

Daughters of Men: Saudi Women's Sociotechnical Agency and Resistance Practices in Addressing Domestic Abuse

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While domestic abuse is, unfortunately, an all too common experience for women around the world; how people experience the abuse and their resources to deal with the abuse are likely to differ. In this qualitative, interview-based study, we examine the domestic safety concerns of Saudi women living in Saudi Arabia and the United States. We describe economic-social, psychological, physical, and sexual abuse, and illustrate how women exhibit their agency in resisting or coping with abuse. We identified three key resistance practices: (1) *ideological resistance*, where women identify the abuse, (2) *sustained resistance*, where women resist while living with the abuse, and (3) *the point of rupture*, where women take action to leave or mitigate the abuse. We found these agency and resistance practices help Saudi women regain their autonomy, increase their participation in society, and maintain their overall well being. Lastly, we suggest how technology could be designed to support such resistance practices in similar patriarchal societies.

1 INTRODUCTION

Violence against women is a worldwide problem. According to the United Nations, approximately 30 percent of women have experienced domestic abuse at some point in their lives. This has severe and harmful consequences for woman as it can lead to physical, psychological, mental, and sexual health problems for victims [105, 109]. Evidence has shown that advocacy and counseling interventions combined with economic and social empowerment of women, participatory education, and improving law enforcement can reduce instances of domestic violence among intimate partners [109].

Within Arab countries, the prevalence of domestic abuse is even greater. Indeed, the United Nations estimates that at least 37 percent of Arab women have been victims of domestic abuse, with indicators that the number is likely higher [126]. However, less than 40 percent of Arab women ask for support or seek protections against their abuser [17, 126]. For those who do, they tend to rely on family and friends rather than official government organizations for help in mitigating the abuse. This is likely due to cultural norms and customs that privilege men over women, privacy

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within familial relations, and the lack of protective laws or the belief that protective-laws will not be enforced by police [145]. In Saudi Arabia, around 35 percent of women were reported to have experienced at least one type of domestic abuse in their lifetime [12, 104]. Further, abuse was only recently criminalized in Saudi Arabia (in 2013) and other MENA countries [38, 139], and a few official resources are available to aid women through domestic abuse situations in the country [145].

Within HCI, researchers have started to examine the role of technology in both supporting domestic abuse survivors and in exacerbating instances of domestic abuse. This work has found that technologies can provide economic and social support for and aid in the recovery of domestic abuse survivors, yet, technologies can also result in further harassment, stalking, and control [44, 56, 76, 87, 144]. However, little HCI research has investigated domestic abuse in non-Western contexts (notable exceptions include [5, 123, 124]) nor has it examined the resistance practices that women develop to address domestic abuse. In this paper, we expand the HCI research on domestic abuse by examining the agency and resistance practices of Saudi women towards domestic abuse and the role of technology in their agency and resistance practices. We found that leaving an abusive situation was not common for Saudi women. This was due to poor enforcement of laws, scarcity of services, and social stigma. Thus, resistance was rarely confrontational. Rather, it was either proactive, whereby women would build social capacity or resources for future abusive acts, or reactive, whereby they would search for ways to deter the abuse, such as contacting a family member to confront the abuser or remove them from the abusive situation.

In identifying the resistance practices of Saudi women towards domestic abuse, our research contributes an understanding of forms of abuse Saudi women face, how these types of abuse are impacted and amplified by sociocultural norms, and the ways Saudi women express their agency and resist against abuse in a high-context patriarchal society. We also contribute an understanding of the role of technology in these resistance practices. In doing so, we propose implications for designing for women's empowerment in similar sociocultural contexts.

2 BACKGROUND AND LITERATURE REVIEW

In this section, we provide background information on the Saudi context and Islamic feminism. Then we present a literature review that is broadly divided into two parts; the first part is on domestic abuse, and the second is on power, and agency, and resistance. We inspect the topic of domestic abuse by providing definitions and theoretical framing of domestic abuse from sociological and Islamic perspectives, then we look at HCI studies on domestic abuse. We follow by definitions of power, agency, and resistance, and conclude by viewing HCI work on resistance from micro and macro levels.

2.1 The Saudi Context

The Kingdom of Saudi Arabia (KSA) is one of several countries that make up the Middle East and North African (MENA) region. Countries within this area are partly defined by their Arab culture. While the Arab culture differs from region to region, even within the same country [68], it is broadly based on relational and collectivist values [16, 61]. Values such as harmony and group wellbeing are appreciated over individual achievement, and non-verbal communication over explicit spoken words. Decision-making is typically controlled by a central, authoritative figure (*e.g.*, patriarch of the family), history and tradition are highly regarded [122], strong boundaries exist between insiders and outsiders, and individual roles within the society are not typically questioned [61]. Like other countries in the MENA region, Saudi Arabia mostly consists of a tribal society made up of hundreds of tribes and subtribes [48]. KSA is religiously conservative, with Islam as the basis for both the official religion and the national legal system. A central tenant of Saudi culture is for men to act as protectors (or guardians) for the women in their family and for women to protect

their family honor by adhering to the social rules of virtue [19, 45, 68]. While initially intended as a socially positive relationship, the "male as protector" role became a hindrance to women when this cultural norm was solidified by the guardianship law, which now saw women beholden to men in nearly all aspects of their lives. Guardians are male relatives (*i.e.* father, husband, uncle, son) who are systematically assigned to their related females to provide protection by law [22]. A guardian is known as a "wali" or "wassi", which translates to custodian. Scholars claim such cultural and social changes happened due to an ultraconservative movement in the 1970's, known as *Sahwa* (*i.e.*, the awakening), which resulted in new laws and regulations that redefined cultural norms within the Kingdom [96]. While others see changes in gender relations in Saudi to be a product of capitalism and the intervention of American oil corporations [93]. While separating social and political events is difficult, both contemporaneous events likely impacted the current state of gendered social norms and laws [19, 131].

Domestic abuse is a serious issue in Saudi Arabia, where it is reported that around 35 percent of women in Saudi Arabia have experienced at least one type of violence in their lifetime [12, 104]. Researchers speculate that figures are likely to be scarce and not be completely accurate due to under-reporting [17]. Recently in 2013, the Saudi government introduced the Protection from Abuse Act, where abuse is defined as "the practice or threat of physical violence, sexual assault, emotional abuse, or neglect committed against a woman or child by a person who has the power to either of them, whether authority, responsibility, maintenance relationship, family relationship, or guardianship. Additionally, it is considered abuse if a person omits, neglects, or fails to fulfill the duties or obligations to provide the basic needs of any family member or dependent under law or religion." [21]. While this introduced bill addresses physical, emotional, and sexual domestic violence issues in the KSA, the bill does not address economic or social forms of domestic abuse, including rights to education, work, inheritance, and marriage [21].

In this paper, we describe how sociocultural and political norms have impacted Saudi women. Specifically, we examine cases of domestic violence, how they are perpetuated by these norms, and how women are resisting against domestic violence aided with technology.

2.2 Islamic Feminism

Feminist theory focuses on gender and systems of power and oppression. Early feminist theory was critiqued for not attending to issues related to class, race, nationality, or religion and thus, feminism evolved to fit different needs and contexts [57]. To fit our context of an Arab and Muslim population, we refer to feminism tailored to the region's needs and contexts.

Arab feminism is a term encompassing both Islamic and secular feminism within the MENA region [15, 78, 95]. Despite the common goal among these feminist sects of advancing women and minority's status, there relies a tension between secular feminism and Islamic feminism. The main dispute of secular feminists is their stance being against patriarchal systems while viewing Islam in itself as patriarchal [15, 95]. Whereas, Islamic feminists see Islam in itself to promote social justice and equity for women and men, however, viewing the orthodox interpretations of Islamic text and cultural praxis as the sources of patriarchal beliefs [95, 130, 134, 138, p.187-192]. Given that many of our participants were Muslim, we explain how key concepts within Islamic feminism foreground important issues within our empirical data and, later, use Islamic feminism to understand domestic abuse issues.

Islamic feminism is the study of gender, systems of power and oppression, and social movements working to create more equal rights and opportunities within Islamic contexts. The core of Islamic feminism is "a concept, attitude, and activism to revise gender roles from an Islamic perspective" [19]. Islamic feminism also became known as a new interpretation of Islam and gender, based

on *ijtihad*¹, where Islam is viewed as applicable to a feminist frame through reformation and reinterpretation [95] while using “feminist tools of textual critique to challenge the patriarchal elements in Islamic jurisprudence” [19]. In this way, Islamic feminism aims “to dismantle the authority in question by entering the realm of the sacred text and by providing an alternative reading and interpretation until the power of authority is shaken, challenged, and the paradigm is shifted.” [19]. Islamic feminism is to be distinguished from the Islamist’s project of ‘sharia law’ imposition [15], and often takes two main approaches: working within an orthodoxy to change the position of women in society, or working within the frame of Islam itself in the form of a hermeneutical approach to theological concepts and language [95, p.350-351]. Commonalities among these two approaches include drawing upon women’s rights from the Qur’an, where distinctions between men and women are framed as complementary rather than antagonistic [95]. A supportive claim of signifying women’s status in the Qur’an and Islam is that Qur’anic passages related to women as individuals, in the family, and as members of the community, exceed all other social issues mentioned in the Qur’an combined [137]. Mainly, Islamic feminists argue that women’s empowerment happens through continuous un-interpretation, meaning the unlearning of past gender-biased readings of Islamic text, through contesting misreadings of religious text and offering alternative new perspectives on the basis of justice and equity among genders within Islam itself, as opposed to advocating for abolishing Islamic law [27, 43, 130]. An example of successful Islamic feminist movements is the Iranian women movement, where they succeeded through “carving out equality on their own terms, in a language most effective to their context, while maintaining the Islamic ideals they love and with which they identify” [95]. Thereby demonstrating the value and validity of joining feminism and Islam to work together towards gender equality [40, 92, 95, 130].

When approaching social issues from a feminist viewpoint, we must be cautious of repeating the mistakes of colonial feminists, where racism, othering, and belittling underlies quests for justice [7, 10, 31, 121], while also being careful of falling into the trap of Oriental feminism which locates differences in an innate ahistorical cultural essence [7, 31, 92]. To avoid colonial feminists’ mistakes, a research focus on the region’s cultural, historical, and political developments and discursive and practical conditions behind actions will help designers avoid the same colonial feminist mistakes while making new interventions legible [10, 92]. To avoid Orientalism is to study and provide insight on appropriate interventions, since what is happening to people across the world is a product of long histories of interactions [10, 72]. Intervention goes hand in hand with design, thus, the HCI community must be wary of savior complexes by accepting differences and respecting the different choices people make while understanding why they make them (e.g., accepting different ideas of justice), their histories, and perspectives [5, 10, 32, 92, 138]. Also, by being vigilant about staying clear of the rhetoric of “saving people” where selective concerns may be chosen and serving political rather than humanitarian purposes. Approaches of people saving and cultural reductionism reinforce and depend on a sense of Western superiority [10, 93].

Non-Western contexts expand HCI literature to recognize and stand against cultural relativism, which deems complexities as cultural and thus do not require intervention [10, 92, 95], dismissive universality (e.g., Saudi women are oppressed in some laws but are better than others in maternity leave) [93], and cultural reductionism (e.g., Muslim women are oppressed because of their uncivilized social and religious rules, while the West is civilized and discrimination against is not systematic but rather interpersonal and racial) [93]. In this work, we use the lens of Islamic feminism to construct

¹ *Ijtihad* is “the technical term that refers to the process of independent reasoning that scholars, but also nonscholars, may choose when a legal precedent is not immediately clear and available” (cited in [19] from (Cooke 2001, p62) [40]) or “the production of social, legal and political frameworks through the interpretation of Islamic texts” [43, 95]

our theoretical framing and continue to follow the thread of Islamic feminism in our discussion and design implications.

2.3 Domestic Violence

Intimate partner violence (IPV) refers to abusive behaviors by an intimate partner, including physical violence, sexual violence, and psychological aggression, as a way to control the other individual [52, 142]. Physical violence includes hitting, slapping, shoving, grabbing, pinching, biting, denying a partner medical care, or forcing substance use; sexual violence includes coercing or attempting to coerce any sexual contact or behavior without consent, includes but not limited to, marital rape, forcing sex after physical violence has occurred, or treating one in a sexually demeaning manner; and, psychological aggression includes emotional and verbal abuse, including insults and attempts to scare, isolate, or control a person [52, 106]. Intimate partners are individuals with whom the victim has an emotional connection, sees regularly, and has ongoing physical or sexual intimacy. The victim and perpetrator are recognized in public as a couple and they have intimate familiarity of each other's lives [52]. Another category of violence is family violence, which is "non-sexual abuse by a family member [including] physical force, emotional or financial abuse or threats to hurt the respondent or someone close to them carried out by a family member other than a partner (father/mother, step-father/step-mother or other relative)" [51]. According to the United Nations for Gender Equality handbook, violence against women may also involve femicide, sexual violence by non-partners, sexual harassment, trafficking, sexual exploitation, and harmful traditional practices such as dowry-related violence, early marriage, female genital mutilation/cutting, crimes committed in the name of honor, female infanticide and prenatal sex selection and maltreatment of women [132].

In our study, we will refer to both definitions of IPV and family violence as domestic abuse (DA) and domestic violence (DV) interchangeably.

2.4 The Islamic Perspective on Domestic Abuse and Resistance

In this section we present several examples from Islamic history, texts, and rulings on the perspectives of domestic abuse and resistance.

Addressing issues from an Islamic perspective includes considering the various schools of thought and sects within Islam itself that may produce different views on a given topic. In each school's jurisprudence, primary sources and secondary sources are considered as Islamic sources of law. The primary sources are the *Qur'an*, the Islamic holy text, *Hadith*, a collection of the Prophet Muhammad's sayings, and the *Sunnah*, which describes practices by Prophet Muhammad, various Islamic leaders, and Islamic traditions [21, 66, 97]. The secondary sources may differ across sects, which include among others: *Qiyas* (analogical reasoning), *Ijma* (consensus), and the public interest [21, 97]. When interpreting and understanding Islamic text, religious scholars argue such texts ought to be analyzed as a whole because such teachings cannot be understood in isolation [8]. Thus, in the following, we present an Islamic feminist view on Qur'anic verses, Hadiths, and examples of Sunnah illustrating Islam's position on domestic abuse. Domestic abuse in Islam includes the husband's failure to provide financial support, inability to fulfill his wife's sexual needs, or any mistreatment even to the wife's family [49, 86, 97]. Furthermore, Islam allows an abused wife to claim compensation under *ta'zir* (discretionary corporal punishment) [1]. The Islamic ruling on domestic abuse is deduced from several Qur'anic verses. In the Qur'anic verse "... he created for you mates from among yourselves, so that you may dwell in tranquility with them, and He has put love and mercy between your (hearts)." ², a definition of marriage is presented as a partnership in emotional

²(Qur'an, 30:21)

well-being, mutual respect, and harmony [20, 46]. When marriage is impossible to continue, a whole chapter in the Qur'an is dedicated to the decency of divorce. In the verse "*When you divorce women, and they reach their prescribed term, then retain them in kindness and retain them not for injury*"³, Muslims are guided to graciously end the marriage with no harm [46]. Thus jurists, who are Islamic religious leaders, concluded that a physically or verbally abused woman is entitled to divorce from her husband [20, 26]—despite not often being applied in courts. While there are some unifying beliefs and rituals common among most Muslims, like most religions, there are diverse schools of thought that influence how domestic abuse is viewed [26]. Specifically, there is one verse known as the "chastisement passage" [20] that appears to permit husbands to scold their wives and is used by male scholars to promote the right of hitting wives [20, 26, 46]. In [20], the author explains its meaning thoroughly based on Islamic text and jurists' interpretations, concluding that the verse does not promote domestic violence [20]. Rather, it provides an anger management approach to be followed only in a case of well-grounded suspicion of the wife's adultery. The approach starts with admonishment and abandonment in bed then hitting as a last resort. However, jurists also concluded that the word hitting is restricted to touch the face, should not leave bruising or marks, and be as gentle as using a handkerchief [20, 24]. While other scholars interpret the Arabic word *daraba*, interpreted as hitting, to mean 'leaving' rather than violence [24]; meaning to seek reconciliation through taking time to reflect, with the specific purpose of restoring marital harmony [20, 24, 26]. In conclusion, the common thread among Qur'anic text on spousal relations revolves around respect, reconciliation, and justice [20, 24, 26, 97], however, there are outlying messages that are subject to a range of interpretations based on different schools of thought [20, 26, 46]. In the following hadiths, "*The most perfect believers are the best in conduct. And the best of you are those who are best to their wives*" and "*It is the generous (in character) who is good to women, and it is the wicked who insults them*" [46], prophet Muhammad discouraged abuse and blatantly critiqued abusers. In another instant, Muhammad was asked on the responsibility of husbands towards their wives, he responded: "*Give her food when you take food, clothe her when you clothe yourself, do not revile her face, and do not beat her.*"⁴ [11]. In his farewell pilgrimage, Muhammad stressed the importance of kindness towards women and "equated the violation of their marital rights to a breach of the couple's covenant with God" [97]. Furthermore, in traditions according to Prophet Muhammad's behavior, he was never reported to disrespect, insult, or aggressively treat his wives, women of his family, nor strangers [20, 46, 97]. More so, the concept of *darar* or harm is forbidden in Islamic law, as a result, domestic abuse is forbidden given its pertinence to harm. Thus, abusive behavior contradicts Islam's jurisprudence [97]. Through the previous examples from Islamic holy texts and their in-depth analysis demonstrate that the Qur'an forbids wife battery [20, 26, 97, 136], Muslim states and clerics use the same religious texts to incite discriminatory and abusive practices against women [27]. Thus, efforts to undo harmful interpretations through *ijtihad* particularly important for meaningful social change, and "even though a Qur'anic hermeneutics cannot by itself put an end to patriarchal, authoritarian, and undemocratic regimes and practices, it nonetheless remains crucial due to the existential relationship between how we understand texts and "how we think about and treat real women" [27]. In this paper, we emphasize the importance of using Islamic feminist theory in reinterpreting religious text to help counter domestic abuse on an ideological level, and as a result, societal level.

Resistance against injustice is supported in Islam. Here, we specifically point to several indicators of Islamic rulings and norms that show how resistance manifested in Islamic marital norms. In Islam, marriage is viewed as a contract between the sexes rather than a sacrament [34]. The

³(Qur'an, 2:231)

⁴(Sunan Abi Dawud 2143, Book 12, Hadith 98)

marital contract "solemnizes the physical connection between a man and woman, and serves as the foundation for their marriage" [24].

Islam holds its followers responsible for speaking out against injustice and doing what is possible to end forms of oppression⁵ [70], which aligns with Islamic feminist perspectives. Within Islamic marriage contracts, women are given the option to negotiate clauses to include in the marital contract, which is agreed on by the couple and signed before two witnesses [24]. If clauses are violated, she has the right to end the marriage contract through divorce. Thus, the Islamic marital contract can help protect women's rights [24, 34, 53]. Married women also have the right to divorce through *Khul'*, where provision for divorce is at the instance of the wife, requiring her to return her *mahr* (bridewealth or marital gift) [24, 34, 53]. Marital contracts encourage protecting one's rights and well-being, thus, scholars use them as evidence in support of resistance when the marital union becomes intolerable [24, 53]. Resistance as mediation and intervention in several occasions in Islamic history. Women often consulted or sought mediation from influential society members and leaders to resolve marital conflict. More so, Islamic scholars interpret a Qur'anic chapter as well as other verses as revealed to Muhammed exclusively to address women's needs [62], and *Hadiths* of Muhammed's sayings recalling stories of reconciliation and mediation among couples, signifying speaking against mistreatment and encouraging intervention seeking [62, 94]. Furthermore, protesting was not always done through a mediator, but also with women publicly expressing their stance through reason and by using religious text to support their reasoning [108]. Thus, mediation and intervention, protesting, and pointing out injustice is all within the norms of Islam and are rather emphasized and encouraged in religious texts [62, 94, 108].

Based on the Islamic perspectives objecting domestic abuse and validating resistance against injustice, we conclude that efforts to design for resistance and to undo harmful interpretations through *ijtihad* are particularly important for meaningful social change within our context. Because "even though a Qur'anic hermeneutics cannot by itself put an end to patriarchal, authoritarian, and undemocratic regimes and practices, it nonetheless remains crucial" due to the existential relationship between how we understand texts and "how we think about and treat real women" [27]. Throughout the paper, we emphasize the importance of using Islamic feminist theory in understanding and designing for resistance to help counter domestic abuse on an ideological, individual, and community level, and as a result, aiming towards broader social change.

2.5 Theoretical Perspectives on Domestic Violence

Within sociology, intimate partner violence has typically been framed as either an issue of gender or of family conflict. Those taking a feminist approach, see intimate partner violence as manifesting itself as the patriarchal domination of men over women [85, 116, 146]. These researchers view violence against women as an independent social phenomenon that differs from other forms of violence, with its own causes, correlates, and properties [116]. They argue that men who assault women are enacting cultural Western norms that privilege aggressive, male dominance, and female subordination. In this way, domestic violence from a feminist perspective can only be understood when gender and power are taken into account [146]. By contrast, the family violence perspective views intimate partner violence as an inevitable expression of family conflict, which can involve child, elder, and sibling abuse [85]. Family violence theorists largely support the view that women are equally as likely as men to use violence in intimate relationships, and therefore the feminist approach is too narrow in its perspective.

⁵(Qur'an, 5:8; 42:42-43)

Other researchers have attempted to provide an integrative framework of intimate partner violence, which considers aspects of both the feminist and family conflict perspectives [47, 67, 84]. Within this body of work, researchers have argued that common ground exists between the two dominant theories when looking at the causes and treatments of intimate partner violence – in particular the belief that sexism is a causal factor of this type of violence [67, 84].

Heise [67] proposes an integrated ecological theory of intimate partner violence, which synthesizes the body of existing literature to provide a multifactorial perspective that takes into account both gender and non-gender related factors of violence. While she acknowledges that gender is an essential component to understanding intimate partner violence, including issues of male dominance within the family and societal gender norms, non-gender related factors, such as an individual's history, personality, and cultural norms are equally important in providing a comprehensive picture of intimate partner violence.

Finally, Gelles and colleagues [42, 103, 114] have suggested that social exchange theory and social control theory may help explain why intimate partner violence occurs. They suggest that the rewards for behaving violently may be seen outweigh the cost associated with committing a violent act. This occurs when protective laws are not enforced and when societal perceptions of masculinity encourage such behavior, which is the case in Saudi Arabia [21].

In this study, we use the theoretical perspective of Heise [67] and Gelles and colleagues [42, 103, 114] to understand the factors of domestic violence in our sample according to the . These theoretical perspectives are appropriate for this research because they give a holistic view from a family conflict and a gender perspective. Using these theories will allow us to consider personal, relationship, community, societal levels to analyze our findings, and provide an understanding that is transferable to other Western and non-Western contexts.

2.6 HCI and Domestic Abuse

Domestic abuse (DA) is a wicked problem [39]; requiring sensitive and thoughtful design approaches [82]. DA is wicked for a myriad of reasons; its definition is disunited across disciplines, cultures, and laws. It is unique—its characteristics vary depending on its location, time, etc., and it is interconnected with other problems [36, 39, 69] such as cultural norms, personality disorders, policy, circumstances, and in our context, religious politicization [64].

The HCI community has started to focus on the role of technology in domestic abuse, both in terms of alleviating abuse [77] and exasperating it [44, 56, 76, 87, 144]. In terms of the former, systems have been proposed and designed to protect domestic violence survivors by alerting or connecting survivors with authorities, NGOs, lawyers, and hospitals [74, 77]. Other research has focused on photosharing as a way to support survivors by aiding a process of rebuilding and re-establishing relationships [112], and supporting domestic violence service providers through design [30].

HCI research has also found that technology often acts as a double-edged sword, providing moral support and accessibility to economic opportunities for victims of domestic abuse while simultaneously opening up the victim to greater vulnerability for stalking and harassment [44, 56, 76, 87, 144]. To address some of these concerns, research in this area has also focused on ways to design systems that balance privacy, usability, and accountability [37, 129], security [129], and agency [5, 127].

Currently, most HCI research that has focused on issues of domestic abuse have been focused in Western contexts. Notable exceptions include Bangladesh and Brazil [5, 123, 124]. In this study, we examine the role of technology in domestic abuse in Saudi Arabia. Critical differences between the Western context and the experiences of women in Saudi Arabia include a women's lack of economic independence [145], lack of an effective judiciary system [145], and the lack of effective

domestic abuse resources (e.g., shelters) [145]. We therefore expand the research in this area to examine how women in non-Western societies experience domestic abuse, how they resist against domestic abuse, and the role of technology in their resistance practices.

2.7 Agency, Resistance, and Power

In this subsection, we review the meaning of power in domestic abuse contexts, then we present resistance concepts in relation to power. Lastly, we present several perspectives on agency within domestic violence to help explain our participants' practices from a culturally sensitive point of view. By focusing on agency, we view our participants as active agents rather than passive victims accepting unbalanced cultural and systematic laws. Concepts are discussed from a poststructuralist feminist lens, which we found to fit our context and academic views.

Domestic abuse is often the consequence of unbalanced power relations within society. Such abuse occurs when responsive units (e.g., victims) are dependent on controlling units (e.g., abusers) [41]. Thus, power is often referred to as the imposition of one's own will, also called domination, on other people [141]. One form of domination is authority, which refers to the "absolute duty to obey, regardless of personal motives or interest" [141]. Subordinate enforce authority when they fail to challenge hegemonic powers or structures, such as religious doctrine, cultural norms, or tribal structures [141]. Patriarchalism is one of the three types of traditional authority, defined by Max Weber as, "the authority of the father, the husband, the senior of the house, the sib elder over the members of the household" [140]. Within domestic abuse cases, abusers use power to construct and maintain their status and influence while defining and regulating the status and actions of their victims [143]. Abusers' interaction with their partners and families construct and maintain power that reinforces their status and influence as head of the household; simultaneously, such actions define and regulate the status and actions of other household members. Forced isolation and emotional and economic abuse can make it extremely difficult for a victim to break free [143]. In order to break free, autonomy must be preserved, where the preconditions for autonomy is to have bodily integrity, freedom of movement, and freedom to form interpersonal connections with people other than the batterer [143]. Power is thus seen as a socialized and embodied phenomenon that shapes individuals' subjectivity and dispositions [117]. In this way, power is a social relation, rather than only a legal one focused hegemonic powers within society [117].

When examining violence, resistance refers to any mental or behavioral act that opposes any form of violence, oppression, or conditions that enable oppression [135]. Due to the bodily risks associated with direct confrontation, resistance is infrequently organized, open, or confrontational. Rather, resistance tends to be quiet, disguised, and aims to thwart forms of appropriation causing class domination, meaning, to subtly and slowly weaken forms of domination [120, 135]. Scott (1985, 1989) identifies several forms of subtle resistance, including: (1) ideological, which seeks to challenge dominant structures of justice and equity by working to redefine or change these structures; (2) routine, which showed an implicit unity and mutuality among the class of resisters, and (3) cautious, which is anonymous or indirect, however, is intended to cause harm or annoy the dominant. How the resistance happens depends on the situation's unique combination of dangers and opportunities [135]. In the context of domestic violence, Allen (2011) expands these factors to include the victim's perceptions of risk and the effectiveness of the resistance, energy, level of dissonance between her preferred identity—constructed by culture and personal and family experiences—and her situational experience, and, most importantly, the availability and effectiveness of external support and services [25]. In feminist literature, resistance is a contentious category [9, 32, 92, 121]. As it is known to be used by postcolonial feminists as a frame to "give voice" and inspire activism [32], however biased by romanticism, often resulted in weak analysis of structural inequalities that create, perpetuate, or benefit from oppressive situations. To overcome

this drawback, Abu-Lughod instead suggest to use resistance as a diagnostic of power relations and structures [9, p.42][32], while post-structuralist feminists view resistance to be interrelated to agency. In the following we discuss definitions of agency in relation to resistance and related concepts.

Agency is defined differently across various scholarship [31, 92]. In the 1970s, during the first wave of feminist Middle Eastern scholarship, scholars initially focused on locating women's agency—defined as “the capacity to realize one's own interests against the weight of custom, tradition, transcendental will, or other obstacles (whether individual or collective)” [92, p. 38][31, 32]. At the time, agency in feminist thought was related to liberal political theory, where liberal politics' underlying concept is freedom. Mostly, feminist thought drew on two types of liberty: negative freedom (*i.e.*, the absence of external obstacles to making one's own choices), and positive freedom (*i.e.*, the capacity to realize an autonomous will; through “universal reason” or “self-interest”, unburdened by tradition, customs, and transcendental will) [92, p.39].

The shift from viewing women as the patriarchy's submissive victims to locating women's agency in humanist scholarship gave a richer narrative, especially for Middle-Eastern women. Focusing on women's agency helped bring to front the absent voice of women, viewing women as active agents living in a complex setting. Nevertheless, this view was considered limited due to the concept of autonomy underlying this definition of agency, which drives acts of resistance when permissible [31, 32, 92]. Agency in light of liberal politics was viewed as problematic because the prior definition assumes the universal desire is to be free from relations of subordination (and male domination), requires resistance, and is central for liberal and progressive thought [92, p.38][32].

Poststructural feminist scholars have critiqued such problem framing views of agency. , because Specifically, agency is not just only about a person's capacity, but rather about how societal, economic, and political structures create and reinforce conditions that reinforceunderpin cultural norms, possibilities, and oppression around gender [31, 32, 92]. A prominent example is poststructural feminist scholars Judith Butler, a poststructural feminist scholar, used the lens of subjecthood [83, 108] using Foucault's concept of power and the subjectivity paradox to examine power dynamics related to locate the possibility of agency within structures of power [92].

Foucault's concept of power and the subjectivity paradox. Foucault's concept of power cannot be understood solely on the model of domination, as something imposed over others. Rather, power is a strategic relation of force that not only shapes existing subjects but also creates new ones. The subject, in Foucault's view does not come before power relations but is produced through them. According to these scholars, “there is no possibility of “undoing” social norms that is independent of the “doing” of norms; agency resides, therefore, within this productive reiterability”, meaning, that “the reiterative structure of norms not only serves to consolidate a particular regime of discourse/power but also provides the means for its destabilization” [92, p.46,47]. Building off of Michel Foucault and Judith Butler, Seba Mahmood extends the analysis on agency to include non-resisting shapes of agency [92, p.42][32]. Arguing that agency should be detached from goals of progressive politics, and the notion of self-realization should be separated from that of the autonomous will, and encouraging researchers to turn the criticism upon themselves and be open to learning dimensions of people's actions.

In our analysis, we follow the forms of resistance described by Scott (1985, 1989) and take into account the factors of resistance presented by Allen (2011) and Westlund (1999). Additionally, we adapt Butler's definition of agency with Mahmood's extended view of examining culturally and historically specific practical conditions. For example, rather than discarding women's choice to endure controlling behavior as submissive, we view her as an active agent making complicated decisions about her best interests since there is a high cost entailed with breaking away from an abuser. Specifically, in the KSA context, leaving an abuser imposes non-negligible detrimental risks

to the women, including possible loss of familial support and damage to the family's and tribe's reputation. Thus, agency must be understood in context while focusing on possible structural issues. Mahmood argues feminism has a "dual character as both an analytical and a politically prescriptive project", offering both a diagnosis of women's status and a prescription of how to fix it [92, p.39]. The frame of problem solving and offering fixes to social problems is familiar to the HCI community and has been faulted by several scholars [29, 89]. In our approach, we provide guidelines on how to design within this context of entangled political and cultural norms around abuse rather than attempt to demolish it [123]. Concurrently, we do not seek to Orientalize the experiences of our participants, rather, we focus on the practical conditions that make up their desires and ethics by emphasizing the significance of the historical and cultural context of Saudi Arabia.

2.8 HCI and Resistance

Resistance in HCI has largely focused on individuals' resistance towards technology adoption. Within this body of work, researchers have explored the reasons individuals either chose not to adopt social technology or chose to abandon it [35, 50, 111]. This research has found that individuals resist use of specific social technology because of concerns related to privacy, data misuse, productivity, addiction, and extreme pressure [35, 50]. Other researchers have suggested that non-use of Facebook could be seen as a performative mode of resistance whereby non-users gain empowerment by choosing not to consume and publicly display their buying preferences [111].

A more directly related topic to resistance is social justice. Scholars Dombrowski, Harmon, and Fox presented Social Justice-Oriented Interaction Design sensibilities to address challenges of "wicked" problems. A wicked problem is "a social or cultural problem that is difficult or impossible to solve for as many as four reasons: incomplete or contradictory knowledge, the number of people and opinions involved, the large economic burden, and the interconnected nature of these problems with other problems" [83]. Dombrowski *et al.* provided design strategies that involve six dimensions (*i.e.*, transformation, recognition, reciprocity, enablement, distribution, and accountability) and three commitments towards developing a social justice-oriented design practice (*i.e.*, commitment to conflict, reflexivity, and personal ethics and politics) [91]. Other researchers working in the realm of justice research are Lindtner, Bardzell, and Bardzell, who offered three inter-related analytical sensibilities to support political activism [89]. The role of technology in social justice resistance practices has increasingly been of great interest to HCI researchers. Within this body of work, researchers have examined how social media and storytelling applications have been used in social movements, such as the Arab Spring [63, 81, 110, 134], MeToo [113, 125], and BlackLivesMatter [65, 76, 102, 125, 133]. In terms of the Arab Spring, researchers have suggested that social media enabled individuals to nonviolently resist political opposition by sparking, organizing, and mobilizing offline social movements, particularly by urban youth [63]. In line with this, researchers have also examined how citizens adopt technology to be resilient during wartime [58]. They found that technology aids in resistance practices by enabling individuals to control their identity, create organizational memory, collaborate in travel, and locate alternative sources of information. Researchers of HCI4D have also studied the reasons individuals refuse to participate in social justice resistance activities, despite experiencing injustices. Hassan *et al.*, (2019) [102], for instance, found that Bangladeshi women resisted sharing their stories with the MeToo movement, despite being sexually harassed, because they deemed their participation as culturally inappropriate, they feared social resistance from voicing their opinions, and they did not believe their participation would result in any changes. Further, social justice and resistance was also examined in the context of work. HCI researchers have investigated how low wage workers deal with wage theft and have proposed design solutions to empower workers to address this theft [90]. While other researchers have

developed an activist system to enable workers to publicize and evaluate their relationships with employers in a crowdsourcing environment [88]. Efforts done in ICTD and HCI4D also expanded the view of gender violence and technology. Scholars have extensively studied countering public harassment through technology in the Global South [13, 33, 79, 118, 119, 123, 127]. Scholars Ahmed **et al.** conducted a year long study to understand and address sexual harassment and its implications in urban Bangladesh, and delivered and evaluated a platform to report, map, and share women's stories on harassment [13]. Karusala and Kumar examined the efficacy of a panic button provided by the Indian government to increase women's public safety [79], Blom **et al.** developed and tested a prototype informed by quantitative and qualitative data on pedestrian fears and behavioral strategies towards fear [33], and Sarosh **et al.** developed mobile applications to support women from low socioeconomic backgrounds when using public transportation in Pakistan [119]. Sambasivan **et al.** examined online abuse experiences, their consequences, and online coping practices using a feminist analysis [118]. Particularly relevant to our research is the study by Sultana **et al.** [123], which found that while Bangladeshi women wanted to overcome imposed cultural norms that impacted their autonomy, they rejected Western concepts of empowerment, forcing the designers to consider creative design solutions to aid the women's resistance practices. Design implications included empowering women within their societal structures, enabling situated actions by supporting relationships in place, and designing beyond the user to include people and systems that influence the user [123]. ICTD and HCI4D and other related work such as [98], who extended feminist theory to fit the other definitions of justice based on domestic violence and abortion, inform our work by providing culturally situated analyses of underrepresented populations. In this study, we build on the work of violence against women in the private sphere of a non-Western context and resistance in HCI, by examining how Saudi women use technology to exhibit agency and resist against domestic violence. In particular, we explore their practices used to minimize gender-imbalances, to regain their autonomy, increase their educational and economic opportunities and social participation, and maintain their wellbeing.

3 METHODS

Domestic violence is a sensitive topic and Islamic feminism, and feminism more generally, may be contentious topics [7, 10, 92]. As mentioned in Section 2.2, we took steps to avoid colonialism, Orientalism, cultural relativism [7, 10, 93, 95], and generally "othering" the population studied. We follow Abu-Lughod's strategy in textually representing our participant's experience by focusing on connections and interconnections between the community and the researcher [7]. The primary author identifies as a Muslim woman from Saudi Arabia, who lived almost two decades of her life in Saudi and almost equal amount of time in the US as a child and later as adult continuing her higher education. The majority of our participants were middle class women, which likely provided a different experience from women from other socioeconomic backgrounds. Nonetheless, our participants' experiences were diverse, and though we do not claim to generalize their experiences to all Saudi or Arab women, there are transferable aspects in their legal, cultural, and religious details.

Methods and approach: We conducted semi-structured interviews [75] with seventeen Saudi women on their domestic violence concerns. The interview invitation was not overt and rather general by mentioning (safety concerns in the home for Arab women) as the focus of the interview, rather than domestic abuse. We foreground safety concerns to broaden the experiences discussed, avoid boxing the definition of domestic abuse to physical abuse, and increase study participation. At the time of the study, the sociopolitical climate was charged around the guardianship topic, and may have resulted in lower participation. Indeed, at least two women showed suspicion and hesitated to participate. Participants were asked to share their experiences, or the experiences of someone

they know, to discuss how they navigated these concerns. Questions were formed gradually on domestic abuse scenarios, starting with economic abuse cases (e.g., hindering education and career opportunities), then asking about safety, fleeing abusive households, and physical abuse. Specifically, participants were asked about their experiences as women in the Arab world, their various domestic safety concerns and how they dealt with them, the role of technology in response to those concerns, and the aspirations they have for an ideal environment for women. The interviews allowed us to understand how Saudi women defined and viewed domestic violence, how they experienced domestic violence, their autonomy and resistance practices in response to domestic violence, and the role of technology in acts of agency and resistance.

Study participants Saudi women living either in Saudi Arabia or the United States. Given the location of the research team, we had better access to women in the United States, however, the majority of Saudis in the United States are temporary residents as students on governmental scholarships. Thus, we tried to avoid an anticipated homogeneity among the participants, and to also be aware of the underlying privilege they may have over others in the opportunity of studying or accompanying their husbands abroad. We explicitly recruited participants who resided in Saudi to include a broader set of experiences. Participants from the United States were recruited through a WhatsApp group for female-only members of a Saudi student association at a university in the Midwest of the United States. Snowball sampling [59] was then used to identify other Saudi women in the United States. Participants from Saudi Arabia were recruited through the first author's personal contacts and snowball sampling, and were invited to participate through email, Facebook, or WhatsApp. Ten participants lived in the United States and seven lived in Saudi Arabia. They ranged in age from 21 to 35 years, with a median of 29 years. To protect their identities, we did not collect full names or other identifying information. Interviews lasted between 24 and 107 minutes, with an average of 50 minutes per interview. Seven interviews were conducted face-to-face, one by instant voice messaging, and nine by video or audio calls. All interviews were audio-recorded in Arabic, English, or a combination of Arabic and English, and securely saved on the university server. Participants received a 20.00 USD international visa card for their participation in the study.

The data for the study were inductively and deductively analyzed and coded to generate initial themes around abuse, resistance, intervention, cultural practices, gender, and opposition. Further and iterative analysis focused on specific forms of abuse, resistance practices in response to the abuse, and technical tools used to support resistance practices. All interviews were transcribed in the original language with those conducted in Arabic translated to English. IRB approval was obtained prior to conducting the study.

Our study has a couple of limitations. Due to the sensitivity of the topic of domestic abuse, we had difficulty recruiting people from noticeably diverse socioeconomic backgrounds. Consequently, the women interviewed in our study were largely from well-educated, middle class families. It is possible, therefore, that our participants were from families that held progressive views on women, granting them more opportunities and protections than those from more conservative backgrounds. Additionally, none of our participants used social media or personally knew someone who used social media to publicly seek help from others.

Saudi Arabia is currently undergoing a series of reforms, some of which happened prior to data collection (*i.e.*, women's right to drive), while others happened following data collection (*i.e.*, changes to the guardianship law) [3]. These reforms could influence cultural norms within the country, which was reflected in the growing sense of optimism from our participants towards the future of Saudi Arabia for women. Notable changes that happened after we concluded data collection were made to Civil Status, Travel Document, and Labor laws. Specifically, non-married women have been removed from the definition of minors, allowing for women over 21 to obtain a passport and travel without a guardian's permission, and assume the role of head of the household when

Table 1. Participants' Demographics.

<i>Participant ID</i>	<i>Age</i>	<i>Occupation</i>	<i>Location</i>
<i>P1</i>	22	<i>Student</i>	<i>United States</i>
<i>P2</i>	35	<i>Student</i>	<i>United States</i>
<i>P3</i>	24	<i>Student</i>	<i>United States</i>
<i>P4</i>	21	<i>Student</i>	<i>United States</i>
<i>P5</i>	22	<i>Housewife</i>	<i>United States</i>
<i>P6</i>	32	<i>Housewife</i>	<i>Riyadh, KSA</i>
<i>P7</i>	23	<i>Operation Specialist</i>	<i>Riyadh, KSA</i>
<i>P8</i>	32	<i>Student</i>	<i>United States</i>
<i>P9</i>	25	<i>Housewife</i>	<i>United States</i>
<i>P10</i>	29	<i>Karate Trainer</i>	<i>Khobar/Riyadh, KSA</i>
<i>P11</i>	23	<i>Student</i>	<i>United States</i>
<i>P12</i>	29	<i>Housewife</i>	<i>Jeddah, KSA</i>
<i>P13</i>	30	<i>Anesthesiologist</i>	<i>Khobar/Bahrain, KSA</i>
<i>P14</i>	33	<i>Administrative Assistant</i>	<i>Riyadh, KSA</i>
<i>P15</i>	32	<i>Student</i>	<i>United States</i>
<i>P16</i>	30	<i>Administrator</i>	<i>Makkah, KSA</i>
<i>P17</i>	33	<i>Nurse Practitioner</i>	<i>United States</i>

separated or widowed [93]. Such reforms could change the situation for women in the country, providing them with greater autonomy and possibly impact our findings related to economic or social abuse.

4 FINDINGS

In this section, we first discuss how our participants described their abuse and how power relates to the abuse. Then, we discuss the agency practices undertaken by our participants in resisting or nudging the norms to combat or mitigate abuse. We then illustrate how our participants use technology to expand their agency and aid in their resistance.

4.1 Domestic abuse experiences

When we asked our participants how they defined domestic abuse in Saudi Arabia, our participants largely referred to physical and psychological abuse in its emotional and verbal forms. A few participants also mentioned belittling, extreme ordering, controlling, and negligence from a partner or parent as types of abuse. While our participants condemned oppositional acts (e.g., economic-social abuse, control) and framed them in our conversations as abusive behavior, most participants did not name such practices as domestic violence. This could be the result of normalization, where societal rules in Saudi Arabia have shaped the belief that these types of activities are considered normal or highly anticipated as part of day-to-day life for Saudi women [54, 55]. Alternatively, use of the term abuse could be viewed as disrespect towards their parents when describing opposition towards a daughter's choices, which is a violation of the Islamic value of honoring one's parents [6, 16]. In our dataset, definitions of domestic abuse varied and were fluid across participants on what was and not considered abuse. For example, at least two participants suggested that physical violence is not considered abuse unless the act leaves a physical mark, such as a bruise. Our participants did not have a universally shared definition of abuse, but rather

how our participants defined abuse was contingent upon their background, experiences, and social conditioning.

We identified three primary forms of domestic abuse as described by our participants: economic-social [21], psychological, and physical abuse. Shapes of economic-social abuse ranged from enforcing financial and social stipulations to prioritizing funding a son's education over a daughter's to depriving women of allowance, education, marriage options, divorce, health coverage, or employment. Several participants described how their or guardians they knew restricted women from obtaining economic stability either through pursuing an education or from obtaining employment. For example, one participant described how her husband would not allow her to accept any job offers, using excuses such as *"the salary is low"* or *"the manager is male and I don't want you to work with a man"* (P6, Riyadh, Saudi Arabia). In other cases, six of our participants shared experiences where women they knew were allowed to work but required to relinquish part or all of their earnings to their husbands or fathers. For instance, P5's close friend was allowed to work as a nurse but her husband would take her earnings and would *"only give her 300 SAR (less than \$100 USD)"* (P5, US). Alternatively, stipulations were placed on women if they were to work, for example, maintaining all household duties, following a specific dress-code, and not speaking to men in the workplace. As one participant shared about her sister:

"... he'd try to leave his work earlier than his working hours so he [could] go home and tell her that she's falling short and didn't cook him lunch" (P9, US).

To ensure that the women abides their demands, husbands would often threaten them with divorce or polygamy. By using economic-social abuse, guardians effectively limited women's opportunities for independence, resulting in their continued dependence on economic, social, and logistical support, making it difficult for women to break away from the cycle of abuse [143].

In terms of psychological abuse, our participants reported instances of belittling and doubt, coercive and controlling behavior, manipulation, extreme monitoring, negligence, and ostracism. In these cases, the guardian would use sustained, repetitive, and expressive behavior to impair the women's mental and emotional life [107]. For instance, one participant shared how her ex-husband would drag her into

"fights, anxiety, endless arguments, pressure, financial arguments in regards to raising the kids, questioning [her] motherhood abilities to raise [her] kids, questioning [her] behaviors, [her] relationships, [her] activities of daily living" (P17, US).

In extreme cases, women might be ostracized from their families for failing to abide by their family's will. For instance, P9 shared that her cousin was disowned by her family after marrying a man from a different religious sect. The justification for ostracizing the woman was out of their feelings of shame:

"they didn't want her because she made them lose face and brought them shame" (P9, US)

Such extreme measure can be linked to the weight and importance of social acceptance for the family and the concept of saving face [122]. Also, the act of disownment concretizes the traditional social role imposed on women as protectors of the family's honor and name in the community [19, 45, 68], which in the case of marrying outside of the family's religious sect (or other social boundaries such as tribe, wealth, and nationality) may be considered dishonorable.

Finally, while instances of physical abuse were only personally reported by two of our participants, nearly all participants shared stories about others who they knew have lived in physically abusive relationships. Our participants reported being burned, slapped, and strangled by their guardians. For example, one participant shared how she was slapped and strangled by her ex-husband:

“...he raised his hand.. he took me to the desert, strangled me until I lost consciousness ...” (P16, Makkah, Saudi Arabia).

She shared that her ex-husband had taken her 12-day old daughter away from her at one point, and that he had threatened her with a knife.

None of our participants recounted stories of sexual abuse. This could be attributed to the topic’s sensitivity—where discussing intimate topics is considered a taboo. Given that marital rape is not recognized by law [71], sexual abuse may not be viewed as abuse but rather as a husband’s right and marital responsibility. In KSA, a wife’s denial of her husband’s sexual desires is often viewed as a sin [100]. P9, however, recounted a story of reproductive coercion where her maternal aunt was coerced by her husband into baring additional children, despite the deleterious impact it could have on her health and already having six children. While P9’s aunt initially refused due to degenerative disc disease, she eventually gave in because her husband threatened to marry another woman. According to conservative religious doctrine, if a husband desires more children, he is allowed to remarry for that purpose [115].

Based on our definition of power as a socialized and embodied phenomenon of relational imbalance, our findings suggest that laws, religious understanding and values, and cultural norms that privilege male guardians and amplify abuse in Saudi Arabia. Within Saudi culture, respect for elders, maintaining the familial fabric, and honor and family reputation are highly regarded. As we illustrated above, this can often create opportunity for domestic abuse. For some Saudi women, such domestic abuse is unacceptable and they have developed different coping and resistive strategies to deal with or resist such abusive environments. In the next section, we describe how our participants exhibit agency and resist against domestic abuse, and how technology impacts such agency and resistance practices.

4.2 Resistance and Agency Practices

In this section, we describe our participant’s agency-related and resistive practices to address how they experienced abuse. In this context, agency refers to acts that shift, undo, or nudge social norms, which may or may not lead to resistance against “custom, tradition, transcendental will, or other collective or individual obstacles”. Here, resistance references any mental or behavioral act of questioning, condemning, coping, intervening, or ending forms of intimate abuse as previously defined in (Section 2.3). We consider the historical, religious, and cultural contexts, choices, and perspectives in which our participants practice agency and resistance. Resistance was rarely directly confrontational and typically follows a path, whereby women start with their family to seek out assistance from male family members or from socially high-ranked or with broader influence in society male acquaintances (*i.e.*, spoken well-of by their surrounding circles, educated, wise, or has personal or professional connections and, as a result, is influential in society). Further, resistance happened either proactively, whereby women would build social capacity with influential people or shore up resources in anticipation of future abusive incidents, or reactively, whereby women would seek out options to address abuse, such as involving the chieftains (*i.e.*, a leader of Bedouin tribes elected by tribal elders).

In the following, we describe three key resistance practices described by our participants: (1) *ideological resistance*, where women identify the abuse, (2) *sustained resistance*, where women resist while living with the abuse, and (3) *the point of rupture*, where women take more direct action to mitigate the abuse. For each set of resistance practices, we describe technology’s role in the resistance and in developing or hindering our participants’ agency practices.

4.2.1 Active Reflection and Ideological Resistance. Within traditional Arab culture, one such socially accepted belief is the position of women as subordinate to men [68]. Thus culturally, Saudi women

may not immediately recognize injustices against them by men as constituting abuse. Indeed, a few of our participants shared that within Saudi culture acts that do not leave physical marks, such as bruises, are not typically considered abuse. Thus, in some key cases, before Saudi women can resist abuse, they must first recognize behaviors as abuse through *active reflection* which helps women uncover what is happening, how to position themselves in the situation (e.g., should I end it or go through couple's therapy?), and how and where to proceed. Active reflection happens when a woman takes an external action(s) to help clarify the unease she experiences internally. Active reflection within abusive situations is difficult because of the normalized image of conflict in marriage as natural and religious understanding that life is cumbersome and a constant struggle that requires patience⁶, in addition to the generational traditions passed down on what makes a good wife. Here, we see how our participant struggled to break from the powerful influence of her upbringing's teachings:

"you need to comply with your husband and cook for your husband and do for your husband, and these became things that I started doing them unaware, they became in my head that if I want to be an ideal wife and the best and for my husband to love me ... so I started doing things unconsciously so I would please him, but then when I sit with myself and think I tell myself 'I shouldn't have done this, this was wrong ... it grew with me since I was young because I saw my mother do anything for the comfort of my father.'" (P9, US)

The teachings and behavioural modeling of her mother were embedded in her, even though she did not believe in those teachings anymore. Reflection does not come naturally and requires women to be active agents in deciding and continuing to resist the socially trained urges to revert to familial norms.

Here, our participant actively identified flawed information from clerics discussing topics concerning women:

"I learned not to trust those clerics. because the same guy who was on that same platform was saying one thing and then changed 180 degrees." (P15, US).

Active reflection also happens over time. As participants age, time and experiences informed their perspectives. Thus, our participants discussed with us having an internal compass towards what was unfair, even though they were grew up being taught differently and how they experienced transformative moments. For example, a participant explains how she felt about other women being mistreated even though she never learned it in her home nor at school:

"I went to school for 12 years and they'd never talk about rights. I feel that when I see opposing stories, when I see someone who was banned from going to school, after a few years what would she do with her life? what would she do? our God said 'I created you to do this and that', what will you do? stay at home?" (P1, US)

Another participant had a revelatory moment when approaching the age 30, where she reevaluated her life goals, discarding a happy marriage based on unbalanced compromise as one of them:

"I was reflecting, I had my three kids already, I was looking back, I couldn't find an achievement or something I wanted, you know! I found that I was deprived from studying, from continuing my education, deprived from working in a field I want even though I would've reached a good position ... this is my transforming and starting point for me ... I felt that at the age of 30 I should look back and see achievements and the future I want to get to, but I didn't find this nor that. That's hard! You know I got a shock! That's when I decided to learn how to draw, and glory be to God when I changed my perspective and came to settle down from the inside, when I didn't strive for appreciation from the

⁶(Qur'an, 90:4)

outside, I didn't wait for my husband to say or do, you know, I started separating emotionally. I settled psychologically. Then things started to come my way on their own" (P6, Riyadh, Saudi Arabia)

Such active reflection is necessary for ideological resistance. Ideological resistance occurs when individuals recognize that long held beliefs and customs within a society are no longer acceptable. Our participants shared stories of how they practiced reflection through relying on both weak and strong ties—strong ties being within a close circle of family and friends, and weak ties being formal ties outside of the strong ties circle [60]—to understand how men in their lives were being unjust or abusive. In particular, participants mentioned how close friends or trusted confidantes (e.g., therapists) helped them to reflect upon, identify, and validate actions as abusive, and decide on how to deal with the abusive situation. For instance, one participant shared how she first reached out to her friends for support and then to a psychiatrist for help in dealing with her abusive fiancé. She shared that the psychiatrist helped her to *"redirect the way I think, the little confidence I was left with, she built it back again"* (P13, Khobar, Saudi Arabia). Another participant relied on social media to seek out help from a well-respected psychiatrist, stating that

"...he was very helpful, and he answered my questions thoroughly" (P14, Riyadh, Saudi Arabia).

While another participant first sought advice from self-help books and then later saw a psychiatrist to work out how she was feeling emotionally about her abusive father:

"recently I decided to go to a therapist and because it's all about the perspective, about the whole thing, if you keep it in you, need to talk too, it's basically reframing your thoughts" (P8, Khobar, Saudi Arabia).

By reaching out to friends, councilors, and self-help books, these women worked to understand what was happening to them and to recognize that the acts of their guardians constituted abuse. This allowed them to move forward with their lives and make plans for how to deal with the abusive situation.

One participant used social media to help other women in their active reflection to identify abuse. P15, who was being trained in the social sciences in the United States, used Snapchat, an ephemeral social media predominately for sharing images or videos, to share her knowledge, self-improvement content, and personal advice with her followers. In the process, she came across many stories of abused women who were trying to understand their situation and sought advice on how to deal with an abusive family member or husband. She used Snapchat, over another social media platforms, because the privacy it afforded users, the ability for direct messaging including voice messaging, and the flashcard style, which allows users to easily skip through content. However, she found the ephemerality of the platform (i.e., content disappearing after 24 hours) to be a waste of her efforts. In their ideological resistance, women use information and communication technologies to reach out to others for assistance with their abusive situation. Communication was mainly preferred via private media, such as phone calls, email, social media, and text and instant messaging. They used these tools to contact both weak and strong ties.

4.2.2 Sustained Resistance. In our study, we found that the women had several key sustained resistance practices to diminish adverse impacts of ongoing or anticipated future abuse. We found two key types of sustained resistance: (1) *capacity building*, where women shore up relational, practical, and vocational resources, and financial resources, and (2) *path-finding*, where women find the best feasible path that satisfies her views within the surrounding environmental constraints (e.g., finances, logistics, social norms).

Underlying sustained resistance practices, the women assessed an action's feasibility or their own *preparedness*; through planning, negotiation, opportunity mining, and resilience building. Our participants described how they built resilience through self-development and motivational

activities, and self-learning new skills. They did so by getting assistance from their children, reading self-help books, and using tutorial websites. Also, persistence was clearly identified in sustained resistance. Preparedness meant locating the boundaries of allowed action not only based on one's own conviction, but also based on the views of the family, community, and society. The extent of expressed agency differs based on time (e.g., decisions may vary when the kids grow up), socioeconomic background of the woman, and the internalized social, religious, and cultural values. We will highlight preparedness practices in the following strategies of resistance.

(1) Path-finding: While some practices or interactions may be viewed as submissiveness to patriarchal orders, post-structuralist feminists may frame similar practices as a process of calculations, or what we referred to as preparedness in finding the most satisficing path. Here, our participants are working to satisfying to their world views and agency, while sufficiently intertwined within the tangible boundaries (e.g., finances, logistics) and intangible boundaries of their environments (e.g., social norms, familial values). Path-finding occurs when women assess possible positions, outcomes, trade-offs, etc., and make decisions about what to do even if it means the outcome is not exactly what they hoped for initially or ideally.

For example, one participant had a relative who husband forced her to either give up her job that she liked, or give up her salary for so husband could remain as "head of the household". After fruitless efforts to deter the husband, she preferred to gain the sense of accomplishment through continuing with her job over income loss:

"...then her husband came and demanded that her salary be deposited in his account. 'I'm the man of the family and your salary has to help me with the house expenses', 'I get your salary, and I give you your allowance' ... she had to give her husband what he wanted to be able to continue in her job... she wanted this job this career life and this feeling, even if the income wasn't hers, but the feeling of accomplishment and that she's accomplishing something in life." (P12, Jeddah, Saudi Arabia)

Another participant worked under her husband's stipulations that she must work at their children's school, even though she decided early in her life that she hated teaching, she agreed for the sense of achievement:

"I said fine, what's the profession that you're OK with. He said, 'look for a job in your kids school, meaning work in a school.' ... I want to leave the home and see the world and feel like I achieved something." (P6, Riyadh, Saudi Arabia)

Both women went through the preparedness process to find the most fit path for them, and resulted with certain needs being outweighed by the sense of gratification and achievement.

Path finding is not so direct or of a clear process, and depends upon circumstances. At times, women may practice acts of resistance, and depend on the outcome of that act, decide to reiterate. Occasionally visible outcomes from acts of agency may occur, encouraging the continuation of agency expressions within the relationship. This was seen with the same participant mentioned above (P6), who expressed seeing positive changes in the way her husband perceived and responded to her recent interests in art and job seeking. Both directly confrontational resistive acts and non-resisting acts alike can lead to change. In our data, non-resisting acts included patience, and following the societal norms of asking for permission from the husband in each step, and only pursuing what the husband, family, or society found to be acceptable by principle. This aligns with Judith Butler's view on undoing norms through reiterability [92, p.46,47], where agents take actions within societal norms with slight reiterations that can lead to both doing and undoing of social norms.

When outcomes are not positive, however, women resort to patience in hopes for the circumstances to change. A change in circumstance such as the death of a guardian, or marrying into or being assigned to a more sympathetic guardian. For example, one participant shared that her sister

was only able to secure a divorce from her physically abusive husband after their father's passing, stating that when she tried to seek his support in requesting for a divorce, he would tell her to

"like 20 years ago, my sister wanted to get a divorce and my father kept saying "go back to your husband's house, we don't have girls who get divorced ... even though she was going through physical violence ... the societal words are more important than the real emotional harm, people are really really attached to the habits, tradition, and culture more than wellbeing,... more than considering your emotions more than considering long term consequences ... she did [get a divorce] after my father dies, thank God." (P17, US).

The father saw his daughter's divorce, at the time, as socially stigmatizing. Here, the woman had to stay in the abusive relationship out of respect to her father, adhering to his fear of bringing disgrace to the family.

Patience has a religious connotation [92], as adhering to the religious concept of *Sabr* (patience). Patience is admired and praised in the Quran⁷, indicating God's promise to help those who are patient. Muslim women may endure the injustices in their marriage in hopes for its rewards in an eternal life.

At times, women found the most fit path by covertly challenging their guardians' demands or working the system. For example, P16 shared how her two cousins agreed to their brothers' insistence that they not interact with their male coworkers if they wanted to pursue careers in a mixed-sex environment. However, when in the mixed-environment away from their brothers' monitoring, they acted as they saw best and not according to their brothers. In another case, P10 reported knowing women who would work for employers who did not require a guardian's consent. Such scenario works in family homes where the father is not heavily present, typically has more than one wife, yet adamant about imposing certain rules.

The use of technology was subtle by our participants in path-finding. Here, technology's role included activities such as the internet and social networks in finding flexible jobs, maintaining their wellbeing through moral support, or building resilience to tolerate unfavorable outcomes or wait for a change of circumstances. Through preparedness, patience, and working the system, women resisted abuse by finding the path most fit to cope and boost their social participation.

(2) Capacity Building: Once a woman recognizes her situation as abusive, she may start identifying how to deal with the abuse, while actively shoring resources. Shoring resources includes: leveraging and building social capital (e.g., supportive family member), logistical, practical, and vocational resources (e.g., learning a new skill, collecting evidence), and financial resources (e.g., saving money).

For example, one participant coped with her husband's command not to pursue a career in order to bare, and largely solely, raise their children by learning new skills and keeping up with the job market to aid in her chances of finding opportunities when the kids grow older.

The first type of capacity building found is building social capital. Social capital leverage occurs when a woman involves a third party to attempt to resolve the abusive situation. Social capital includes strong social ties—referring to social connections within a close circle of family and friends—and weak ties—referring to acquaintances and formal relations [60] (e.g., influential members of the community, police).

In terms of strong tie leverage, our participants would seek help from or build alliances with close family members, neighbors, or friends. In particular, familial social capital greatly influenced women's choices. In cases where families actively sided with the abuser, women were often left with no choice but to tolerate their abusers; reinforcing cultural patriarchal norms. For instance, P5

⁷"O ye who believe! seek help with patient perseverance and prayer; for Allah is with those who patiently persevere." (Qur'an, 2:153)

shared a story of her brothers intervening to remove their sister from her abusive husband, where they fought with him and took her to the family home, only to withdraw when aggressively faced by the husband:

"he'd come after her to their family home and yell and curse and all the neighbors would know, to the extent where fighting would occur with her brothers, and then he'd pull her back to their home and that's it, as if nothing happened."(P5)

By contrast, when families sided with the woman, she was more likely able to leave her abuser, knowing that she would have her family's support. Not only does family support provide a place and at times, financial support, it also mitigates societal pressure by using the family's support as a shield against shaming. This was found in the majority of our reported cases, with the exception of one woman who dreaded the label divorcee despite her family suggesting otherwise. For example, P12 shared a story of her relative who was able to separate from her husband after the woman's mother-in-law convinced her son to not allow his wife to pursue a career in another city. Backed by the support of her own family, the wife was able to separate from her husband, gain custody of their daughter, and pursue her career.

In seeking support or intervention, our participants preferred to rely on their known allies for assistance, rather than people or organizations that they did not know personally. In our study, we refer to an ally as a supportive *mahram* (i.e., unmarriageable male kin) who is already present in the woman's life (e.g., father, brother, uncle) or became her guardian later on (e.g., husband), we will refer to both as a *mahram ally*. Building relationships and forming alliances helps counter injustices from within an unjust community (Meyerson and Scully 1995). For instance, one participant shared she would rely on the assistance of her brother, rather than seek assistance from people who are not family:

"...I would always contact my brother [...] He'd go to talk to my father. A brother always has your back, especially when he's an older brother" (P1, US).

This need for a *mahram* ally reflects the patriarchal nature of Saudi society. That is, a guardian is more likely to take advice seriously from another man, who he knows and respects, than from a female family member. Which is further reflected in the following statement by P1:

"when it gets serious, as I told you, a man is for a man, I believe that when a man discusses an issue with a woman, it's not like when he talks to a man, a woman is weak no matter what, if my father scolds me I might go to my room cry for two days, I wouldn't talk with rationality as much as with emotion, so what do I do? let a man talk to the men." (P1, US)

The phrase "men are for men" was echoed both literally and metaphorically by multiple participants. Participants also mentioned the importance of the *mahram* ally being of a certain age in comparison to the abuser. For instance, an ally of the same age or older than a woman's husband will be taken more seriously by the husband than someone who is younger. Our participants also shared that strong ties (i.e., *someone known to the abuser*) were more effective in securing a resolution to the abuse than weak ties, such as a psychiatrist. For instance, P17 shared that while she sought advice from a therapist, her therapist was unable to effectively make the abuse stop. Rather, she had to rely on the help of her brother to end the abuse:

"Although I went to my therapist, who was a female, she helped me a lot, but we couldn't, the therapist and I, could not avoid, change, or alter the verbal violence that I was experiencing, only my brother did" (P17).

Given the importance of a *mahram* ally in supporting, negotiating for, and fighting on behalf a woman, the loss of a supportive ally could have a detrimental effect on a woman's future. This is

particularly the case when a woman loses a supportive guardian. For instance, P7 shared how her life drastically changed after the passing of her father. As dictated by Saudi law, guardianship is passed to another male relative in cases of decease. For P7, the newly assigned "wali" or custodian was her older half-brother. Here, we see how her half-brother physically abused her to force her to relinquish her inheritance:

"at the time, my half-brother and my mother wanted me to sign papers to give up my inheritance from my father, I did not approve. So before I went back [to Saudi] there were conflicts and such, but when I went they said we don't want anything, just come let us see you, come home let us see you, and I went, he burnt my hair, and cut it off" (P7)

In rare cases, our participants reported that they had a related female ally who had influence over their guardian. For instance, P9 shared that her maternal aunt was able to successfully convince her father to let her study abroad, while P8 reported that her aunt was able to influence her father to allow her now mother to marry a non-Saudi man.

When leveraging weak ties, our participants did not find seeking help from the judicial system or other organizations to be a feasible option. They expressed distrust in police and feared the whiplash of commonly dismissing cases of abuse on the basis of being private family issues. Another risk is if the case caught the community's attention, women feared the scandal and being accused of going against the family unit, resulting in bringing shame to the family's reputation. Further, our participants discussed how the abuser might turn against the woman by using *Wasta*—"loosely translates into nepotism, 'clout' or 'who you know'" [28]—, meaning leveraging personal connections to have the case withdrawn, most likely resulting in abuse amplification. Participants also commented on the subjectivity of the Saudi judicial system and how rulings are often influenced by cultural norms of victim-blaming, sexism, or religious beliefs used to deter women from asking for a divorce (e.g., using a weak *hadeeth*: "Of all the lawful acts the most detestable to Allah is divorce" to support their ruling against divorce).

There are, however, cases where women sought assistance from public figures and services. Typically, a cleric is contacted to discuss marital problems, as mentioned by P9 & P12. For example, P12 spoke of neighborhood family centers that offer free consultation and reconciliation for married couples. However, this was only mentioned by one participant and additional research could be done to verify if such services are actually used.

As seen in this section, women infrequently use weak ties for social capacity building. Indeed, there was only two instances in our dataset where participants mentioned the role of clerics in providing support for women in abusive situations. A strong distrust in the Saudi judicial system means that women infrequently used such services to bring charges against an abuser. This corresponds with the findings of the United Nations that less than 40 percent of Arab women seek protections against their abuser [126]. Rather, women put reliance on their strong ties, *mahram* allies, for support in mitigating abuse as these individuals tend to have a stronger affect on an abusive guardian.

The second type of capacity is building financial capacity, where women save money to use in coping or deterring the abuse. Our participants reported saving money for education, housing, and travel. One participant reported her friend's struggle with a physically abusive father. She tried to deter his abusive behaviour through building financial capacity:

"...she saved a big amount of money because she's a student in high school and worked at the same time and would save all her money. She rented an apartment and stayed there with her mother, stayed for months there..." (P4, US)

The woman's persistence and preparedness allowed her to protect herself and mother from her father's abuse.

Here our participants explain how regardless of her husband's constant rejection towards her requests, she persisted and saved an amount for a drawing class she was very interested in:

"[my husband] used to refuse anything, I would tell him that I want to go and do, no no no. even workshops, no! ok why?... who's going to take you and bring you back?, I don't have money, etc. he'd close it for [me] from every way. For the drawing workshop, I saved up for it, and I told him he said no ... I was about to cry, he started interrogating, and I said it's only five days from 5-9pm ... I'll have lunch ready! ... if you'll be late, I'll leave it on the stove heated" (P6, Riyadh, KSA)

By saving for the class and negotiating ways to balance her responsibilities, our participant managed to expand her agency within the relationship (e.g., making it hard for the husband to use excuses to limit her), explore a new hobby, and improve her artistic skills.

Building financial capacity helped our participants temporarily stop the abuse, build their confidence, and increase their social participation.

The above example overlaps with the third type of capacity found, which is building logistical, practical, and vocational capacity. One participant headed to a hospital when she got the chance, after surviving a violent attack from her husband, and used the hospital report to support her case against the husband:

*"what made me get divorced is that he raised his hand, he took me to the desert, suffocated me until I lost consciousness! and at that time, the next day, I went — because when I was with him I surrendered and told him that "I'm with you" and everything, the next day I went to the hospital to get a report and at once went to the police and sued him, and it got up to the court of justice, but, *sigh* our great system" (P16, Makkah, Saudi Arabia).*

We see the interconnection of path-finding, where she had to fake her surrender and building logistical capacity. Also, the negative impression of the judicial system is implied.

Some participants also relied on professional social networking working platforms, such as LinkedIn, or their personal networks to find job opportunities, as described by Participant 17:

"one of my family members ... she had a job interview and her husband refused to take her to the job interview, he didn't want her to work, he wanted her to stay at home, she had job interviews and would try to access organizations and apply to job applications through LinkedIn, because she doesn't go out ... she has master's degree" (P17, US)

Our participants described how they built resilience through self-development activities, such as skill building, self-learning, and motivation-building. They did this by getting assistance from their children, reading self-help books, and using tutorial websites. For example, one participant described using the time her kids were asleep and husband was out to self-improve and explore new skills and hobbies:

"I'm an organized person ... they [my kids] go to bed early ... by 9pm they're asleep, I have an hour two for myself, [my husband] used to go out every day. So I began to draw, get in online workshops like self-improvement, I learned Italian during that time, you know! I started working on myself and focus on ME! what I want, what I want to do, what I want to achieve!" (P6, Riyadh, KSA)

Here she elaborates on how she felt God talking to her throughout the process, demonstrating that her resilience was also built on religious agency:

It's not necessary..if he's closing the doors in my face, it doesn't matter, I can do things in the home ... two months and then I got the job! it's as if Allah [God] is saying "work on yourself!"; "God does not change the condition of a people until they change", when I changed from the inside, my life changed!" (P6, Riyadh, KSA)

Her beliefs fed into her resilience, which was reflected on her attitude towards her husband's actions and her life, allowing for further growth.

We presented cases that show how social capital of strong ties such as supportive families or a *mahram* ally serve a fundamental role in a Saudi woman's ability to maintain a sense of autonomy and exhibit further agency, resist against abuse, and, in some cases, flee abusive situations. Without relational resources and economic wellbeing, Saudi women are often forced to remain in abusive relationships. The decease of a supportive guardian also has potentially detrimental consequences for a woman as she may be assigned an antagonistic guardian instead. We highlighted other types of capacity building and how path-finding is a constant process in resisting abuse on the long term. Next, we present the third and last key resistance practice.

4.2.3 The Point of Rupture. The point of rupture occurs when a victim actively starts engaging with her abuser to deal with the abuse. We identified three strategies used by our participants during this phase: (1) asking others for intervention, (2) using tacit knowledge to navigate the social and legal system, and (3) leaving the abuser. We describe each of these in detail next.

(1) Intervention: The first strategy resembles the social capital leverage described in the section 4.2.2, whereby women leverage their strong and weak social ties (e.g., family, neighbors, clerics). In this phase, it is specifically done to aid in their temporarily or permanent departure from their abuser. Our participants described seeking shelter with their relatives or neighbors, or involving weak ties, such as leaders from the community, to work out a truce where the woman would only return to her guardian when certain conditions are met, such as stopping the physical harm. For example, one participant shared a story of a woman who relied on the status and influence of a chieftain (i.e., a leader of Bedouin tribes elected by tribal elders⁸) to deter the actions of her physically abusive father (P4). The participant reported the woman told the chieftain that "[father's name, the son of so and so], who's my father, does this and that [to me]". The chieftain then spoke to her father about his behavior, resulting in him stopping the abuse for a period of time. While the abuse only stopped temporarily, it was the longest time the woman had gone without being abused by her father, thus illustrating the effect reputable men from a community can have on deterring abuse.

(2) Tacit Knowledge: The second strategy practiced by our participants was the use of tacit knowledge. In this context, tacit knowledge refers to concepts learned through immersion in the culture, connections made with people who have influence in society, and experiential knowledge gained from working in the field. Tacit knowledge was usually informal and not publicly recognized. In our data, this knowledge was passed to women from experts, resourceful individuals, and through communication technologies. For example, in terms of cultural immersion, participant 16 spoke of learning how to engage with a judge to help facilitate the process of leaving her abuser (P16). Whereas, in terms of building connections, participant 17 used her brother's connection to an airport employee (*Wasta*⁹) to ensure she arrived at her gate without any complications caused by her husband (i.e., being stopped at the airport for a potentially invalid travel permit). In terms of experiential knowledge, participant 17 relied on the knowledge of her therapist for insider information on how to work the legal system and gain resources to assist her in obtaining a divorce, stating:

"she had resources, she directed me to lawyers, she showed me how to navigate the system, how to do a procuration, how to ask for child support" (P17, US).

⁸Bedouin. Retrieved from <https://www.newworldencyclopedia.org/entry/Bedouin>

⁹"loosely translates into nepotism, 'clout' or 'who you know'"[28]

A few participants also relied on information and communication technologies (ICTs) to build, transfer, and learn tacit knowledge. Participant 17, for instance, learned of a mobile application that provided information on Saudi women's legal rights, while participant 7 received the contact information for free consultation services via WhatsApp, and participant 15 was helping transfer tacit knowledge through Snapchat.

(3) Leaving: The third strategy described by our participants was fleeing the situation either temporarily or permanently. A woman decides to leave an abusive environment temporarily to have a reprieve from the abuse or to work on resolving the situation. A common practice for women in Saudi is to stay at their families' home when faced with serious marital issues. For example, participant 6 stayed at her family home at the time when she was on the verge of divorce. She took the time to think of a number of terms that were delivered by a mediator (her brother) and needed to be addressed before agreeing to go back to her husband's house, which indicates approval. Also, participant 4 reported her friend staying with her relatives on multiple occasions, as well as renting an apartment for her and her mother, until her abusive father showed serious desire to stop the abuse.

In other cases, a woman may decide to leave the abusive situation permanently. For example, one participant, a newly mother, described how she escaped her abusive husband by sneaking out while he slept:

"I had fled the house because he did raise his hand ... I snuck out, put on my shoes and abaya (cloak) and took the house key I'd hid" (P16).

To help her escape, she relied on a mobile ride-sharing application (Careem), which she used to get to her mother's house. Access to the ride-sharing application was crucial to her escape as her father was deceased and she did not have any brothers who could remove her from the situation. The use of technology, such as private messaging platforms and mobile applications to aid in leaving the abuser were mentioned by other participants as well.

On rare occasions, we found cases in our dataset of women who chose to elope, seek asylum, or unlawfully leave the country, which often resulted in harsh consequences such as disownment, forced separation from their family members, or losing their scholarships.

Leaving an abusive relationship or environment was not a common occurrence for our participants. Cultural norms that privilege group harmony over individual happiness frequently deterred women from leaving an abusive situation as it viewed to be a threat or disruption to the social fabric of the family or community. What's more, shelters were almost unheard of and public resources (e.g., police centers, organizations) were seen as less reliable than social capital. Instead, a woman relies largely on her family's moral, financial, and logistical support. In the few instances where women in our study decided and were able to leave their abusers, they did so either temporarily or permanently, and at times, used technology to aid them in fleeing the situation. In the next section, we describe ways that technology could be designed to support Saudi women's resistance and agency practices in dealing with domestic violence. We suggest that technology should be designed *within* current norms and not against them; taking into consideration the sociocultural and legal norms within the society. In particular, we make recommendations for the design of technological interventions that aid in the three types of resistance: ideological resistance, sustained resistance, and rupture.

5 DISCUSSION

The significant challenges in countering domestic violence include its scope and interconnectedness with other problems. In our studied context, normalization of certain forms of male domination was prevalent [68]. The subjectification of gender inequality is embedded in school curricula, media

content, moral codes, and religious teachings [73, 99]. There was a vast difference in the way people perceived abuse; ranging from extreme monitoring as an abusive behavior, to only naming it abuse if it bruised, and at times, considering it part of the man's right to protect. Further, abuse in the Saudi context is enabled by tribalism [93], systematic gender discrimination [93, 131], and inflexible ultraconservative beliefs [18, 19] among other factors [93]. Another obstacle found in the Saudi context is the high cost of breaking away from the situation (*i.e.*, the scarcity of external and official resources supporting victims of domestic abuse), resulting in women relying largely on their family's support to counter the abuse. By examining the complex realities and acts of agency and resistance of Saudi women within those realities, we aim to present the HCI community with a contextual view of technology use and design considerations in a non-Western context. Design thinking towards wicked problems such as domestic abuse is not a straight forward task, nor is it all what we recommend. Rather, we encourage designers to focus on the cultural dimensions of the problem and consider the different facets of perspectives and historical developments, and being wary of savior complexes by accepting differences and respecting the different choices people make while understanding why they make them (*e.g.*, accepting different ideas of justice) [5, 10, 32, 92]. In following suit, our work contributes to the enrichment of HCI content on wicked problems in non-Western contexts.

We acknowledge the flawed ambition of fully tackling deep-rooted problems with technology, thus, we do not claim the eradication of domestic abuse through design. Rather, we provide design-oriented implications to facilitate existing practices of resistance and agency. Informing our design implications, are the work of Dombrowski *et al.* (2016), Sultana *et al.* (2018), and Islamic feminism combined. Specifically, we use social-justice oriented design approaches along four of the six dimensions introduced: designing for *transformation, recognition, reciprocity, and enablement* [91]. We adapt sensibilities suggested in [123] "to empower women within the structures of their society, instead of trying to destroy those structures" [123], and advocate for Islamic feminists' interpretations of religious text to support ideological change, agency, and resistance. The three lenses allow for a holistic approach aligned with the cultural and religious context of Saudi Arabia and similar contexts (*e.g.*, immigrants, other MENA countries). In our design implications we seek to offer support and resources while minimizing safety risks for individuals and collective bodies.

5.1 Designing for Ideological Resistance

A key finding from the ideological resistance section is that there is an emotional, intellectual, and cultural effort to be done by women to unlearn passed down beliefs and identify abuse. Currently, women are gaslit by society into complying with abuse as normal, however, it is not. Technology can be designed to help with this process of unlearning damaging perspectives and learning healthy social behaviors. To inform our implications for ideological resistance, we focus on designing for recognition—"identifying unjust practices, policies, laws, and other phenomena, as well as identifying those people who are most negatively impacted by such phenomenon" [91]. We are designing for recognition by examining unjust cultural and systematic practices imposed on women living in largely patriarchal societies and the domestic abuse phenomena amplified by these practices. Also, by recognizing the acts of agency and resistance involved, the practical conditions shaping their desires, and by advocating for nurturing women's existing resistance practices rather than developing new ones. In this section, we see HCI's role in supporting ideological resistance practice on an individual, family, and community level.

Currently, several mobile applications exist to address general issues of women's safety in the US and internationally [128]. Though they provide useful features such as educational content and alert services to trusted contacts, they are yet to be proven effective and are unfit in the Saudi context

because Western-based informative content often disconnects from the religious and cultural beliefs of Saudi communities. We advocate for building localized content suitable for the language (*i.e.*, Arabic), culture, and religion of the targeted population. For example, the mobile applications listed in [128] for intimate partner violence prevention and intervention were providing advice based off of practice-based evidence and resources mainly in the US and UK, and as a result, leaving out issues such as such economic-social abuse. The few dedicated applications in [128] for Arab countries were around street harassment safety and reporting.

For educational content, we envision extending existing websites and applications by creating a visual, audible, and textual repository of rights and responsibilities based on Islamic interpretations of Islamic texts promoting gender-equality. Content would be tailored towards individual and family awareness of domestic abuse. For individual awareness, topics would include abuse definitions and perspectives from an Islamic perspective, women's agency in marriage, and social participation. By shifting the focus from the inherited patriarchal interpretations of religious text to more gender-equal perspectives (as seen in [101]), we support building ideological resistance that aligns with our user's Islamic belief. For family level awareness, educational content would be around parenting advice that explicates religious concepts to ultimately mitigate generational cycles of abuse. For example, topics focused on women's rights in Islam, how to raise more confident girls and empathetic boys, how to teach both genders to be aware of acts of domination and how to deal with them at an early age, etc. Building the repository could be done through collaborations with organizations who are specialized in Islamic feminist reinterpretations (*e.g.*, PUAN [101]). The repository would also be beneficial for advocates and social influencers in supporting their efforts against domestic violence. Designing for the family and collective bodies can propagate change on a societal level.

Relying on Islamic feminist resources also builds a powerful stance for negotiating opposing opinions within the family or on a broader societal and state level. By speaking to a familiar logic (*i.e.*, on the basis of Islamic concepts rather than the conversation of universal human rights), it equalizes the conversation between opposing parties, while also eliminates potential suspensions of serving or falling prey for Westernized or outside agendas.

On a community level, we find providing a safe and resourceful storytelling virtual platform to be integral; similar to Hollaback!¹⁰ and Heartmob¹¹, however, allowing for anonymous story posting and interaction [13]. Anonymity is valuable in discussing sensitive cases, especially in a society and culture that highly values privacy. However, the down side to as mentioned by **Ahmed et al.**, is invisibility of the abuser as well. This was echoed by our participants, who asked recommended libelling through technology done by officials on behalf of the abuser, an option given to the survivor to make the abuser visible when needed. Such platform where local resources and suggestion are shared provides a space for active reflection through interacting with others who share similar experiences or who are knowledgeable about the topic. While also allowing for the building and organizing of collective action to occur [76] in a less visible space other than popular public social media (*e.g.*, Twitter), which may be of potential risk [4]. As a result, active reflection allows for abuse identification and providing moral and emotional support. Storytelling platforms may also help unpack the societal taboo around domestic abuse. By openly and collectively addressing the issue, cognitive and emotional positions transform, and ultimately, soften the social stigma and slowly abolish the fear of changing or leaving the abusive situation [76]. Supporting co-identification of abuse through a collective medium aligns with designing for reciprocity—"engendering more fully equitable relationships", and transformation—"a focus on the role that structural inequalities may

¹⁰Hollaback! Together We Have the Power to End Harassment. Retrieved from <https://www.ihollaback.org/>

¹¹End Online Harassment. Retrieved from <https://iheartmob.org/>

play in perpetuating social injustices." [91]. By starting a conversation that may evolve and will ultimately not only help minimize harmful consequences of abuse, but also alleviate the stigma surrounding it, and influence policy and contribute to social change

5.2 Designing for Sustained Resistance

In designing for resistance while living with the abuser, we follow the approach proposed by Sultana *et al.* (2018) to design "within the patriarchal system, even if we ultimately wish to subvert it" [123] by enabling proactive resistance, capacity building, and ways to work the system. First, we seek to support women before undergoing actual incidents of abuse through proactive resistance. We envision a system that encourages women to reflect and prepare a list of one-to-three *mahram* allies or potential guardians from her family; supported by justification on why each deserves to be her guardian. Legal guardian transfers through a strenuous process [145], it is possible. The system would help her negotiate a logistical plan to serve her in cases of emergency (e.g., the sudden perish of her current guardian) or if she ever decides to leave her abuser.

Second, we advocate designing for resilience—the ability of people to adapt to unexpected events or danger without entirely collapsing [80], and designing for enablement—by "facilitating and developing opportunities for people to fulfill their potential and to develop their own capacity" [91]. In the capacity building resistance strategy (section 4.2.2), we found when women continued to live with the abuser, they leveraged their social networks, learned skills, and saved money to sustain their income rather than relying on their guardian. Thus, we see value in micro-financial services for saving and investing money away from the abuser's reach, resources such as online classes and mentorship to build skills to gain future income. Lastly, we suggest designing to support ways to work the system through providing a local pool of resources; including flexible job postings and skill-building opportunities, such as offers not requiring a guardian's permission or from-home jobs and training with flexible hours. The system must also be securely built to account for issues of fraud, predators, (e.g., predatory employers), and policing and censorship by the abuser, his connections (*Wasta*), the tribe, or others community members who may disagree with the woman's practices.

5.3 Designing for Rupture

In designing for rupture, we facilitate the strategies found in the point of rupture resistance practices with the following implications: preparing for attacks, documenting the abuse, and leveraging local expertise and resources.

To prepare for times of physical attacks, we recommend providing safety information in easy steps (e.g., self-defense strategies), presented in visuals, footage, audio, and textual formats. Also, we suggest a responsive and quickly accessible alert service, allowing the user to reach one or many contacts in a preselected safe-list of allies. However, we warn against enabling authority alerts as previously designed in systems for harassment and domestic violence [14, 74, 77], due to the mistrust our participants expressed in the judicial system when dealing with domestic abuse; potentially causing backlash rather than protection.

Documenting the abuse for evidence is essential in any setting, and particularly so in our context; where victim-blaming is common and laws can be malleable. To document the abuse, we would enable easy-access to video, image, and audio recording. We envision concealing the appearance of applications or websites as a mobile game, fashion blog, etc (e.g., as with *AspireNews* [2]), concealing buttons for alerts and recording or activating them through gestures or combination of clicks, or embedding recording systems in jewelry or keychains. We also suggest a report-building feature; where files saved are easily exported to local legal document templates, with allotted fields for the user to fill in necessary information when filing a claim; this would back up the evidence

when contacting officials or weak and strong ties, and could be used to maintain the chain of abusive events. Thus, help support legal processes and minimize victim-blaming.

Lastly, to support expertise and resources, we expand resources to include national resources, and is created, validated, and reviewed by the people; this will act as a weak-tie list for women to leverage at the point of rupture. The list would include influential people within the community (e.g., chieftains, clerics), hotlines, and other endorsed accounts of parties who are willing to support or even bend the rules for women protection and support (e.g., consultants, lawyers, individuals, and support groups). The prior provides credibility by enabling crowdsourcing specifically in account verification, and sustainability by keeping an up-to-date pool of resources. One similar example found is a mobile application is called "Know your rights", created by a Saudi lawyer to help women be aware of their legal rights around common issues (e.g., divorce, alimony, and custody), local lawyers, general advice, among other resources [23]. It is free of charge, and provides short animated videos and simple written steps to sue, and answers over 150 frequently asked questions. We suggest extending such applications to account for tacit knowledge (e.g., local support groups, therapists, consultants), and enable interpersonal textual and audio chatting to give instant feedback from experts and meet the users where they are.

To design for collective action, we envision a shelter-sharing service by women and for women; a volunteer-based network that would allow for temporary shelter coordination in people's homes. The service is suggested to overcome the scarcity or lack of shelters available for abused women, and the issues associated with the available services (e.g., requiring a male relative to agree to their release before they may exit state facilities, who may in some cases be the abuser[145]), specifically for women who do not have family and/or financial support and need to instantly flee the location. We acknowledge there are risks accompanying such service for both the hostess and guest, specifically with abusers knowing their location, in addition to potential legal risks and ones associated with other service-sharing applications (e.g., Airbnb, Uber). Thus, such a system must be highly secure [129].

In designing for existing resistance and agency practices, we aim to empower women from within their societal structure by building on existing relational and environmental infrastructures.

6 CONCLUSION

In this study, we investigated Saudi women's understanding of and experience with domestic abuse as well as their agency and resistance practices in mitigating the abuse. We found that leaving an abusive situation was not common. Rather, Saudi women either build social capacity or resources for future abusive acts or search for ways to deter the abuse, such as contacting a family member to confront the abuser on their behalf or to remove them from the situation. Based on our findings, we propose design implications to empower women from within, by helping them to work within the existing sociocultural fabric of Saudi Arabia. In particular, we make recommendations for the design of technologies that support women's ideological resistance, sustained resistance, and the point of rupture. We discuss how our recommendations could transfer to other similar contexts.

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