husband for permission to leave the home, or could leave the home alone or with just their children. Because detailed information on the type of women's employment was not collected across all women in this study, we are not able to assess how different forms of employment may influence pregnant women's autonomy over their mobility.

Unlike employment, the women's highest educational attainment roughly followed the same pattern as the typology of their autonomy on the continuum depicted in Figure 1. The women with Low Autonomy, Restricted Mobility had limited education (primary or secondary), the women with Medium Autonomy, Restricted Mobility only had a secondary education, the women with High Autonomy, Restricted Mobility had varied education (primary through university degree), and the women with High Autonomy, Independent Mobility had an advanced education (some university or university degree). Though the women with High Autonomy, Restricted Mobility, overall had varied educational attainment, a substantial minority of them did have at least some university education and a couple of their educational attainment's were not recorded. Though their educational attainment does not perfectly fit this pattern it does show at least the beginning of a step up in education from the first two categories of women. More distinctive is the stark contrast in educational attainment between the categories of women with the least and greatest autonomy. No woman with Low Autonomy, Restricted Mobility had more than a secondary education and no woman with High Autonomy, Independent Mobility had less than some university education. This general pattern and stark contrast indicates that women with limited education likely find it difficult to make autonomous decision about their lives, at least within the context of personal economic decisions and mobility. These findings align with the current literature about the importance of education to women's empowerment but are in contrast with some of the discussion in the literature around the impact that educational attainment has on women in the Middle East, which discusses how women's educational advances may not always increase their social status due to the fact that parents are often more concerned about making a strong marriage than improving their daughter's ability to develop an advanced career (Haghighat, 2013).

As the women's pattern of educational attainment roughly aligns with their experiences of autonomy so too does it with their general experiences of stress and mental health during pregnancy, meaning those with limited education tended to have higher stress during pregnancy and those with more advanced education who tended to experience lower stress during pregnancy. This outcome supports findings from a systematic review in western countries on risk factors for antenatal depression, which found an association between lower education and depressive symptoms during pregnancy in bivariate analyses (Lancaster et al., 2010) and a study in Jordan, which found significant associations between educational attainment and symptoms of antenatal depression (Abujilban et al., 2014). Of note though is that in Lancaster's systematic review, lower education was no longer significantly associated with depressive symptoms during pregnancy in multivariate analysis, but a lack of social support was one of three factors that did remain. Alternatively, the Jordanian study found that family and non-family social support were not significantly associated with symptoms of antenatal depression but educational attainment was in their multiple regression model (Abujilban et al., 2014). Finally, studies in Qatar on risk factors for PPD found contradictory associations between educational attainment and PPD (Bener, Burgut, et al., 2012; Bener, Gerber, et al., 2012) making it difficult to further understand how the results from this analysis fit in to the Qatari context during pregnancy.

There is not a clear pattern between the women's autonomy and their marital or social support; however, there is a stark contrast between the Low Autonomy, Restricted Mobility women's marital relationships and support compared to the High Autonomy, Independent Mobility women's marital relationships and support. The Low Autonomy, Restricted Mobility women did not receive emotional support or support in raising their children from their husbands, had poor communication with their husbands, and either did not have any support

from family or simply could not access their family for support due to the severe restrictions on their mobility. Additionally one of them was regularly exposed to verbal and physical violence from her spouse, brothers, and father. Essentially they completely lacked any social support. Alternatively, the women with High Autonomy, Independent Mobility reported to have support, communication, and partnership with their spouses and at least some support in raising their children. Because the women with Medium Autonomy, Restricted Mobility reported to have emotional support, and the women with High Autonomy, Restricted Mobility reported to have varied marital and social support there is not a clear pattern between social support and autonomy. However, it is important to note that not all of the women with Medium Autonomy, Restricted Mobility found emotional support from their husbands. Further research is needed to explore the potential relationship between a severe lack of autonomy over mobility with lack of access to social support. It is possible that this only exists in more extreme contexts where Qatari women are severely isolated from the rest of their communities and family.

As depicted in Figure 1, the analysis demonstrates that there is a potential inverse relationship between pregnant Qatari women's decision making-autonomy and their experiences of stress or other mental health issues during pregnancy. The women with the least autonomy experienced high continuous stress and other mental health issues compared to the women with the greatest autonomy who experienced low and often short-term stress or other mental health issues. The pattern was less clear for women with varied autonomy as those with Medium Autonomy, Restricted Mobility experienced varied stress and the majority of those with High Autonomy, Restricted Mobility experienced substantial stress during their pregnancies. The analysis also shows that the influences of women's autonomy on experiences of mental health during pregnancy are likely impacted by the marital and social support that women feel and have

access to. As discussed above, at either end of the continuum women's support tends to match their experience of autonomy. As many women across the continuum of autonomy described feeling more emotionally sensitive or irritable during pregnancy, or expressed that pregnancy heightens everyday stressors it is logical that women required greater support during their pregnancies to mitigate the heightened emotions or stress that they felt. It is possible that the women with the least autonomy lacked the opportunity to access the necessary support to mitigate or handle their increased stress during pregnancy, some of which was directly tied to their general lack of autonomy, while the women with the greatest autonomy who experienced different forms of stress had the autonomy and possibly greater resources to deal with their stress. It is also possible that greater support explains why the women with High Autonomy, Independent Mobility tend to experience less stress, particularly from employment than the women with High Autonomy, Restricted Mobility the majority of whom experienced both stress from employment and substantial stress. It is also possible that socioeconomic status explains these categories' different experiences of stress; however, this study did not collect data on this and therefore cannot make further conclusions.

Although this is the first study in the Middle East to examine the relationship between women's decision-making autonomy and mental health during pregnancy it builds upon a study from Egypt, which found an association between women's empowerment and their generalized anxiety (though the study did not examine anxiety during pregnancy) (K. M. Yount et al., 2014). Because the decision-making arenas discussed by the women in this study do not completely align with indicators of agency used in Yount et al.'s (2014) study, it is difficult to compare how women's agency is impacting women's mental health across these two different studies; however, the findings from this study do somewhat support their finding that exclusive decision-

making about visits to family were associated with lower generalized anxiety (K. M. Yount et al., 2014), since the women in this study who had high autonomy over their mobility also had high support and experienced low stress and anxiety during pregnancy. Because this study did not collect data across most women on exclusive decisions on healthcare, major household purchases, or daily household purchases, it is difficult to speak to the contradictory associations found in Yount's (2014) study between women's agency and anxiety, particularly their findings that exclusive decisions over healthcare and major household purchases were associated with higher generalized anxiety. However, many women in the first three categories of autonomy in this study felt stress from the responsibility of managing their family, or employment with children or from their employment and reported to have low or varied support, so it is possible that women who have greater autonomy and greater responsibilities, and who lack support, either emotional or financial, experience greater stress compared to women who experience high autonomy and high support. Furthermore the experiences of women in this study on autonomy, support, and stress during pregnancy continue to support Yount and Smith's discussion (2012) that literature from the Middle East on PPD has tended to find that "(1) poor support, (2) experiences of violence, (3) frustrated efforts to achieve norms of motherhood, and (4) specific features of patriarchal kinship are important contexts within which PPD occurs," (p. 187).

The analysis did not observe a potential relationship between women's parity and their experiences of autonomy and stress, but it did observe a potential relationship between women's control over their fertility and their experiences of mental health during pregnancy (not observed in women with High Autonomy, Independent Mobility), which would be worth exploring more explicitly in further studies. Other evidence in the literature further supports this potential relationship. A systematic review from Western countries found that unintended pregnancy was

associated with depressive symptoms during pregnancy, but only in bivariate analysis, and studies from Morocco and Jordan have found an association between undesired pregnancy and unplanned pregnancy, respectively, with antenatal depression (Alami et al., 2006; Mohammad et al., 2011). It is necessary to ensure that all Qatari women are able to make decisions about their own fertility and access contraception so that they can choose to have children when they want and space their births so that they are less stressed during pregnancy, ensuring the future growth of their children.

VI. Implications

In light of the results of this analysis, showing a potential relationship between women's decision-making autonomy and mental health during pregnancy, it is encouraging that in recent years the government of Qatar has made commitments to strengthening family cohesion and women's empowerment (General Secretariat for Develpment Planning, 2011) and improving women's maternal health (General Secretariat, 2013) and the mental health of Qataris more broadly (General Secretariat Supreme Council of Health, 2013). Additionally, The Qatar National Vision 2030 calls for "Coverage of preventive and curative healthcare, both physical and mental, taking into accounts the differing needs of men, women, and children" (Supreme Council of Health, n.d., p. 2). Further research, including quantitative research, is necessary to further explore the validity of this potential relationship discovered through this exploratory qualitative research with pregnant Qatari women. Should it prove valid, action will need to be taken across several different arenas in Qatar, most importantly around women's empowerment both within the family and society and within prenatal care to include or improve screening and treatment for stress, anxiety, and/or depression.

As Qatar begins to focus more on mental health, this analysis provides another opportunity for the state to begin thinking specifically about women's mental health during pregnancy and more broadly about maternal mental health and what changes might need to be made in order to reduce women's poor experiences of mental health during pregnancy – both in society and clinically. This would not only improve the health of the pregnant women but also improve the growth and development of their children. We believe that the Supreme Council on Health and the Ministry of Public Health may be open to exploring the results of this analysis since they already recognize that social and economic factors, in addition to biological factors, explain the different health challenges that Qatari women face compared to men (Ministry of Public Health, n.d.), in addition to the fact that their new strategy on mental health already recognizes several risk factors (isolation, poor social networks, abuse, and low perceived power) and protective factors (participation in civic activities and social engagement, strong social networks, supportive family structure, feeling of trust, and feeling of control over life decisions) for mental health (General Secretariat Supreme Council of Health, 2013), which women discussed experiencing during pregnancy in this study.

If further research demonstrates that this potential inverse relationship between Qatari women's decision-making autonomy and stress during pregnancy is valid, a great deal of focus will need to be placed how to create societal and cultural changes in Qatar to increase women's autonomy. This will especially be true for women with the least autonomy in Qatari society so that they can takes steps to move further up the continuum of autonomy in order to prevent poor mental health during pregnancy. It is difficult to change gender and social norms, but if these changes are not made it may be difficult to prevent and or treat some of the more vulnerable pregnant women in Qatar and improve the long-term growth and development of their children.

Appendix A

SSI Guide:
Pregnant women in their Second or Third Trimester in Hamad Medical Institution

Interview Identification Number:
Date:

Interviewer Name:

Interview location:

1. **Outpatient Clinic**
2. **Inpatient Clinic**
3. **Feto-Maternal Unit**

Start time:
: (M/E)
(hour) (Minute) (First circle)

End time:
: (M/E)
(hour) (Minute) (First circle)

Audio file number: _____

Social and Economic Survey Research Institute – Qatar University
Emory University

Consent to be a Research Subject
Qualitative Interviews

Title: WOMEN'S AGENCY IN PREGANANCY AND PRENATAL MENTAL HEALTH

Principal Investigators*:* Dr. Monique Hennink (Emory University), Dr. Hanan Abdul Rahim (Social and Economic Research Institute – SESRI, Qatar University), Dr. Kathryn Yount (Emory University), Dr. Suhaila Ghuloum (Hamad Hospital), and Dr. Salwa Abu Yaqoub (Hamad Hospital).

Sponsor's Name: Qatar National Research Fund

Introduction/Purpose:

We are conducting a research study to learn about women's mental health during pregnancy in Qatar. You have been invited to take part because you are a pregnant woman visiting Hamad Medical Corporation for a prenatal visit.

Why are we doing the research?

We are conducting a research study to learn about women's mental health during pregnancy in Qatar. The study is to characterize women's empowerment (resources and agency) in pregnancy and its relationship with the prenatal "distress" during pregnancy.

How long will the research take?

We think that you will be in the research for a one time interview, although we may contact you for further information. The interview may take up to two hours.

We expect the research to last for 26 months from the start date: 1 Nov. 2015.

How many people will take part?

This part of the study will be undertaken in 2 phases, with a total of 40 women. There will be a different type of interview in each phase. For each phase, we aim to recruit 20 women in their second or third trimesters who are waiting for their prenatal appointments at the Women's Hospital of Hamad Medical Corporation.

Procedures:

I would like to invite you to take part in an interview, we will ask you to do the following:

If you agree, I would like to ask you some questions about family, work, education, the role of men and women in society, and your mental health. You will be interviewed privately. . With your permission, I will audio record our conversation, because I will not be able to write everything down, and everything you say is important to me. The audio material will not be published in audio format or released for publicity of research findings. The recordings will be transcribed and we will be sharing the transcriptions with our collaborators. The recordings will be destroyed at the end of the study.

It is possible that I might need to follow up on this conversation, and in that case, I would visit you again and ask you to take part in another interview.

Risks:

This is an observational study and the risk of participation is considered minimal. We are going to be asking questions about mental health and your education, work and family. There may be questions that you feel uncomfortable answering. You may skip any questions that you are uncomfortable answering. You may choose not to have your answers audio recorded.

The study might have some confidentiality risks but the study team has taken steps to protect your information from a breach of confidentiality. These measures will be described later in this form. There may be risks or discomforts that are not yet known.

Benefits:
Taking part in this study may not benefit you directly, but researchers and policy makers may learn new things that will help others.

Confidentiality:

We will make efforts to secure information about you. This includes using a code to identify you in our records instead of using your name. We will not identify you personally in any reports or publications about this research.

The answers you give will be kept confidential and will only be seen by researchers working on this study. We will not record your full name, and your file will only be identified by a number. All completed forms will be stored in secured computers in locked cabinets/ rooms. All digital audio recordings will be transferred from audio recorders to password-protected computers. The recordings will be transcribed and we will be sharing the transcriptions with our collaborators. The recordings will be destroyed at the end of the study.

We cannot guarantee complete secrecy, but we will limit access to information about you. Only people who have a need to review information will have access. These people might include:

- Members of the research team and other QU AND Emory representatives whose work are related to the research or to protecting your rights and safety
- Representatives of the Qatar Supreme Council of Health and QNRF and Medical Research Center- HMC who make sure the study is done properly and that your rights and safety are protected
- Your physician

Compensation:
There will be no compensation for your participation in this study.

Cost:
There will be no costs for you to take part in this study.

Contact Persons:
If you have any questions about this study, you can call 44033031 here in Qatar or email sesri@qu.edu.qa or visit the website at http://www.qu.edu.qa/sesri. If you have any questions about your rights as a research participant, you can also contact the Qatar University Institutional Review Board through the Office of the Academic Research at 44856356 or QU-IRB@qu.edu.qa or the Emory University Institutional Review Board at (001 404-712-0720) or (001 877-503-9797) or irb@emory.edu.

New Findings:
We may learn new things during the study that you may need to know. We also can learn about things that might make you want to stop taking part in the study. If so, we will tell you about any new information.

Voluntary Participation and Withdrawal:
Taking part is voluntary and you can choose not to be in this study and we will not hold it against you. If we come to a question you do not want to answer, let me know and we can go to the next question. You may refuse to have your answers audio-recorded. You also can stop the interview at any time. We hope you will take part because your answers are important. The investigator or sponsor may stop the study or take you out of the study at any time, even if you would like to continue.

Consent:

Do you have any questions for me about this study? [IF YES, REPEAT INFORMATION ABOVE]

Will you agree to take part in the study? (If YES, ask next question and complete the form. If NO, STOP here.)

May I begin the interview now or can we set a time for the interview? We will give you a copy *(one for each father, mother, and daughter)* of this consent form to keep.

Option 1: Will you agree to be interviewed and to have the interview audio recorded?

_____ _____ _____ ***Initials of person obtaining***
Subject's name Date Time consent to interview _____

_____ _____ _____
Witness Date Time
(if required)

_____ _____ _____
Person Obtaining Consent Date Time

Option 2: Will you agree to be interviewed but NOT to have your interview audio recorded?

_____ _____ _____ ***Initials of person obtaining***
Subject's name Date Time consent to interview _____

_____ _____ _____
Witness Date Time
(if required)

_____ _____ _____

Person Obtaining Consent ***Date*** ***Time***

Semi-Structured Interview Guide

PART 1: Introduction

Thank you for agreeing to take part in this interview. I am a researcher with the Social and Economic Survey Research Institute at Qatar University. [If needed: This is my colleague _____, who will be helping me today.] Just to remind you, we are conducting this study to understand women's experiences of stress and feeling powerful or powerless during pregnancy. We are most interested to hear your personal experiences and stories from your own pregnancy so that we can learn from you. Let's start the interview.

PART 2: Introductory questions

1. How many weeks pregnant are you? (if don't know, how many months pregnant are you?)
2. Is this your first pregnancy? If no, how many children do you have?
3. How old were you when you had your first child?

PART 3. Women's Definitions and Experiences of Empowerment during Pregnancy

I would first like to hear your thoughts about what it means to be a powerful woman…

4. When you think of a powerful woman, what words or phrases come to your mind?

   Probes: How can you tell a woman is powerful (act, speak, characteristics)? How is she viewed by the community?

5. During this pregnancy, tell me about any time you felt <u>powerful</u>.
   Probes: What made you feel powerful? If the woman cannot provide stories about this pregnancy, ask about previous pregnancies (if applicable). [Allow the woman to tell her own story, and ask follow up probes for details/examples]

6. How would this experience have been different if you were not pregnant?

Probe: why would it be different?

7. In your opinion, how could pregnancy make a woman more powerful?
   Probe: Why could she be more powerful during pregnancy?
   In what ways could she be more powerful during pregnancy?
   Who/what could make her more powerful during pregnancy?

PART 4. Women's Definitions and Experiences of Disempowerment
I would now like to hear your thoughts about what it means to be a powerless women…

8. When you think of a powerless woman, what words or phrases come to your mind?
   Probes: What characteristics does she have? How is she viewed by the community?

9. During this pregnancy, tell me about any time when you felt powerless.
   Probes: What made you feel powerless? If the woman cannot provide stories about this pregnancy, ask about previous pregnancies (if applicable).[[Allow the woman to tell her own story, and ask follow up probes for details/examples)

1. How would this experience have been different if you were not pregnant?
   Probe: why would it be different?

10. In your opinion, how could pregnancy make a woman less powerful?
    Probe: Why could she be less powerful during pregnancy?
    In what ways could she be less powerful during pregnancy?
    Who/what could make her less powerful during pregnancy?

PART 5. Freedom of Movement during Pregnancy
I would now like to discuss your movement outside the home…..

11. On a typical day what are all the places that you go to outside of your home?

    a)Whose permission do you usually need to go out? Probes: Are there places you are not allowed to go to? Examples.

    b) How do you get to the places that you normally go to outside of your home?
    Probes: Do you drive yourself /have a driver? How often do you yourself drive? Who goes with you?

c) How is your movement different when you are pregnant compared to when you're not pregnant?
Probes: places, permission, driving, companion. Why is it different?

PART 6. Economic Decision-making

12. Whose permission do you usually need to spend your own money? Why?

Probes: [If she has money]:From where did you get this money?

[If she doesn't need permission]; Who do you consult about spending your own money? Do the people you consult also consult you when spending their money? How?

13. Whose permission do you usually need to sell something you own? Probe :(such as stocks, jewelry) Why?

Probes: If she doesn't need permission, who do you consult? Do the people you consult also consult you when selling something of their own? How?

PART 7. Women's Experiences of "Stress" in Pregnancy

14. What words would you use to describe "stress"?
    Probe: Give an example of each word you mentioned. How would you describe someone who is stressed?

15. What are the most common causes of stress for women during pregnancy?

Probe on causes not related to concern for baby

16. Are these causes of stress different when a woman is not pregnant?

17. a) During this pregnancy, tell me about any times you yourself felt "stress."
    Probes: What physical or emotional reactions did you have at that time? What caused your feeling of stress?

    b) If you felt stress, were these feelings of stress different when you were not pregnant ? Describe how?

18. How did you cope with stress at these times?

19. What would you advise your daughter (or sister) to do if she felt stressed during her pregnancy?

PART 8. Concluding Questions

We are coming to the end of the interview, I just have a few last questions.

20. What is your age in years?

21. How old were you when you married your husband?

22. What is the highest level of schooling that you have successfully completed?

23. Is there anything else you would like to share about the topics we discussed today?

Thank you for your time!

References

Abdelhai, R., & Mosleh, H. (2015). Screening for antepartum anxiety and depression and their association with domestic violence among Egyptian pregnant women. *Journal of the Egyptian Public Health Association, 90*(3), 101-108. doi:10.1097/01.EPX.0000471670.64665.8f

Abuidhail, J., & Abujilban, S. (2014). Characteristics of Jordanian depressed pregnant women: a comparison study. *Journal of Psychiatric and Mental Health Nursing, 21*(7), 573-579. doi:10.1111/jpm.12125

Abujilban, S. K., Abuidhail, J., Al-Modallal, H., Hamaideh, S., & Mosemli, O. (2014). Predictors of antenatal depression among Jordanian pregnant women in their third trimester. *Health Care for Women International, 35*(2), 200-215. doi:10.1080/07399332.2013.817411

Alami, K. M., Kadri, N., & Berrada, S. (2006). Prevalence and psychosocial correlates of depressed mood during pregnancy and after childbirth in a Moroccan sample. *Arch Womens Ment Health, 9*(6), 343-346. doi:10.1007/s00737-006-0154-8

Bahry, L., & Marr, P. (2005). Qatari Women: a New Generation of Leaders? *Middle East Policy, 12*(2), 104-119. doi:10.1111/j.1061-1924.2005.00205.x

Bener, A., Burgut, F. T., Ghuloum, S., & Sheikh, J. (2012). A study of postpartum depression in a fast developing country: prevalence and related factors. *International Journal of Psychiatry in Medicine, 43*(4), 325-337.

Bener, A., Gerber, L. M., & Sheikh, J. (2012). Prevalence of psychiatric disorders and associated risk factors in women during their postpartum period: a major public health problem and global comparison. *Int J Womens Health, 4*, 191-200. doi:10.2147/ijwh.s29380

Burgut, F. T., Bener, A., Ghuloum, S., & Sheikh, J. (2013). A study of postpartum depression and maternal risk factors in Qatar. *Journal of Psychosomatic Obstetrics and Gynaecology, 34*(2), 90-97. doi:10.3109/0167482x.2013.786036

Charrad, M. M. (2009). Kinship, Islam, or Oil: Culprits of Gender Inequality? *Politics & Gender, 5*(4), 546-553. doi:10.1017/S1743923X09990353

Charrad, M. M. (2011). Gender in the Middle East: Islam, State, Agency. *Annual Review of Sociology, 37*, 417-437. Retrieved from http://www.jstor.org/stable/41288615

Cherif, F. M. (2010). Culture, Rights, and Norms: Women's Rights Reform in Muslim Countries. *Journal of Politics, 72*(4), 1144-1160. doi:10.1017/S0022381610000587

Doha News. (2015). When it comes to love and marriage, more Qataris taking their time. Retrieved from https://dohanews.co/when-it-comes-to-love-and-marriage-more-qataris-taking-their-time/

Douki, S., Zineb, S. B., Nacef, F., & Halbreich, U. (2007). Women's mental health in the Muslim world: cultural, religious, and social issues. *Journal of Affective Disorders, 102*(1-3), 177-189. doi:10.1016/j.jad.2006.09.027

Fisher, J., Cabral de Mello, M., Patel, V., Rahman, A., Tran, T., Holton, S., & Holmes, W. (2012). Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: a systematic review. *Bulletin of the World Health Organization, 90*(2), 139g-149g. doi:10.2471/blt.11.091850

Forbes. (2010). Sheikha Mozah Bint Nasser Al-Missned. Retrieved from http://www.forbes.com/profile/sheikha-mozah-bint-nasser-al-missned/

Gavin, N. I., Gaynes, B. N., Lohr, K. N., Meltzer-Brody, S., Gartlehner, G., & Swinson, T. (2005). Perinatal depression: a systematic review of prevalence and incidence. *Obstetrics and Gynecology, 106*(5 Pt 1), 1071-1083. doi:10.1097/01.AOG.0000183597.31630.db

General Secretariat for Develpment Planning. (2011). *Qatar National Development Strategy 2011-2016*. Retrieved from Doha, Qatar: http://www.mdps.gov.qa/en/knowledge/HomePagePublications/Qatar_NDS_reprint_complete_lowres_16May.pdf

General Secretariat, S. C. o. H. (2013). *National Health Strategy Executive Summary Update 2013*. Retrieved from Qatar:

General Secretariat Supreme Council of Health. (2013). *Qatar Mental Health Strategy: Changing Minds, Changing Lives 2013-2018* Retrieved from Doha, Qatar: http://www.nhsq.info/app/media/1166

Glover, V. (1999). Maternal stress or anxiety during pregnancy and the development of the baby. *Practicing Midwife, 2*(5), 20-22.

Greer, W. (2013). Trends and projections of annual birth volumes in the State of Qatar: 1970–2025. *Avicenna, 2013*(1), 3. doi:10.5339/avi.2013.3

Haghighat, E. (2013). Social Status and Change: The Question of Access to Resources and Women's Empowerment in the Middle East and North Africa. *Journal of International Women's Studies, 14*(1), 273-299.

Halbreich, U., & Karkun, S. (2006). Cross-cultural and social diversity of prevalence of postpartum depression and depressive symptoms. *Journal of Affective Disorders, 91*(2-3), 97-111. doi:10.1016/j.jad.2005.12.051

Hamdan, A., & Tamim, H. (2011). Psychosocial risk and protective factors for postpartum depression in the United Arab Emirates. *Arch Womens Ment Health, 14*(2), 125-133. doi:10.1007/s00737-010-0189-8

Hill, T. D., & Needham, B. L. (2013). Rethinking gender and mental health: a critical analysis of three propositions. *Social Science and Medicine, 92*, 83-91. doi:10.1016/j.socscimed.2013.05.025

James-Hawkins, L., Shaltout, E., Nur, A. A., Nasrallah, C., Qutteina, Y., Rahim, H. F. A., Hennink, M., and Yount, K. . (2017). Human and Economic Resources for Empowerment and Pregnancy Related Mental Health in the Arab Middle East: A systematic review. *Unpublished*.

Kabeer, N. (1999). Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment. *Development and Change, 30*(3), 435-464. doi:10.1111/1467-7660.00125

Lancaster, C. A., Gold, K. J., Flynn, H. A., Yoo, H., Marcus, S. M., & Davis, M. M. (2010). Risk factors for depressive symptoms during pregnancy: a systematic review. *American Journal of Obstetrics and Gynecology, 202*(1), 5-14. doi:10.1016/j.ajog.2009.09.007

Ministry of Development and Planning Statistics. (2016). Labor Force Survey, Second Quarter (Q2) 2016. Retrieved from http://www.mdps.gov.qa/en/statistics1/Pages/LatestStats/20161012.aspx

Ministry of Public Health. (n.d.). National Health Strategy. Retrieved from http://www.nhsq.info/news-and-events/in-the-media/qatar-national-health-strategy-2011-2016-delivers-the-foundations-for-world-class-healthcare?backArt=112

Mohammad, K. I., Gamble, J., & Creedy, D. K. (2011). Prevalence and factors associated with the development of antenatal and postnatal depression among Jordanian women. *Midwifery, 27*(6), e238-245. doi:10.1016/j.midw.2010.10.008

Rahman, S., Salameh, K., Bener, A., & El Ansari, W. (2010). Socioeconomic associations of improved maternal, neonatal, and perinatal survival in Qatar. *Int J Womens Health, 2*, 311-318. doi:10.2147/ijwh.s12426

Ross, M. L. (2008). Oil, Islam, and Women. *The American Political Science Review, 102*(1), 107-123. Retrieved from http://www.jstor.org/stable/27644501

Roudi-Fahimi, F., & Kent, M. M. (2007). Challenges and Opportunities--The Population of the Middle East and North Africa. *Population Bulletin, 62*(2), 3-19. doi:http://www.prb.org/Publications.aspx

Seedat, S., Scott, K., Angermeyer, M. C., & et al. (2009). Cross-national associations between gender and mental disorders in the world health organization world mental health surveys. *Archives of General Psychiatry, 66*(7), 785-795. doi:10.1001/archgenpsychiatry.2009.36

Supreme Council of Health. (n.d.). *National Health Strategy 2011-2016: Executive Summary*. Retrieved from http://www.nhsq.info/app/media/2908

UNICEF. (2011). *Qatar: MENA Gender Equality Profile Status of Girls and Women in the Middle East and North Africa*. Retrieved from https://www.unicef.org/gender/files/Qatar-Gender-Eqaulity-Profile-2011.pdf

VERBI Software. (1989-2016). MAXQDA software for qualitative data analysis. Berlin, Germany: VERBI Software – Consult– Sozialforschung GmbH.

World Economic Forum. (n.d.). Gender Gap Gap Report 2016. Retrieved from http://reports.weforum.org/global-gender-gap-report-2016/

World Health Organization. (1998). *The World Health Report 1998: Life in the 21st century A vision for all*. Retrieved from http://www.who.int/whr/1998/en/whr98_en.pdf

World Health Organization. (n.d.-a). Maternal mental health. Retrieved from http://www.who.int/mental_health/maternal-child/maternal_mental_health/en/

World Health Organization. (n.d.-b). Mental health. Retrieved from http://www.who.int/features/factfiles/mental_health/en/

Yount, K. M., Dijkerman, S., Zureick-Brown, S., & VanderEnde, K. E. (2014). Women's empowerment and generalized anxiety in Minya, Egypt. *Social Science and Medicine, 106*, 185-193. doi:10.1016/j.socscimed.2014.01.022

Yount, K. M., & Smith, S. M. (2012). Gender and postpartum depression in Arab Middle Eastern women. *Women's Studies International Forum, 35*(4), 187-193. doi:http://dx.doi.org/10.1016/j.wsif.2012.03.017