

Testing the Relationship between Post Child Marriage Variables and a Girls' Education Level in Rural Pakistan

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Abstract

Education is among the most impacted factors negatively associated with child marriage (CM). Girl's education affects their well-being, home community, and shows effects at the country-level. For this study, child brides ($N=30$), living in a remote rural area of Pakistan where child marriage is part of the culture and religious traditions of the community, provided responses to a standardized survey protocol. Correlation and regression analyses of the data showed three variables explained the large majority of the variation in the respondents' education levels post child marriage ($R^2 = .869$, $F(4, 25) = 48.988$, $p < .001$). The variables tested aligned with the *Potential Indicators of Gender Inequality in Education, by Domain*. A child bride's perception of the legal age for marriage in Pakistan showed the main effect, while her level of responsibilities after marriage had a negative significant relationship with the dependent variable, Qualification/Certificate level at the time of the study. Finally, when the family members held the power of decision over a child bride's education, the mean value of the participants' education levels went up. A deep review of the literature provided insights into areas of family and community norms, Pakistan's educational context, and influences from institutions outside education. Vaughn's indicators of equitable practices for girls' education provided a frame to organize the review of the literature. The paper used a lens of honor cultures' to understand the social influences on the practice of child marriage. Recommendations and implications provide practical applications for next steps.

Keywords: child marriage, developing countries, honor cultures, female education, gender parity in education, adolescent female, currently married, child marriage

1. Introduction

The focus of this study was testing the factors that influence a girls' education post CM. The context was a rural locality in Pakistan where the practice of forced child marriage (CM) is commonplace and arranged marriages are the preferred method for finding spouses for children. Bruce and Lilian et al. (2015) reported a high association between the age at marriage and educational attainment. Clark (2004) stated that most countries have declared the legal minimum age of marriage to be 18-years. A girl's education is among the most impacted factors negatively associated with CM (Lilian, Nancy, Odundo, Akondo, & Ngaruiya, 2015). Forced CM has dramatic negative effects on the participating females' well-being and educational outcomes. For example, arranged marriages evidence many problems including family breakup, divorce, and suicide. The added responsibilities that come with CM can further interfere with and deprive the child bride of the basic right of earning an education, so necessary for successfully navigating the routine demands of the 21st Century (Jensen & Thornton, 2003). Additionally, child brides often become mothers at a very early age. The too young mothers have a higher risk of death in childbirth and incidences of illness in their children. Early motherhood is also a key factor in preventing girls' education through adolescence.

Every society develops various practices derived over time from local norms, customs, and traditions. One of these norms is marriage between members of a community. It is important to consider the appropriate age for marriage, since in many rural poor communities around the

world, for a variety of reasons well-intentioned parents compel their juvenile daughters to abandon their education and marry before the age of 18 years. A female may receive sanctions by her family for refusing to enter into an arranged marriage. In the extreme, a refusal may result in an honor killing (Malik & Hussain, 2014). An honor killing is an act of violence, usually murder, committed by a male family member against a female family member considered to have brought dishonor upon the family. Various causes of honor killings include selection of one's own life partner, deviation against cultural norms, traditions, and or participation in an illegitimate relationship. According to the United Nations (2007), honor killings are the cause of approximately 5,000 Pakistani women murdered each year in the name of family honor (FH) (Rahim, Jahangir, & Holden, 2016).

International, regional, and state specific conventions and laws seek to address the serious issue of CM by promoting age appropriate (18 years-of-age), free-will marriage agreements and "gender equality to empower women and girls" (Ferreira & Kamal, 2017, p. 287; Bruce & Clark, 2004). However, most developing countries' societal arrangements do not offer incentives to protect girls from CM (UNICEF, 2005). Additionally, poverty and socio-cultural norms, such as societal gender bias, play a "pivotal role in the lack of success to reach gender parity" in education at the country level (Delprato, Akyeampong, Sabates, & Hernandez-Fernandez, 2015, p. 42). In this regard, advocates and members of state agencies often seek to perform the crucial role of intervention to develop contexts that are safe for females. Some interventions include developing parents' trust in the benefits of sending daughters to school and increasing community perceptions of the value of the female.

The practice of CM occurs widely throughout Pakistan, estimated at 20% of marriages (UNICEF, 2005). The local Pashtun society community, where the study took place, was located in the rural mountains of Garam Chashma Upper Chitral, in the northeastern part of Pakistan. In the typical community, the Chitral population included about 50,000 residents in a mountainous region at an altitude of almost 8,389 feet. Visitors described the area as "...romantic, captivating and enchanting" (Chitral Today, 2018, para. 1). The isolation has ensured the continuation of centuries-old cultural and religious traditions, including arranging children's marriages. Arranged marriages are by mutual agreement between the parents without the permission of the couple (especially the girl). By performing this study, the researchers hoped to contribute reliable information useful to develop increased awareness about key factors to reduce the negative effects on females' education and well-being, and to develop environments that lift girls' attainments to be on a par with males. (Tichy, Becker, & Sisco, 2009).

1.1 Purpose

The purpose of this study was to test the relationship between CM variables identified in the literature and a girls' education level post CM, quantified as Qualification/Certification level attained at the time of this study. This research is a response to calls in the literature for empirical studies of CM factors influencing girls' educational attainment within the context where CM occurs (Girls Not Brides, 2017; p. 14). There are few studies exploring post-CM factors influencing a child bride's education level, especially from the viewpoint of the child

bride (Lilian et al., 2015). This study has important theoretical and practical implications to improve opportunities for females to complete their education. The authors hope to add to the research-based literature useful for practical applications to reduce risks associated with CM. The authors were motivated to perform the study because they believe improvements for their communities and country would result from changing practices related to CM. In conclusion, this study aimed to add to the literature on the topic of CM, its influence on girls' ($N=30$) education in Garam Chashma Upper Chitral, Pakistan, and to test the relationship between post CM factors and females' post-marriage education level, measured as Qualification attained at the time of data collection for this study.

1.2 Overarching Question

The following questions and hypotheses drove the design and data collection methods: “Is there a relationship between the post CM independent variables identified for testing in this study and a girl’s (child bride) level of education, as measured by Qualification level?” “Do the independent variables that show significant correlation explain changes in the mean value of participants’ education levels (DV)?”

Hypotheses for testing:

H_{01} = The independent variables selected for testing, and included under the domains of Family and Community Norms, Influence from Institutions outside Education, and Teaching and Learning Practices, will have no correlation with the dependent variable, Qualification level of child brides at the time of the study.

H_{02} = The independent variables selected for testing and included under the domains of Family and Community Norms, Influence from Institutions outside Education, and Teaching and Learning Practices, that show significant correlation, will have no significant effect in explaining variations in the dependent variable, Qualification level of child brides at the time of the study.

1.2 Definition of Terms

Following is a list of definitions of terms used in this paper.

Family unit – In Pakistan, the family structure developed from the predominant cultural religious system, Islam. Islam provides the basis for a deep traditional view of the family as a “divinely inspired institution, with marriage at its core... The family has a different plane of emphasis than individual-centered cultures...” (Dhami & Sheikh, 2000, p. 352).

Marriage – in the context of this study is considered to be the union of two families. According to the Islamic view, as practiced in Muslim cultures, marriage is “an extended structure...spanning three or more generations...providing stability, coherence, and physical and psychological support” (Dhami & Sheikh, 2000, p. 352).

Child marriage –marriage before the age of 18 years. Bruce and Clark (2004) stated that most countries have declared the legal minimum age of marriage to be 18-years. Some Islamic religious groups encourage marriage at an early age to ensure purity of the partners and easy

socialization of the female to duties in the husband's family household (Dhami & Sheikh, 2000, p. 352). In Pakistan, laws hold that the female's legal age for marriage is 16 years (Girls Not Brides, 2018a).

Gender equality – refers to equal treatment, as opposed to different but equivalent treatment (as in equity).

Gender equity - means fair treatment for women and men while taking into account their differing needs. For example, in developing countries tradition requires females remain separate from association with males in public settings as a means to minimize the risk of inappropriate relationships and to protect family honor. Therefore, separate school buildings for males and females are necessary. When the context is a consideration in determining what is fair, then this is termed “equity.” Equity is not generalizable for this reason.

Gender parity – is the “ratio of female to male measures within a given indicator... [A] GPI equal to [“1”] indicates parity between females and males. In general, a value less than [“1”] indicates a disparity in favour of boys and a value greater than [“1”] indicates a disparity in favour of girls” (UNESCO Institute of Statistics, 2018, para. 1 & 4). UNESCO identified specific factors that contribute to gender inequity on the Gender Parity Index. The first two items on the index are: “Percentage of population aged 20 to 24 married before age 18 and Percentage of women aged 20 to 24 who had a live birth before age 15 to 18” (p. 10).

Backlash learning crisis – Though UNESCO declared they had met the gender parity goals for 2014, though researchers noted that the educational attainment for both males and females declined during that time. Researchers drew evidence from the Demographic and Health Survey (DHS) data including 43 countries. This “backlash learning crisis” refers to the finding that the quality of education is lower and that “kids aren't learning” in spite of rising school attendance (Psaki, as cited in Samari, 2017, p. 5).

Sustainable Development Goals - The United Nations (2016) established Sustainable Development Goals. Goal 5 focused on “gender equality to empower women and girls.” To this end, the UN has planned to “monitor country level progress on the elimination of child marriage” (para. 5).

Family honor - is “a social reputation or measure of esteem, respect or prestige” (Kay, 2012, p. 79).

For this study, the researchers developed a framework from the literature around a model of family honor and aligned the variables tested with the key domains identified in the *2016 Global Education Monitoring Report* for gender equality in education (Vaughan et al., 2016, as cited in UNESCO, 2018, p. 10). The review of the literature sought to shed light on key psychological issues influencing the practice of CM as a means to protect family honor and group identity. The following section provide a discussion of the methods, results, analyses, conclusions, implications, and recommendations.

2. Literature Review

2.1 Contextual Factors Contributing to the Practice of Child Marriage

Contextual factors have strong influence on parents' decisions to arrange marriages for their under-legal-age daughters. Arranged marriages and taboos on sexual practices before marriage are rituals and practices used to produce solidarity and uphold the identity and purity of the group (Kay, 2012). Another reason many parents are desirous for CM is the younger the wife-to-be the easier to socialize her as a servant in the husband's family home (Khan, Lurhathaiopath, & Matsushita, 2017; Yolah, 2001). In countries affected by war, terrorism, and displacement, CM incidence increases dramatically (Lilian et al., 2015). Parents may feel they have no substitute to CM. Families find marriage a protection for the female (Blanc, 2001; Go, Johnson, Bentley, Sivaram, Srikrishnan, et al., 2003). In Pakistan, there have been targeted attacks on girls' schools raising parents' concerns over safety of their daughters (Muhammad Niqab, August 2018, personal communication). In Syria, CM increased almost 300% from 2011 to 2014 due to the incidents of war. The purpose of CM there was to protect girls' virginity, honor, family reputation, provide financial support for survival, and where applicable, to increase the likelihood of sponsorship to leave a refugee camp (Girls Not Brides, 2018b, para. 1). The following sections further describe the cultural traditions and ethical orientations of these communities. Included in the discussion is a description of the background of a typical Pashtun rural community. Islam is the predominant religion of the region (Bayisenge, 2010; Baumeister, 2013).

A review of the literature revealed key domains identified in the *2016 Global Education Monitoring Report* for gender equality in education (Vaughan et al., 2016, as cited in UNESCO, 2018, p. 10). This study used Vaughn's indicators of equitable practices for girls' education as a lens to organize the review of the literature and to organize by domain the independent variables tested. Table 1 provides a selective overview of the three domains.

Table 1. Study alignment with Potential Indicators of Gender Inequality in Education, by Domain

Variable Categories	Potential Indicators of Gender Equity in Education, by Domain
Outcome Variable	Females' educational opportunities and attainment*
Family and Community Norms	Marriage at or over the age of eighteen* Degree of females 'decision-making related to*: -Family planning -Earnings and household expenditures -Labor force and employment -Participation in leadership, political, and economic life
Influences from Institutions outside Education	Social institution promotes gender equity and equality* Whether the constitution contains at least one approach to gender equality Whether the country is a signatory of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) Social Institutions and Gender Index (SIGI)
Teaching and Learning Practices	Schools include gender equality topics in their curricula*

Note. *Aligns with variables tested in this study.

2.2 Family and Community Norms of Marriage

Throwing a glance on cultures across the globe, marriage is a prime occasion as a route into maturity. Ceremonies of marriages may vary but the general concept of marriage is similar across cultures and rests on the same values (Glaeser, 2014). A cultural ratification of the marriage arrangement is the hope and expectation that children will be born to married partners (Khan et al., 2017). Societies provide laws to protect those who marry and provide legality for children (Jensen & Thornton 2003). Therefore, marriage is a social contract intended to protect the individuals and families from social sanctions (Haviland, Prins, McBride, & Walrath, 2013). In rural communities of the type under study, families can endure psychological and economic problems for the spouses as well as their children if a marriage fails (Fortes, 1959).

The most preferred method for finding a spouse in Chit-rally and Pashtun societies located in rural areas of Pakistan is through parental arrangements; often involving parental coercion and social pressure on the children to agree to the marriage. Marriage is a union, not just between the couple, but also between two families. Arranged marriages promote the continuity of the social norms of the group. Therefore, finding a suitable marriage partner and ensuring the purity of the daughter for reproducing children is of utmost consideration. The communities demarcate marriages into two forms. Endogamy is the desired form where partners are of the same social group, cast, religious tradition, class, and race. When a partner's demographic factors differ, the term used is exogamy. In the effort to ensure endogamous relationships

among Pakistani Muslims, approximately 75% of couples are engaged in consanguineous relationships (marriage to close relatives), which practice is on the increase. Marriages arranged with close relatives confers a variety of benefits to the families, such as extensive knowledge of the marriage partner ensuring cultural and familial continuity. In areas where there is economic and cultural disruption, due to war, terrorism, or other causes, the search for appropriate social partners becomes limited driving up the practice of consanguinity (Dhami & Sheikh, 2000).

2.2.1 Islam Religion and Culture

Under Islam, the predominant religion of Pakistan, marriage is a compulsory social contract, a divine arrangement to provide “warmth, comfort, and protection and to beautify” (Dhami & Sheikh, 2000, p. 352). The concept of marital life is that a boy and girl will care of each other, give attention to each other in a way that is legitimate, real, pure, and live with peace and harmony. Islam declares conjugal life a means of emotional and sexual satisfaction. According to law, for the bond of the wedding to be valid, certain state affairs must occur; among these is the mutual agreement of the couple (Nasrullah, Muazzam, Bhutta, & Raj, 2014). Islam declares sex by mandatory marriage to be rape. Under these religious laws, religiously persuasive people and parents, who force children to marry against their will, are supporting sex crime (Khan et al., 2006; Yolach, 2001). However, “a recent series of rulings by the Council of Islamic Ideology, a constitutional body which gives Islamic legal advice to the Pakistani Government, declared that Pakistani laws prohibiting child marriage are un-Islamic” (Girls Not Brides, 2018, paras. 3-5 & 8; Lilian et al., 2015).

2.2.2 Family Honor and Child Marriage

This paper provides a model for understanding the concept of family honor (FH); developed from a review of the literature. The FH lens helps to understand the practice of CM and its effect on girls’ education in the developing country of Pakistan. FH, as a social construct, results from cultural differences in the foundations of moral judgment that influence a family’s traditional practices. Long held traditions of FH in rural communities seek to protect cultural purity, social identity, and female purity by using a hierarchal social structure based on social rank, age, and gender. These societies have a culturally embedded gender bias. The FH context helps to explain how the practice of CM serves the families in these areas and to explain variations in the educational outcomes and wellbeing of girls effected by the practice (Kay, 2012). This is consistent with Raj (2010), who reported, “...the primary contextual factor heightening risk for girl child marriage is gender inequity, often characteri[z]ed, at least in part, by lower access to education and employment opportunities for females relative to males” (p. 931).

The communities that practice CM are usually of low socioeconomic status, having lost, or never attained, sufficient resources to provide a protection against threats to living a full and robust life. Honor cultures predominate in eastern cultures with populations living in poor rural areas having little education and following traditional cultural practices, such as found in the context of this study. The practice of CM also exists throughout various contexts in the US and around the world based on similar value structures supported by social contexts similar to those

in developing countries (The Conversation, 2017, December 11, para. 4). Lilian, et al. (2015) reported CM is “habitual” in rural areas and among the poorest populations around the world (p. 72). Concepts of FH are also important to immigrant populations in westernized contexts. Figure 1 provides a model of FH as a lens to understand the practice of CM and the results on female education and well-being (Samari, 2017).

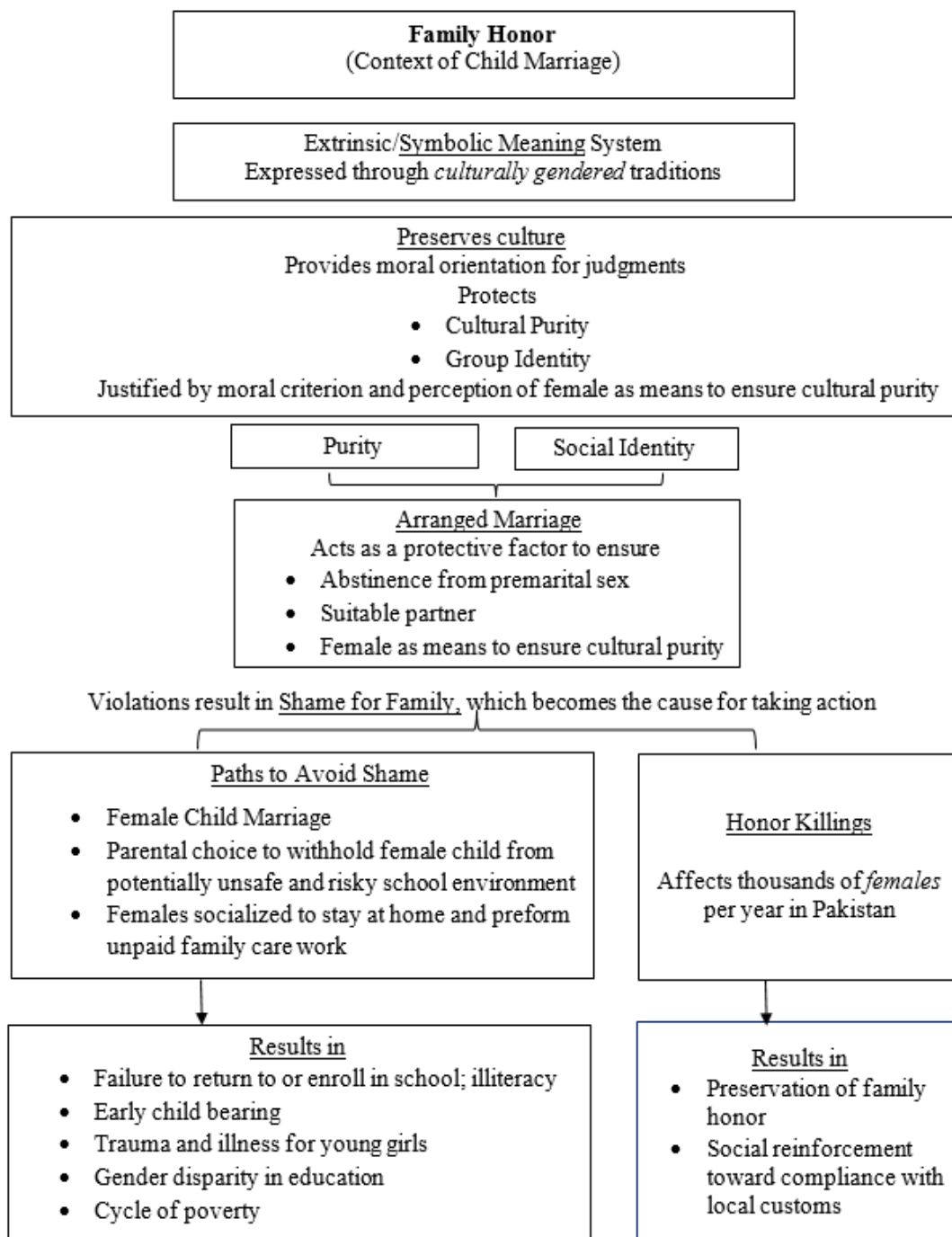


Figure 1. Model of family honor as a lens to understand the practice of CM and effects on gender disparity in education

World Vision UK (2016, in Ferreira & Kamal, 2017) explained, “Child marriage is rooted in gender inequality...” They identify a variety of “discriminatory social norms” such as poverty, lack of education, the belief that gender inequities protect girls because they “are at a higher risk of physical or sexual abuse” (p. 289). Honor practices can be viewed as psychological models that operate through the affective domain and “prime” individuals to aggressive action when insults to the self, or group identity, are perceived. In contrast, individuals from non-honor cultures have been shown to withdraw when insulted (Kay, 2012, p. 81). FH holds symbolic meaning to the individuals in the group, has collective moral significance, and is a powerful motivator for setting primary goals for action.

Anthropologists study the construct of “honor” in an effort to link individuals’ behaviors with their perceptions of the group and the group’s welfare. The gendered symbolism has a cultural bias of viewing females as the primary means to uphold the purity of the group. CM is a means to prevent teenagers from participating in pre-marital sex, illegitimate sex, and as a protection from rape in war torn environments (Yolah, 2001). Powerful, proactive means are available to family members to maintain honor and avoid social shame. The mechanism of perceiving and upholding the FH operates as follows: a perceived insult to self or family occurs, or a violation of the honor code, which reduces the self-esteem of the offended party resulting in a sense of shame. Affected individuals and families restore honor often through means of an aggressive action.

2.2.3 Theories of Moral Judgment

Researchers have suggested that moral reasoning in Eastern religious contexts may be distinct from reasoning in “Western, Educated, Industrialized, Rich, and Democratic (WEIRD)” contexts (Henrich, Heine, & Norenzayan, 2010, p. 1). The distinguishing features between the two groups are not country dependent but related to economic status, education level, rural versus urban setting, and continuity of cultural practices that develop a binding community identity. The ethical orientations of rural traditional cultures are community and divinity versus an ethic of independence in westernized groups. A comparison between these orientations follows. Figure 2 provides a Theories of Moral Judgement model comparing and contrasting rural traditional cultures with westernized groups.

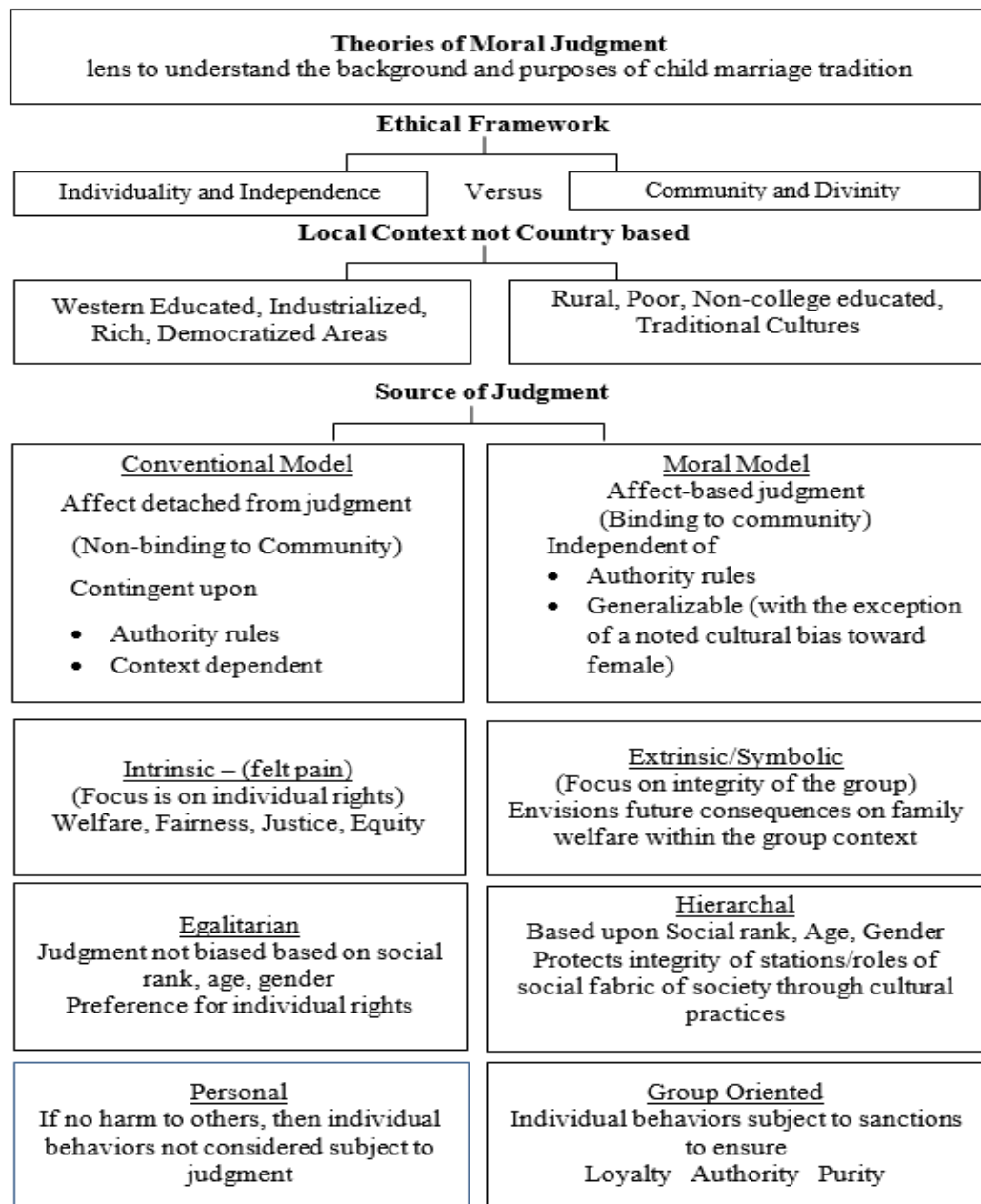


Figure 2. Compare and contrast of ethical orientations found in Eastern, rural, traditional cultures and Western (WEIRD) groups

Studying the processes of moral judgments that motivate individuals' actions is important to develop an understanding of the causes of individual behaviors in a group. For example, ethical concerns found in "interdependent, patriarchal, or duty-based cultures" prompt individuals to make "binding moral judgments" regarding matters that would be considered non-binding toward the group in westernized individualistic settings. Western settings value individual welfare, justice and rights over community and divinity. Honor societies, on the other hand,

“envison future consequences” to the welfare of the family, and or group, from offenses against a family or group’s identity. They judge an individual’s actions as moral violations as opposed to only breaking a social convention. This view of “2nd order moral consequences” prompts members of Honor societies to protect the group identity from the psychological harm these actions cause (Kay, 2012, p. 93).

Individuals in the WEIRD context highly value individuality and independence. During research experiments, participants demonstrated a detached affect from their judgment. Subjects in the WEIRD group more often used a conventional orientation to form the basis of their judgments. This means they focused on individual rights, welfare, fairness, justice, and equity. Research participants explained that as long as an individual does no harm to others, they felt that whatever an individual did was not subject to third party judgment. The WEIRD group judged the permissibility of actions based on rules (authority), context, and an egalitarian view of gender, age, and status. This ‘conventional orientation’ held much less influence over one’s power to act than the moral orientation.

The ethics of community and divinity are the foundations for affect-based moral judgments that are symbolic, have hierarchal structures based on rank, age, and gender, and include practices that seek to ensure the loyalty, authority, and social identity/purity of the group (Kay, 2012). For example, Lilian et al. (2015) explained that, in stratification systems, status is a key factor in how one is defined and treated - leaving those of low rank, such as young females, “vulnerable to social stigma, prejudice, and discrimination” (p. 76). Milgram (1974) also studied how one’s moral orientation affected one’s actions. He found that one’s morals transcended the rules and jurisdiction of social systems. In Honor societies, if an authority figure contradicts the symbolism needed to maintain the honor of the family and to avoid shame and ostracism from the group, individuals ignore the rules of the authority and uphold the tradition. For example, parents throughout impoverished areas around the world abide by local practices of CM and disregard state and national laws regarding legal age of marriage.

2.3 Education, Teaching, and Learning

In Pakistan, the literacy rate is one of the lowest in the world; even the lowest among other countries with relative levels of resources and similar social and fiscal situations according to the Pakistan Social and Living Standards Measurement (PSLM) (Pakistan Bureau of Statistics, 2017). Educationally, there exists a significant gender disparity gap in literacy rates between males (70%) and females (49%) (Government of Pakistan Ministry of Finance, 2015). Researchers calculated student returns on schooling achievement in Pakistan to be low compared to other developing countries, though higher for females than males. This compared favorably with Jamal’s (2015) research findings that investments made in female education increased sophisticated marginal revenue more than investments in male education. Connecting education with revenue, Qureshi (2012) summarized revenue increases with the growth in the level of education from primary to secondary, and from secondary to tertiary level, for both genders. Investments in elementary education in developing countries showed the highest economic returns (Masino & Niño-Zarazúa, 2016). Education had a much stronger proportionate impact on income as one progressed to higher levels. One’s education

level was significant because the investment, up to finishing tertiary education, showed the best return for higher levels of economic welfare of households. Khan et al., (2017) reported one year of additional schooling could produce an increase in the overall household earnings of a family given conditions where the education is of a quality that it increases literacy. In a study on CM, performed in the developing country of Kenya, results reported that keeping a girl in school by delaying her marriage one year increased her literacy 5.6%.

At the country level, the education system of Pakistan is fronting new challenges, seeking to develop at the same level as other developing countries in the region. Pakistan is steadfast to stimulate education by increasing its literacy rate, focusing on building teachers' capacity and making provisions for facilities in all educational institutes (Government of Pakistan Ministry of Finance, 2015). For this purpose, public expenses for education, as percentage to GDP, was valued at 2.2 % in FY 2015, as compared to 2.1 % of GDP in FY2014 - viewing an increase of 4.8 percent. However, some reports explained that budgeted funds for education are not used for improving education, but often reallocated to causes such as the military (Khan et al., 2017).

2.3.1 Parental Decisions to Withhold Girls from School

A variety of factors influence a parent's decision to send their daughter(s) to school, keep them at home, or marry them at an early age. One factor is the gender of the parent making the decisions (Ahiakpor, & Swaray, 2015). Cultural tradition is another. After marriage, tradition holds that females move in with the husband's family. Therefore, parents do not expect their daughters will contribute to the future welfare of the female's household. This practice influences their decision to prefer enrolling boys into school over girls when funds are limited. Even with national efforts to improve gender parity, there are huge disparities between urban versus rural areas in Pakistan. Researchers reported the quality of education in rural areas was dropping, resulting in students being unable to pass their tests in spite of school attendance. The lack of suitable facilities for females, poor infrastructure and transportation, lack of trained and qualified teachers, and safety issues in rural areas influence lower female enrollments. In a study performed in Khyber Pakhtunkhwa, Pakistan, researchers reported that parents of low socioeconomic status were unable to pay to educate their daughters in spite of free and compulsory education. Parents found it difficult to pay for exam fees, textbooks and supplies, uniforms, transportation to school, sports, and food for their children while they were away from home in school. Where schools are not suited to girls, parents described schooling as a "waste of time." Unsuitable situations included co-educational settings or all-girls schools with poor facilities, underqualified or limited availability of teachers especially in rural areas. Parents reported that bribes were required to enroll the females and keep them in good standing while in school (Khan et al., 2017). In these settings parents prefer to keep their daughters at home or marry them at an early age (Ferreira & Kamal, 2017; Lloyd, Mete, & Grant, 2007; Samari, 2017). Advocates seek interventions through the state to provide contexts that are safe for females and promote parents' trust in the benefits of sending their daughters to school and changing their participation in the practice of CM (Tichy et al., 2009).

2.3.2 Consequences of the Practice of Child Marriage on Girls' Education

CM is a burning social issue. Girls forced into too early marriage, with partners not of their choosing, experience a multitude of negative consequences. Conventional wisdom would hold that CM is wrong because of the harm against the girls both in denying their education and the trauma they experience from institutionalized rape and too early motherhood. There are real external dangers to females prompting families to use CM to protect their daughters. There are, however, also dangers to girls' whose social environment or household uses her as a symbol for maintaining FH. Messopir (1998, as cited in Lilian et al., 2015) wrote in her novel about her experiences of being forced into marriage at the age 13 years, "[CM] dehumanizes and traumatizes girls into servitude who often lapse into hopelessness" (p. 73).

Families from low socioeconomic status often resort to arranged marriages of their juvenile daughters with aged men. Similarly, in some countries the underprivileged parents are convinced to forge their daughter's marriage with a foreigner, who uses them for human trafficking in other parts of the world. These situations are similar to those reported by Girls Not Brides (2018) in African counties of Somalia and Uganda, where parents forced girls to marry men serving in the armed forces in the hopes of legitimizing both the girls' and parents' exit from a refugee camp.

CM places heavy responsibilities on a young girl's shoulders. Households confine child bride's to the home where they may experience financial problems without rights to use the family's resources (Jain & Kurz, 2007). When prevented from attending school, a girl hardly ever returns. The resulting loss of education prevents the development of skills that could have confirmed the girl's future economic chances to provide upkeep for her family and eliminate the cycle of poverty for her own children (UNICEF, 2005). It is evident that CM places a negative impact on the girls who become young mothers and on her children's health. Too early motherhood constructs barriers in the development of society and causes a persistent cycle of poverty to children born to young girls. The maternal mortality ratio is five times more for the age range 10 to 14 than for women between 20 to 24 years. At present, nearly one million toddlers of immature mothers die during pregnancy, delivery, or later due to some unexpected issues. When these babies are lucky enough to survive, they often experience low birth weights and consequences of ill health from undernourishment (Glaeser, 2014; Jain & Kurz, 2007; Kurz, 2013).

2.4 Influence from Institutions outside of Education

Analysts calculating the percentage of the population involved in CM in Pakistan must use estimation techniques as child marriages are rarely registered. Similarly, child births in Pakistan's rural parts are often unregistered making it difficult to know the exact age of a child at the time of marriage. Keeping in mind the suitable age for marriage, "Pakistan's Child Marriage Restraint Act (CMRA) 1929 sets the legal age for marriage to 16 for women and 18 for men. In May 2017, the National Assembly rejected the draft Child Marriage Restraint Act [which] would have increased the legal age for marriage from 16 to 18 nationwide" (Girls Not Brides, 2018, para. 3). As a country, Pakistan has stated reservations to the *Universal Declaration of Human Rights Article 16*, which refers to "discrimination and unequal treatment

of women and girls in marriage and family life.” This is “problematic because...child marriage can have a deleterious impact on a girl’s education” (UNESCO, 2018, p. 41). This reservation identifies Pakistan as non-signatory in the international agreement to prevent discrimination against women (Vaughan et al., 2016, as cited in UNESCO, 2018, p. 10). However, in February 2017, the Pakistani Parliament adopted an amendment to the Penal Code that would toughen punishment against parents participating in arranging CM. Offenders face a minimum of five years in prison and may serve up to 10 years. They also face a fine of up to one million rupees (\$9,547) (Girls Not Brides, 2018, paras. 3-5 & 8). Unfortunately, enforcement of these laws has been limited and families still practice CM in large areas throughout the country. Similarly, on the international scale, Vallillee (2015) found violations of laws prohibiting CM rarely resulted in prosecution.

2.4.1 Interventions

Researchers reported a variety of interventions in the literature to delay the practice of forced CM and to encourage an increase in females’ enrollment in schools. Large-scale efforts have begun to promote change in how society views girls in Pakistan culture. The government and advocacy agencies have begun modeling this change. For example, girls are now joining civil services while in the past they were restricted to teaching or nursing positions. UNICEF’s (2012) research on CM revealed a holistic approach to interventions. The approach combines prolonged community discussion (to develop collaborative decisions to abandon CM and development of women’s and girls’ potentials), strengthening of policies and services that support alternatives to CM, enacting economic supports, enhancing laws and policies to prevent CM, and delivering large scale communications campaigns against CM (ABCs for Action and Advocacy, 2012, pp. 13 & 14).

Most interventions reported in the literature included providing financial incentives to enable females to attend school, thus targeting a main cause of CM, which is low socioeconomic status of the families and communities. Most of these studies were temporary interventions lasting from two to five years and not sustainable. It is worthwhile to consider whether the cost of an intervention to reduce CM will return sufficient benefits in the short run if it is not sustainable (Kalamar, Lee-Rife, & Hindin, 2016). In other studies, researchers noticed the significant effects of interventions tested in isolation (such as provision of school uniforms) later showed insignificance in the face of other more powerful interventions (such as teacher training). The impact was also negligible when multiple goals were included in an intervention, such as including the goal to reduce HIV along with the goal to reduce CM (Masino, & Niño-Zarazúab, 2016). Panhwar, Abro, Khawaja, Siddiqui, and Farshad (2017) explained that to improve the social status of females in rural areas of Pakistan it is necessary to improve job opportunities for women.

Community participation interventions seek to improve school management, motivate students to learn, and raise the demand side of parents to value schooling for girls. These bottom-up methods use diffusion of new data to communities through appropriate “transmission channels” in the effort to raise awareness of the dangers of CM and the value of girls’ education. The goal is to alter discriminatory practices and change social norms towards girls. For

example, a variety of advocacy agencies and governments are using street theatre and local projects that engage children and the community in ways that are non-threatening and non-judgmental, hoping to change negative practices such as violence toward females and forced CM; viewed as a human rights violation (Evans, 2008, p. 55). “In a conservative society like Pakistan, don’t challenge religious sentiments straight away but share positive examples. E.g., most Pakistan rural communities interpret CM from religious teachings. So it is important to frame your message indirectly” (Girls Not Brides, 2017b, May 11, para. 2-3).

Top-down strategies seek to optimize government investments and consistent enforcement of targeted policies, reforms, and practices (Masino & Niño-Zarazúa, 2016, p. 54). Researchers suggested the use of new forms of mass media might be a means to develop changes in individual, family, community and societal awareness and to produce changes in norms related to CM (Bayisenge, 2010). Social interventions are useful that focus on changing local practices within the context, but these interventions lack empirical evidence on the long-term sustainability. Important additional considerations include the training of qualified female teachers within the community, thereby reducing the likelihood of teacher absences, increasing parent perceptions of school environment safety, and providing safe access. Lloyd et al., (2017) suggested that developing government schools in rural settings where none currently exists might increase girls’ enrollment in schools. However, the addition of private elementary schools in rural communities did not increase the likelihood of girls’ enrollment because private schools were most likely to open in areas where a public school already existed; private schools affected enrollments in government schools by taking transfers of students already enrolled in the government schools.

Finally, care must be taken when attempting interventions for girls in domestic situations of FH cultures to avoid the backlash of domestic violence that may occur when a girl’s autonomy is promoted. Sofi (2017) reported that almost 80 percent of girls married below the legal age of 18 years experienced domestic abuse including slapping, beatings, and threats that resulted in physical and or emotional health problems. Researchers noted ethical concerns related to CM study research designs. The context must be considered and the impact to girls from the design of the study. For example, female students in the control schools of one study that did not receive intervention funds were “chased away” and told to get money from the intervention program provided in the study research design. Another unintended consequence of research interventions was that parents were required to pay higher dowries when delaying their daughter’s marriage to an older age.

3. Methods

3.1 Study Design

This study used a quantitative research design and was part of the third author’s requirements toward completion of a masters’ degree in educational leadership. The qualifying Pakistani institution’s university faculty reviewed and approved the design of the study, including oversight of the data collection. The third researcher, who collected the data, had grown up in the same community where the study took place and spoke the same language as the participants.

The third author used a five-item demographic questionnaire and a nine-item, closed-ended, self-developed survey delivered face-to-face for data collection. The researcher advised participants of their human subject rights and the voluntary nature of their participation, and received university approval for the study. Researchers protected the confidentiality of the participants' identities by using codes or pseudonyms on the data collection documents. The lead author and second author received de-identified data for analyses and entered the data into SPSS v. 23.

The researchers kept the data separate from the participants' names and kept copious notes of the processes. The researchers confirmed the participant's responses to ensure they understood the questions and that the responses represented their intentions. Participants compared the findings to the literature to identify similarities and differences in the conclusions drawn from the data. Figure 3 shows the model used to test the variables predicted to influence variations in child bride's education level after marriage; data collected from the survey aligned with three key domains identified in the *2016 Global Education Monitoring Report for monitoring gender equality in education* (Vaughan et al., 2016, as cited in UNESCO, 2018, p. 10).

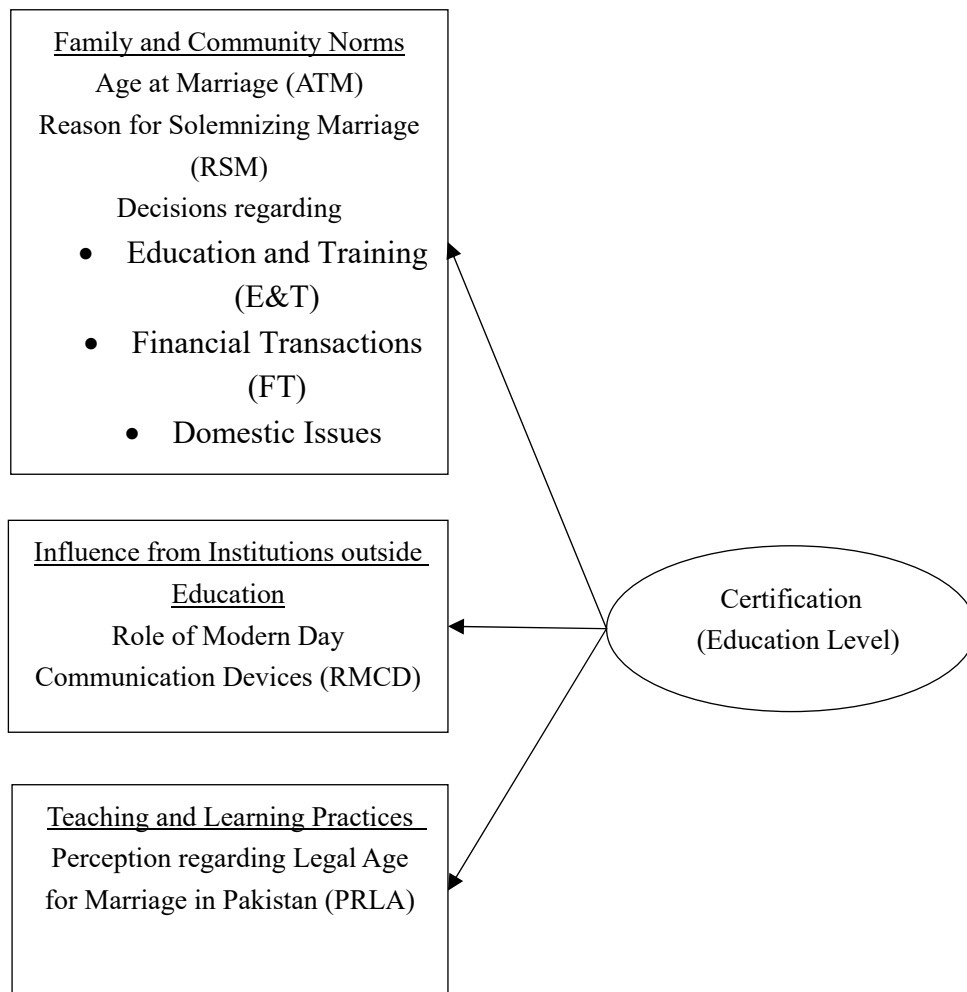


Figure 3. Model of independent variables, by key Domains, predicted to influence variations in a child bride's education level.

3.2 Participants

The target population for this study was females married before the age of 18 ($N=30$), living in a small rural community where child marriage was an accepted and enforced practice, and who were permitted to participate by taking a survey. The third researcher identified potential participants by using a convenience and purposeful sampling technique from a selection of individuals known to the third researcher. Snowball sampling extended the sample size.

3.3 Instruments

The following section provides descriptions of the demographic questionnaire and quantitative survey used to collect data to answer the research questions of this study.

3.3.1 Demographic Questionnaire

Three demographic questions were used to screen potential participants for inclusion in this study including, criteria of marital status, age at time of marriage, and gender. Two additional demographic questions asked the respondent's current age and education level at time of the study.

3.3.2 Quantitative Survey

Respondents provided self-reports to nine survey items delivered face-to-face using a paper pencil survey. The survey included a combination of categorical questions and Yes/No items. The researcher developed the survey items from the researchers' experience and a review of the literature. A panel of experts from civil society/NGO representatives and human rights activists reviewed the items for face validity. The questionnaire was pilot tested for usefulness of the instrument to collect data to answer the research questions and for clarity of the question items.

Survey items 3 – Age at time of marriage (ATM), 4 – Age of respondent at time of study (ATS), and 5 – Qualification level were categorical ratings from lowest to highest.

Survey items 7 – Perception regarding legal age for marriage (PRLA), 10 - Decisions regarding financial transactions (FT), 11 – Decisions regarding education and training (E&T), and 12 – Decisions regarding domestic issues (DRDI) were Likert-scale items rated on a continuum from lowest authority to highest. 1 = “Self,” being child bride with lowest hierarchical authority, 2 = “Husband,” next in hierarchical authority in the household, 3 = “Both,” wife receives voice through the husband, and 4 = “Family members,” e.g. parents, grandparents as most respected in hierarchy.

Categorical variables - The researcher created dummy variables for categorical variables before including the data in correlation analysis. Survey item 6 – Reason for solemnizing marriage (RSM) 0 = “Love Marriage” and 1 = “Parents' Will,” Survey item 8 - Role of modern communication devices in supporting CM (RMCD) 0 = “No” and 1 = “Yes,” and Survey item 9 – Responsibilities after marriage (RAM) 0 = “Reduced” and “As before” and 1 = “Increased.”

Survey items aligned with the *2016 Potential Indicators of Gender Inequality in Education* (Vaughan et al., 2016, as cited in UNESCO, 2018, p. 10). Table 1 provides a comparison of the survey items used in this study with the key Domains.

Table 1. Alignment of survey items with *Potential Indicators of Gender Inequality in Education, by Domain* (Vaughan et al., 2016 as cited in UNESCO, 2018, p. 10).

Variable Categories	Potential Indicators of Gender Equity in Education, by Domain	This Study - Items from the survey
Outcome Variable	Educational Attainment	Qualificaiton (Educational Level)
Family and Community Norms	Married eighteen and over	Item 3 - Age at time of Marriage (ATM)
	NA	Item 6 - Reason for Solemnizing Marriage (RSM)
	Degree of Decision-making related to: Family planning	Power of Decisions over:
	Earnings and household expenditures	Item 12 - Domestic Issues(DRDI)
	Labor force and employment	Item 9 - Responsibilities in the home after Marriage (RAM)
	Participation in leadership, political, and economic life	Item 10 - Financial Transactions (FT)
Institutions outside education	Social institution promotes gender equity and equality	Item 8 - Role of Modern Communication Device (RMCD)
	Whether the constitution contains at least one approach to gender equality	Discussed in Section 2.4 of the Literature Review in this paper
	Whether the country is a signatory of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)	
	Social Institutions and Gender Index (SIGI)	
Teaching and Learning Practices	Including gender equality topics in their curricula	Item 7 - Perceptions Regarding Legal Age of Marriage (PRLA)

4. Results

4.1 Data Analyses

Thirty completed surveys provided data for the quantitative analyses using SPSS v. 23 (IBM, 2015). Researchers tested the normality of the data using descriptive statistics and cross tabs to explore potential influences of the demographic data on the dependent variable. The predetermined indices for skewedness of the variables was less than 2.00 and kurtosis not greater than 7.00 (Fabrigar, Wenger, MacCallum, & Strahan, 1999). All data was within predetermined parameters. The reliability of the survey instrument was tested revealing a *KMO*- Value (0.806, $p < 0.001$) (Pallant, 2005). Empirical analyses yielded a Cronbach's alpha = 0.914, which is considered reliable for collecting data from which to draw conclusions regarding the sample (Numally, 1978). Hence, the analyses confirmed the data normal for use in parametric analysis. Analyses also included the calculation of Pearson correlations to identify relationships between the variables, selected for testing in this study, with CM. Elements that revealed significant correlations were regressed on the dependent variable - Qualification level of participants at the time of the study. Researchers held the assumption that school access, quality, distance, safety, etc. were approximately the same for all participants since they lived in the same geographic location, which bounded the context of the study. Following is a discussion of the results of the analysis.

4.2 Participant Demographics

Participants were child brides, defined for this study as married under the age of 18 years ($N=30$), identified through a purposeful and convenience sampling technique and extended through snowball sampling. Tables 2 and 3 provide the descriptive statistics for the participants by Qualification level.

Survey Items 4 and 5: Age of respondent at time of study and Qualification level. Figure 4 shows the relationship between participants' age at time of study and the mean of Qualification level.

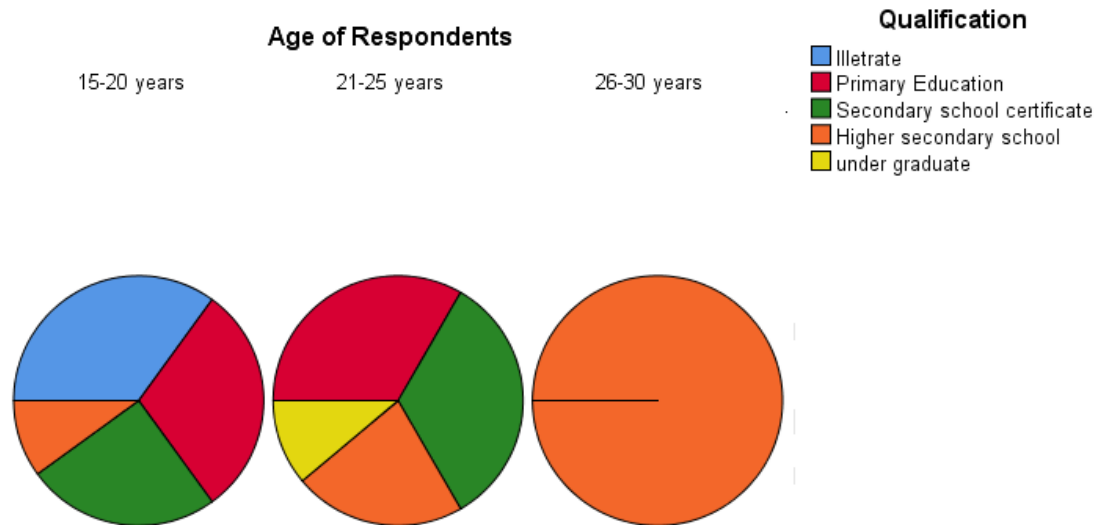


Figure 4. Relationship of participants' age at time of the study their Qualification level

Table 2. Age groups of participants at time of study and count by Qualification level

Age	Number	Percent (%)	Education level of the respondents by Certificate level				
			Illiterate	Primary	Secondary	Higher secondary	Under- graduate
<15	0	0	0	0	0	0	0
15-20	20	66.7	7	6	5	2	0
21-25	9	30.0	0	3	3	2	1
26-30	1	3.3	0	0	0	1	0
Total	30		7	9	8	5	1
		100 %	(23.3%)	(30%)	(26.7%)	(16.7%)	(3.3%)

Figure 5 shows a line graph of the relationship between the numbers of participants' by education level according to age at time of study. There is a clear positive linear relationship between the participant's age at the time of this study and the mean of their Qualification level as evidenced by education Certificate completed.

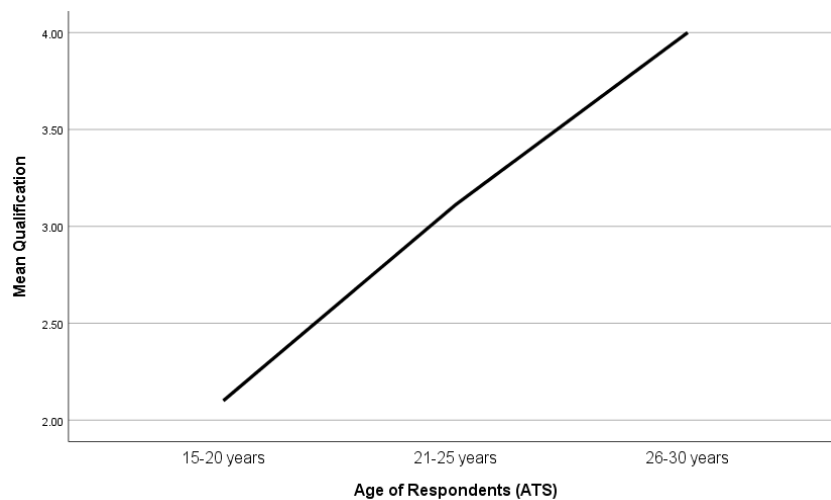


Figure 5. Mean of Certification level achieved by age group of respondents at time of study

Survey Item 3: Age at time of solemnizing marriage showed the greatest number of participants to be 17 years-of-age ($N=12$, 40%) at the time they solemnized their marriage, followed by 16 years ($N=9$, 30%), 15 years ($N=7$, 23%), and 13 years ($N=2$, 7%). The study does not represent this stratification by age as conforming to the trend in the general population. Figure 4 graph shows a positive relationship in mean Qualification level as the participant’s age increases up to 16 years, then declines for 17 years-of-age ATM. Figure 5, which shows the mean Certification level of participants by age group for RSM, expands on this result. The 17-year age group splits 5:7 between “Love” marriage and “Parents’ Will.” “Love” RSM shows a much lower mean Certification. Section 5.1 Item 6 provides further discussion of the interaction between mean Certification based upon ATM and RSM.

Table 3. Age of the respondents at the time of solemnizing marriage (said "I do") (by Qualification level).

Age at Marriage	at N	Percent (%)	Education level of the respondents				
			Illiterate	Primary	Secondary	Higher secondary	Under-graduate
13	2	7	2	0	0	0	0
14	0	0	0	0	0	0	0
15	7	23	0	6	1	0	0
16	9	30	0	3	4	2	0
17	12	40	5	0	3	3	1
Total	30		7	9	8	5	1
		100%	(23%)	(30%)	(27%)	(17%)	(3%)

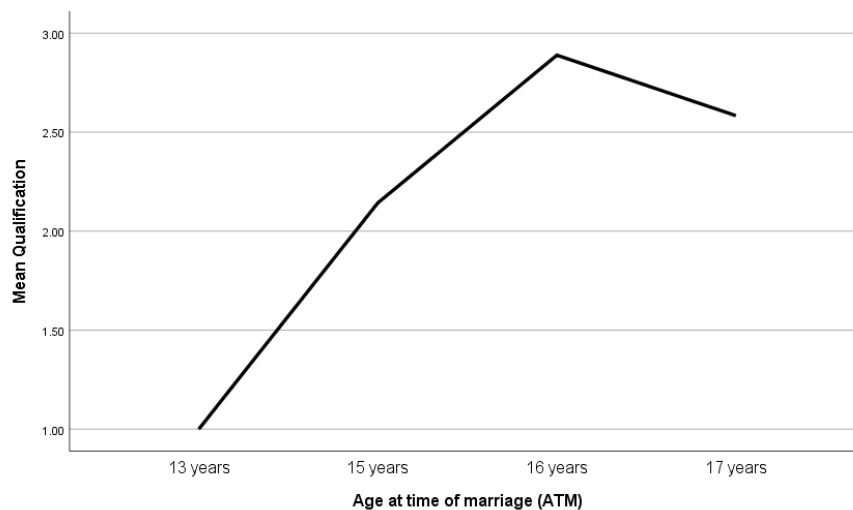


Figure 6. Graph of mean Qualification level achieved by age of participants at time of marriage

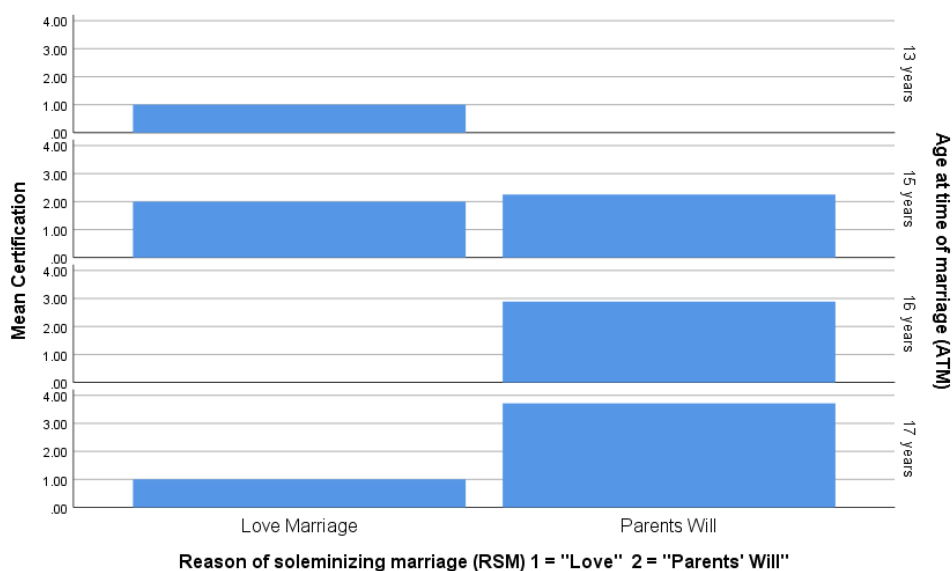


Figure 7. Chart of mean Certification level by age at time of marriage and reason for marrying early

4.3 Summary of the Data for Independent Variables

A summary of the data for each item on the survey follows. Tables 4 through 10 provide the results of the analyses of the participants' survey responses by Qualification level. Figures 8 through 14 provide data results of survey items and their relationship with the Qualification level of the participants.

Survey Item 6: Reason for solemnizing marriage. Two thirds of the participants ($N=20$) reported they married in obedience to their "Parents' Will." All participants who reported

marrying for “Love” ($N=10$, 30%) showed the lowest Qualification levels, either in the Illiterate or Primary Certification category. All 13-year-olds reported they married for “Love.” All 16-year-old girls reported they married for “Parents’ Will.” Girls aged 15 and 17 years showed splits (5:7 between “Love” and “Parents’ Will;” mean for participants’ Certification based upon “Love” marriage ($\mu \sim 1.3$) was much lower than for “Parents’ Will,” ($\mu \sim 3.1$).

Table 4. Reasons of solemnizing early marriage (by Qualification level).

Reason for Marrying	<i>N</i>	Percent (%)	Education level of the respondents				
			Illiterate	Primary	Secondary	Higher secondary	Under- graduate
Love marriage	10	33	7	3	0	0	0
Parents’ will	20	66	0	6	8	5	1
Relatives’ pressure	0		0	0	0	0	0
Total	30		7	9	8	5	1
		100%	(23%)	(30%)	(27%)	(17%)	(3%)

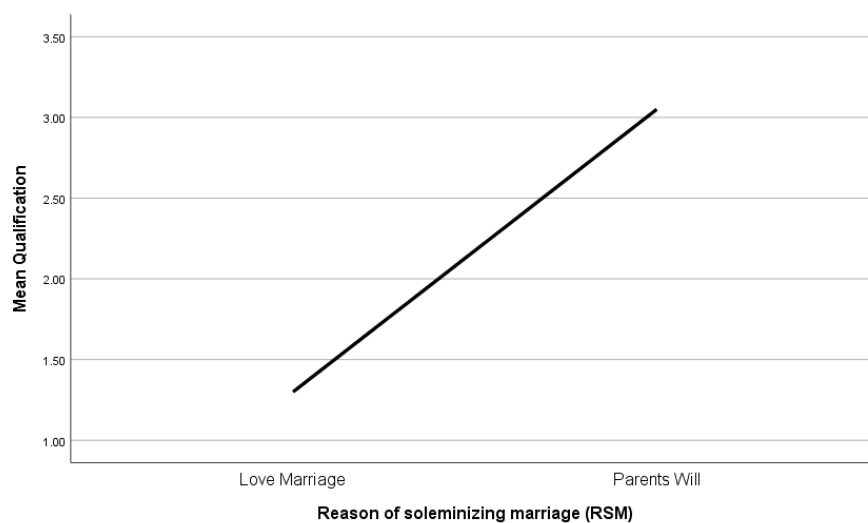


Figure 8. Graph of mean Qualification level by reason for solemnizing marriage

Survey Item 7: Perception regarding legal age for marriage. All of the participants in the Illiterate or Primary certification levels responded they did not know the legal age for marriage in Pakistan ($N=12$, 43%). The higher the Qualification level of the respondent, the higher their reported belief of the legal age for marriage. Two participants, with higher secondary and undergraduate certifications, reported their perception of the legal age for marriage in Pakistan was 21-25 years of age. Fifty percent of the participants ($N= 15$) reported the legal age for marriage in Pakistan to be between 16 to 20 years. The majority of these held a secondary level certification.

Table 5. Perception regarding legal age for marriage (by Qualification level)

Perception Regarding Legal Age for Marriage in Pakistan	<i>N</i>	Percent (%)	Education level of the respondents				
			Illiterate	Primary	Secondary	Higher secondary	Under-graduate
Don't know	12	40	7	5	0	0	0
10-15	1	3	0	1	0	0	0
16-20	15	50	0	3	8	4	0
21-25	2	7	0	0	0	1	1
Total	30		7	9	8	5	1
		100%	(23%)	(30%)	(27%)	(17%)	(3%)

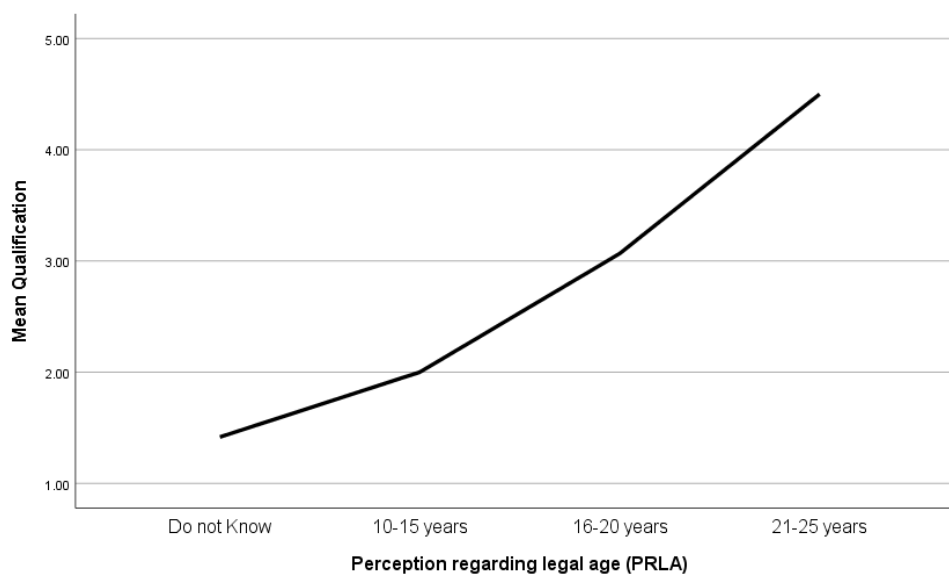


Figure 9. Mean of Qualification level by respondents' perception of the legal age for marriage

Survey Item 8: Role of modern communication devices. Thirty percent of the participants reported the media did support CM; seven of these participants were in the Illiterate category and two held Primary certificates. All respondents with a Secondary certificate, or above, ($N=14$, 70%), reported media through the modern communication devices they used did not support CM. Seven participants out of nine, holding a Primary certificate, also reported the media did not support CM. Those reporting “Yes” correlated with a low Qualification level as shown in the graph in Figure 8.

Table 6. Role of modern communication devices in encouraging child marriage (by Qualification level)

Role of Modern Communication Devices	<i>N</i>	Percent (%)	Education level of the respondents				
			Illiterate	Primary	Secondary	Higher secondary	Under-graduate
Yes	9	30	7	2	0	0	0
No	21	70	0	7	8	5	1
Total	30	100%	7 (23%)	9 (30%)	8 (27%)	5 (17%)	1 (3%)

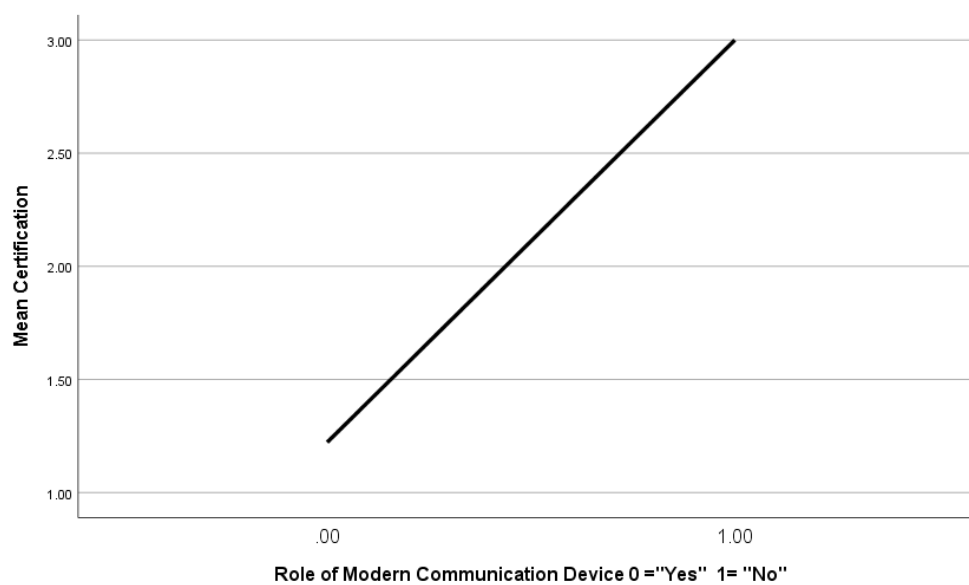


Figure 10. Mean of Qualification level by respondents' reports whether they perceived the media as supporting child marriage

Survey Item 9: Responsibilities after marriage. Eighty-seven percent of the participants ($N=26$) reported that their responsibilities in the home increased after marriage. This also correlated positively with a lower Qualification level.

Table 7. Responsibilities after marriage by Qualification level.

Respon- sibilities after Marriage	<i>N</i>	Percent (%)	Education level of the respondents				
			Illiterate	Primary	Secondary	Higher secondary	Under- graduate
Decreased	3	10	0	0	0	2	1
As before	1	3	0	0	0	1	0
Increased	26	87	7	9	8	2	0
Total	30		7	9	8	5	1
		100%	(23%)	(30%)	(27%)	(17%)	(3%)

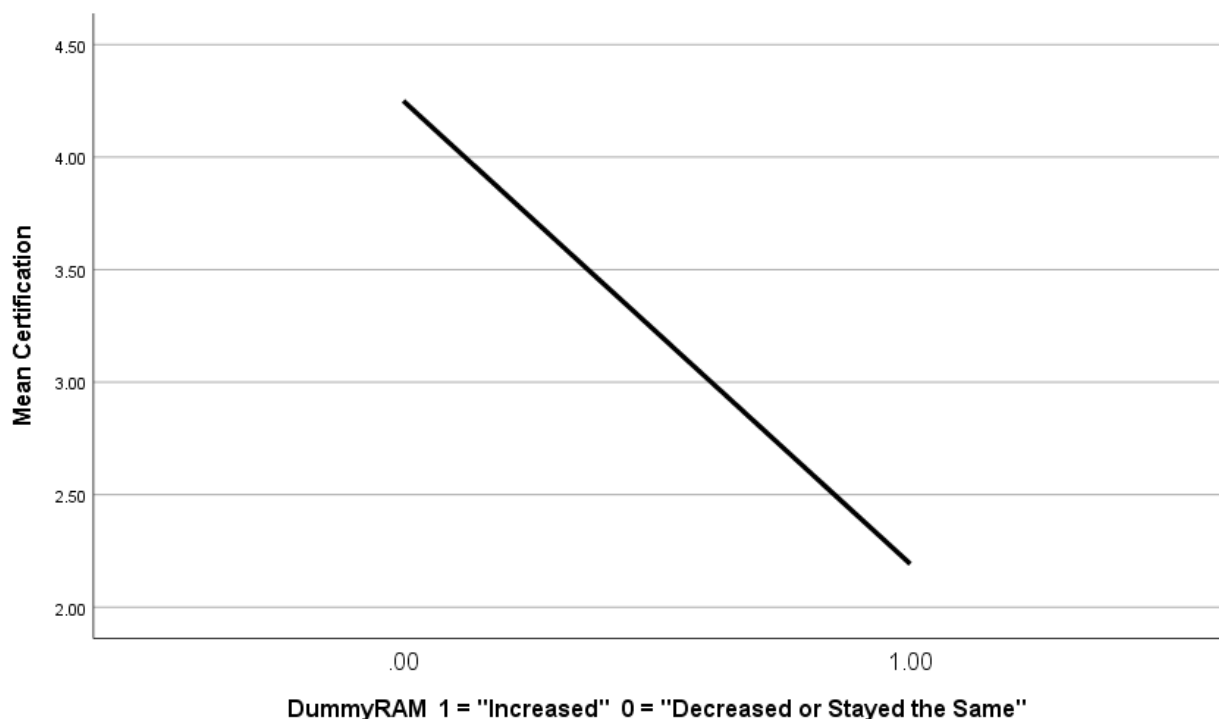


Figure 11. Mean of Qualification level by respondents' reported responsibility level after marriage compared to before marriage

Survey Item 10: Decisions over financial transactions. No participant reported she had the sole power to make decisions related to financial transactions. Seventy percent reported their husbands made these decisions. When the husband alone made the financial decisions this correlated with the lowest Qualification level of the child bride. When both the husband and the wife made this decision ($N=5$, 17%), the education level with the highest. Thirteen percent reported family members took this responsibility and in these cases, the females' Qualification level was much lower than when the husband and wife made the decisions together, though still higher than when the husband made these decisions alone.

Table 8. Decisions over financial transaction (by Qualification level)

Decisions over Financial Transactions	<i>N</i>	Percent (%)	Education level of the respondents				
			Illiterate	Primary	Secondary	Higher secondary	Under- graduate
Self	0	0	0	0	0	0	0
Husband	21	70	7	7	5	2	0
Both	5	17	0	0	1	3	1
Family Members	4	13	0	2	2	0	0
Total	30		7	9	8	5	1
		100%	(23%)	(30%)	(27%)	(17%)	(3%)

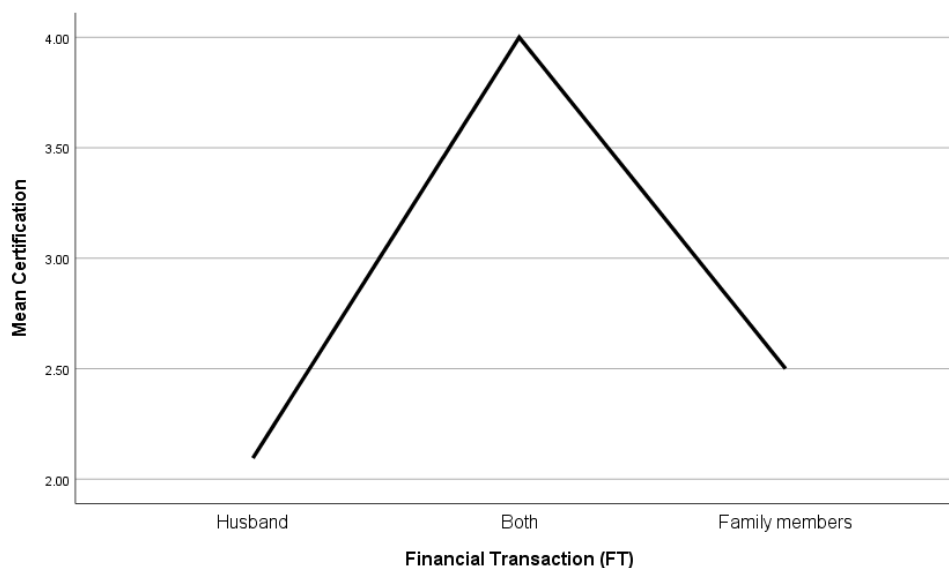


Figure 12. Mean of Qualification level by respondents' reported power over decisions related to financial transactions

Survey Item 11: Decisions regarding education and training. Seventeen percent of the participants ($N=5$) reported having sole decision over her choice to continue her education after marriage. The mean Qualification level for this category was lowest of all categories. Respondents reported that fifty-seven percent of the bride’s husbands ($N=21$) and family members ($N=4$) had decision-making power related to the girl’s education and training. When both husband and wife made these decisions together ($N=8$, 27%) the Qualification level went up slightly. The Qualification level mean was the highest when participants reported their family members made the decisions regarding education and training.

Table 9. Decision regarding education and training (by Qualification level)

Decisions Regarding Education and Training	<i>N</i>	Percent (%)	Education level of the respondents				
			Illiterate	Primary	Secondary	Higher secondary	Under-graduate
Self	5	17	5	0	0	0	0
Husband	14	47	2	6	5	1	0
Both	8	27	0	3	3	2	0
Family Members	3	10	0	0	0	2	1
Total	30		7	9	8	5	1
		100%	(23%)	(30%)	(27%)	(17%)	(3%)

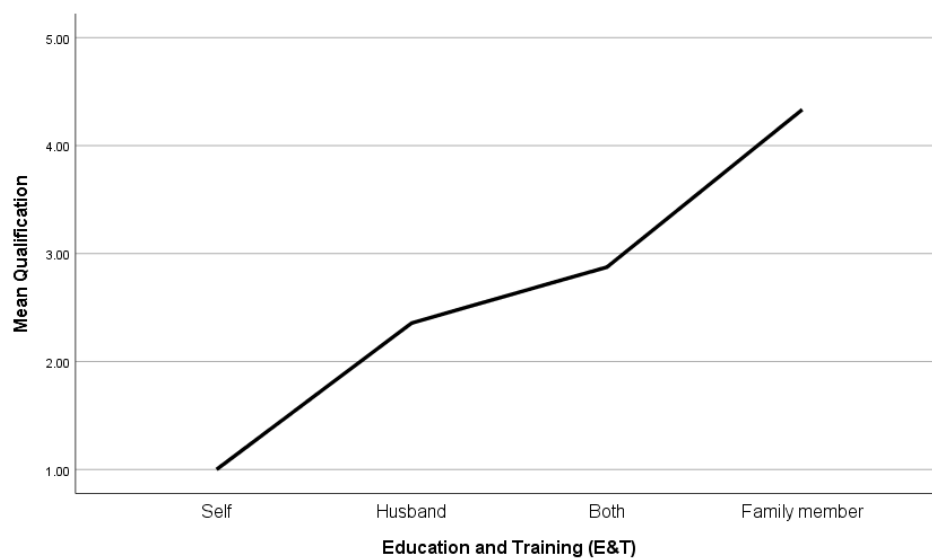


Figure 13. Mean of Qualification level by respondents’ reported responsibility over her education and training

Survey Item 12: Power of decision related to domestic issues. Eighty-seven percent of participants ($N=26$) reported that they did not have the power to make decisions regarding the domestic matters in the home, while thirteen percent ($N=4$) reported they did make these decisions. Three participants jointly made these decisions with their husbands. Again, a girl’s power over decision-making regarding domestic issues had the lowest mean Qualification level. Again, the family members taking these decisions demonstrated the highest mean Qualification for the females.

Table 10. Decisions related to domestic issues (by Qualification level)

Decisions regarding Domestic and Social Work	N	Percent (%)	Education level of the respondents				
			Illiterate	Primary	Secondary	Higher secondary	Under-graduate
Self	4	13	4	0	0	0	0
Husband	17	57	3	7	5	2	0
Both	3	10	0	2	1	0	0
Family Members	6	20	0	0	2	3	1
Total	30		7	9	8	5	1
		100%	(23%)	(30%)	(27%)	(17%)	(3%)

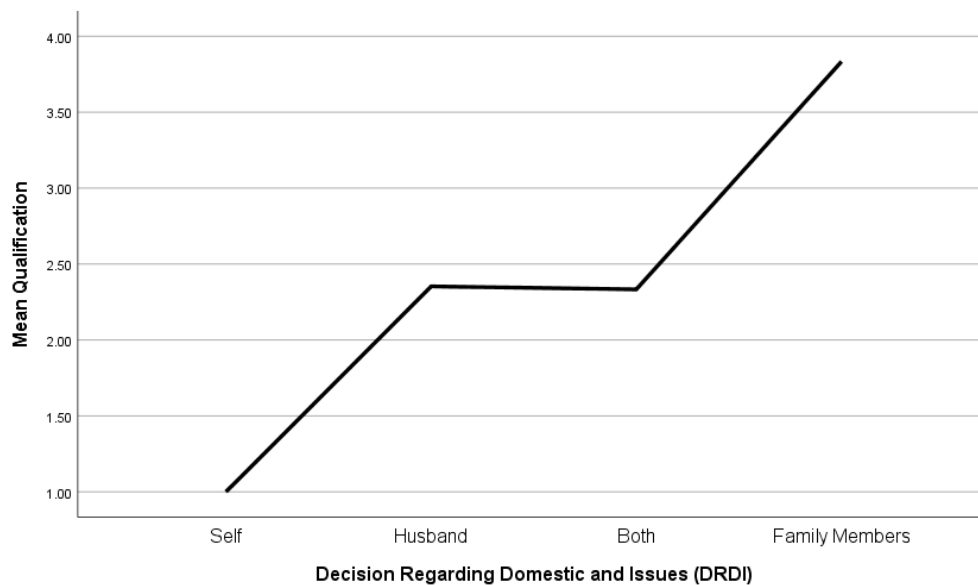


Figure 14. Mean of Qualification level by respondents’ reported power over decisions related to domestic issues in the home

4.4.1 Correlation Analysis

Tables 11 and 12 provide the results of correlation analyses between variables in the study using SPSS v. 23 (IBM, 2013).

Table 11. Descriptive statistics and Pearson coefficients of significant correlations with participant's Qualification level

	Pearson Coefficient	<i>p</i> value	Mean	Std. Deviation	N
Qualification			2.4667	1.1366	30
Age of at time of study (ATS)	.484**	.007	1.3667	.55605	30
Age at marriage (ATM)	.335	.070	3.9667	1.12903	30
Reason for solemnizing marriage (RSM)	.738**	<.001	1.6667	.47946	30
Perception regarding legal age for marriage in Pakistan (PRLA)	.841**	<.001	2.2333	1.0727	30
Role of modern communication devices (RMC)	.729**	<.001	1.700	.46609	30
Responsibility after marriage (RAM)	-.626**	.001	1.1667	.46113	30
Decisions regarding financial transactions (FT)	.331	.074	2.9667	.55605	30
Decisions regarding education and training (E&T)	.688**	<.001	2.3000	.87691	30
Decision regarding domestic and social work (DRDI)	.754**	<.001	2.3667	.96431	30

Note. **Correlation is significant at the 0.01 level (2-tailed).

Table 12. Correlations between independent variables on the survey

FAECM	ATM	RSM	PRLA	RMCD	RAM	FT	E& T	DRDI
Age at time of marriage 1 (ATM).		.234	.405*	.177	-.365	.396*	.463*	.550**
		.214	.026	.350	.047	.030	.010	.002
Reason of solemnizing marriage (RSM).	.234	1	.827**	.926**	-.277	.428*	.656**	.572**
	.214		<.001	<.001	.138	.018	<.001	.001
Perception regarding legal age (PRLA).	.405*	.827**	1	.766**	-.471**	.528**	.766*	.681**
	.026	<.001		<.001	.009	.003	<.001	<.001
Role of modern communication devices (RMCD).	.177	.926**	.766**	1	-.257	.396*	.650**	.560**
	.350	<.001	<.001		.171	.030	<.001	.001
Responsibility after marriage (RAM).	-.365	-.277	-.471**	-.257	1	-.311	-.660**	-.676**
	.047	.138	.009	.171		.095	<.001	<.001
Financial transaction (FT).	.396	.428*	.528**	.396**	-.311**	1	.654**	.748**
	.030	.018	.003	.030	.095		<.001	<.001
Education and training (E & T).	.463**	.656**	.766**	.650**	-.640**	.654**	1	.885**
	.010	<.001	<.001	<.001	<.001	<.001		<.001
Decision regarding domestic issues (DRDI).	.550**	.572**	.681**	.560**	-.676**	.748**	.885**	
	.002	.001	<.001	.001	<.001	<.001	<.001	1

Note. **Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

4.4 Regression on Qualifications after Child Marriage

VanVoorhis and Morgan (2007) wrote, “ If the expected effect size is large, lower power can be tolerated and total sample sizes can include as few as 8 observations without inflating the alpha rate” (p. 49). The researchers expected a large effect size for the variables regressed on the dependent variable in this study. Therefore, the researchers performed a multiple regression to investigate the relationship between the independent variables shown to have significant correlation with the dependent variable - Qualification. The results from the preliminary analyses, demonstrated that the data met the assumptions of normality, linearity,

multi-collinearity required for multiple regression analysis. All the variables shown to have significant correlations with Qualification level were entered simultaneously into the regression analysis, along with the demographic variable ATS, to determine any interaction effects. The results from the multiple regression analysis revealed the variable ATS had a significant effect. Three variables from two categories, Family and Community Norms and Education and Learning, explained a significant proportion of the variance in the mean of participants' Qualification level ($R^2 = .869$ $F(4, 25) = 48.988$, $p < .001$). The R^2 of .869 was significant and considered a large effect (Cohen, 1988) justifying the use of the small sample size ($N=30$) in the regression analysis. Controlling for the demographic variable - Age of respondent at time of study (ATS), large positive effects were noted for the independent variables Perception regarding legal age for marriage ($\beta = .707$, $p < .001$), Decisions regarding education and training ($\beta = .474$, $p = .004$), and Responsibilities after marriage ($\beta = -.365$, $p = .001$). Table 13 shows the unstandardized and standardized Beta coefficients, t and p values for the independent variables regressed on the dependent variable - Qualification level.

Table 13. Regression of significantly correlated child marriage variables on the dependent variable - Certification, including unstandardized Beta, standardized Beta, t and p values, controlling for Age of respondent at time of study.

Variables from the literature considered to explain variations in CM education levels	B	β	t	p
Perception regarding legal age for marriage (PRLA)	.749	.707**	6.709	<.001
Decisions regarding education and training (E&T)	.614	.474**	3.211	.004
Responsibilities after marriage (RAM)	-1.199	-.365**	-3.970	.001

Note. ** $p < .01$, $R^2 = .869$, $F_{(4,25)} = 48.988$.

5. Discussion and Conclusion

This section provides a discussion of the results of the analysis of the data including a comparison with the literature, a conclusion, limitations of the study, and recommendations for future research to build on the results from this study.

5.1 Testing the Null Hypotheses

The study tested the null hypotheses that the independent variables selected for testing would show no relationship with the child brides' education level - post CM Qualification level. The results of the data analyses revealed survey Items 6, 8, 9, 11 & 12 significantly correlated with child brides' Qualification level. Therefore, the data provided evidence to reject the H_{01} null hypothesis in favor of the alternative:

H_{01} = The independent variables selected for testing, and included under the domains of Family and Community Norms, Influence from Institutions outside Education, and Teaching and Learning Practices, will have no correlation with the dependent variable, Qualification level of child brides at the time of the study.

The results of the regression analysis showed survey Items 7, 9 and 11 in two of the domains, Family and Community Norms and Teaching and Learning Practices significantly correlated with and demonstrated a large effect in explaining variations in the dependent variable – Certification level at time of the study. Therefore, the data provided evidence in support of rejecting the H_{02} null hypothesis.

H_{02} = The independent variables selected for testing and included under the domains of Family and Community Norms, Influence from Institutions outside Education, and Teaching and Learning Practices, that show significant correlation, will have no significant effect in explaining variations in the dependent variable, Qualification level of child brides at the time of the study.

Figure 4 shows a model developed from the results of the analyses of the data items regressed on the dependent variable – Qualification, by key domains identified in the *2016 Global Education Monitoring Report for monitoring gender equality in education* (Vaughan et al., 2016, as cited in UNESCO, 2018, p. 10).

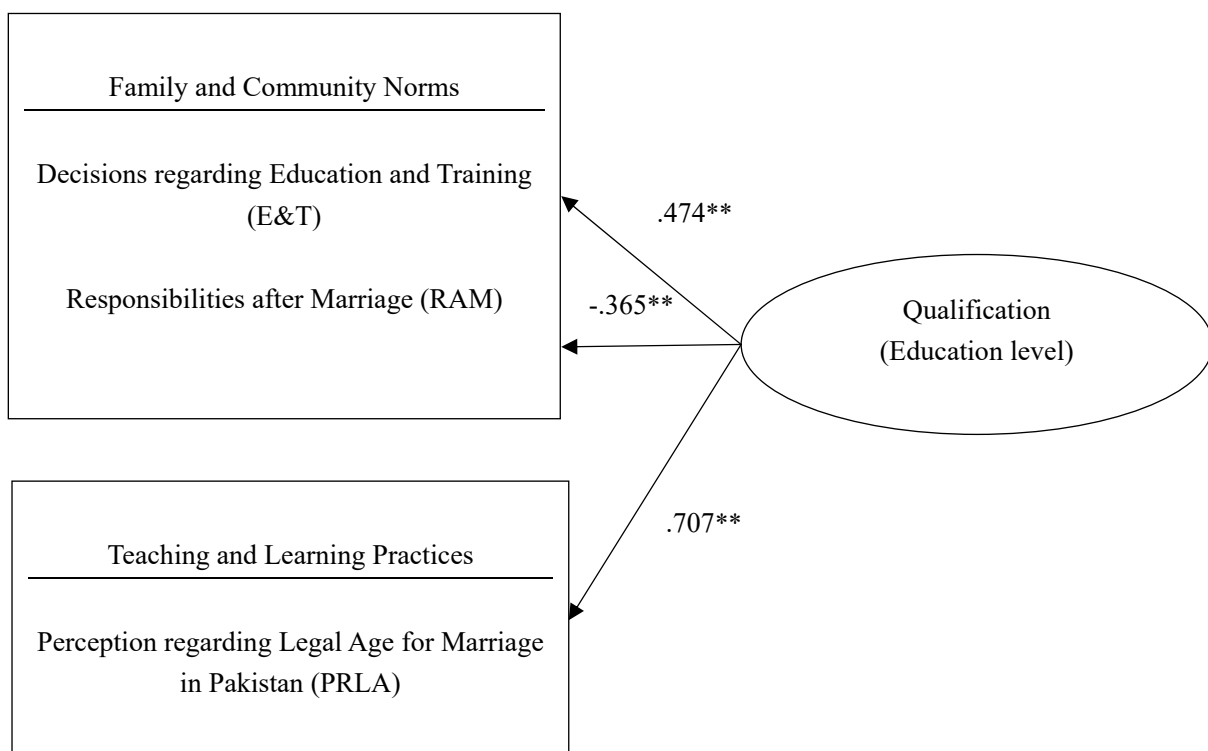


Figure 15. Model of relationships of post child-marriage variables regressed on Qualification level of the participants

5.1 Discussion

5.1.1 Family and Community Norms

Items 3: Age at time of marriage (ATM). There was no significance in the correlations between ATM and girls' Qualifications. As a girl's ATM increased, her qualifications also increased up to age 16 years then there was a sharp decline at age 17. All the participants in this study married under the recommended legal age set by international, regional, and state specific conventions promoting age appropriate (18 years-of-age), free-will marriage agreements (Ferreira & Kamal, 2017, p. 287; Bruce & Clark, 2004). UNICEF (2017, cited in Girls Not Brides, 2018b, para. 1) reported 3% of the children in Pakistan are married before age 15 and 21% by age 18. The Child Marriage Restraint Act (CMRA) 1929 set the legal age for marriage in Pakistan at 16 for women and 18 for men (Girls Not Brides, 2018b, para. 3). Still, thirty percent of the participants ($N=9$) married under the legal age for Pakistan.

Item 6: Reason for solemnizing marriage (RSM). Although RSM did not evidence a significant effect in explaining variations in the mean Certification level, there was an indirect effect on many of the other variables tested. "Love" marriages and "Parents' Will" marriages correlated exactly opposite for all independent variables and the dependent variable. In rural communities, the younger and prettier the girl, the more desirable for a rich man to marry and to have her be a servant in the home; loving and caring for him and the family. She does not need Qualifications, nor to work outside the home (Khan et al., 2017; Yolah, 2001). In Honor cultures, parents worry that their daughters will never marry if they do not marry early. Resultantly, parents are more likely to send their older daughters to school. "In [the] local context as the age [of a girl] grows, worries of the parents about their daughter[']s marriage increases. [O]ne of the [reasons a] girl's education increases with age is that there are rare chances of marriage... so they continue their education" (Muhammad Niqab, author, December 13, 2018, personal communication). In addition, parents must pay higher dowries when choosing to delay their daughter's marriage to an older age or if there is no marriage mate found when the girl is younger (Sofi, 2017). "A current trend is that many husbands need to enhance their income and therefore seek a working girl to marry thus older girls tend to have higher Qualifications (Muhammad Niqab, author, December 13, 2018, personal communication). The result then that marrying for "Parents' Will" becomes a pragmatic approach to solemnizing the marriage. The data clearly supports this trend.

Item 9: Responsibilities after marriage (RAM). The younger the girl the more she reported her responsibilities increased after marriage. This is consistent with the discussion in ATM and RSM above and in the literature review. Within the rural context of this study, men seek young girls to marry. The literature suggested girls are easier to socialize to the husband's home and to work as servants (Khan et al., 2017; Yolah, 2001). Girls' responsibilities after marriage negatively correlated with all three decision-making survey items 10-12. RAM also showed a negative significant relationship in explaining Certificate level of the respondents. The literature supports these findings. Researchers suggested providing flexible school schedules so brides can complete their home duties and still be able to attend school (Sathar & Lloyd, 1994).

Item 10: Decisions regarding financial transactions (FT). FT did not show a significant effect in predicting Qualification levels. No participant reported she had power over decisions related to financial transactions in the home. This is consistent with the culture norms in a hierarchical system. The higher the Qualification level of the participant the more she shared the decisions with the husband or the family members had the responsibility for FT. There are many influences underlying the conditions in the brides' homes that may affect who makes the decisions in the home; such as age at ATM, ATS, and RSM. This could explain why this factor did not show significance.

Item 11: Decisions regarding education and training (E&T). The mean for girls' Qualification/Certification level rose as the hierarchical authority to make decisions over E&T rose. This is counterintuitive from a Western worldview. The data suggested that even when girls had the power to choose their education and training ($N=5$) they did not pursue it. Participants may be following the cultural norms of supporting their family and not take the decision to abandon responsibilities in the home to improve their own education. When both husband and wife shared these decisions ($N=8$) the certification level was higher than when the bride held the power herself. The majority of husbands had the sole decision-making power over their bride's education ($N=14$), though their decision to promote their bride's education was less than when the brides' in laws had this power ($N=5$). These results reflect the influence of a girls' ATM on this variable. In all incidents where family members held the decision over E&T, the bride was 17-years-of-age ATM. The brides may then have entered the marriage with higher certification level. The ability of the bride to contribute to the household income may have influenced these marriage decisions as the respondents all reported RSM pragmatic "Parents' Will" marriages. The directionality of the influence of the variables warrants further study.

Item 12: Decisions regarding domestic issues (DRDI). The majority of the respondents reported their husbands made the decisions related to domestic issues and they were limited in their personal choices. However, the older the ATM the more the family members kept power over the DRDI. Seventeen-year-olds had a wide variation in power over DRDI and this may be due to the difference in RSM. This item did not show significance in explaining a girls' Qualification level.

5.1.1 Teaching and Learning Practices

Survey Item 7: Perception regarding the legal age (PRLA) was the main effect explaining variations in the mean of the participants' educational level. It is important to understand the context of this variable. The data trend indicated that girls with higher levels of education perceived the legal age for marriage as older. This suggests a positive role played by education in the girls' knowledge and perception of the laws that differ from the traditional community and customs. This is consistent with Rahim and Jahangir (2016) who studied the influence of education on honor killing perspectives of students in Pakistan, "[E]ducation can make the difference, it being the key factor" (p. 135). Girls who viewed the legal age for marriage as below 16 years, or did not know the legal age, had the highest increase in responsibilities after marriage and the lowest mean Qualification levels, and perceived the media as supporting CM.

PRLA also negatively correlated with RMCD and with a girl's responsibilities after marriage (RAM). This is consistent with the literature of a hierarchical culture where girls follow the model set by the parents. "In [the] majority [of] cases girls do not know whether it is right or wrong [to marry at an early age], they just obey their parents. In other words, we can say in many cases marriages are arranged and then girls start compromising. As she had seen her mother and grandmother following the same procedures," (Muhammad Niqab, author, December 13, 2018, personal communication).

5.1.2 Influence from Institutions outside Education

Survey Item 8: Role of modern communication devices (RMCD). The influences to enhance a girls' awareness of the legal age for marriage can come through a variety of medium, not just the formal public or private schools for children and teenagers. Seventy percent of participants reported the media they viewed did not support CM. Thirty percent reported the media they viewed did support CM. The characteristics of the "No" group were higher Qualification level and higher perceptions of the legal age for marriage. The "Yes" group were Illiterate Qualification level or held a Primary Certification. The results suggest participants and or family members may be self-selecting from a wide variety of media sources that support their worldview and cultural experiences. This is consistent with the survey results showing RMCD had a strong correlation with girls' Qualification level. RMCD had a high significant correlation with participants' mean Qualification, though did not show a significant effect in explaining the variations in the dependent variable in the regression analysis. The research reported differing results regarding the influence of modern communication devices on girls' education level. Khan et al., (2017) found that participants' use of a radio, cell phone, and or personal computer had a negative predictive relationship with school completion. Bayisenge (2010) wrote the use of new forms of mass media could promote changes in individual, family, community and societal awareness and produce changes in norms related to CM. In light of the results of this study, media may not be an effective means for change where individuals self-select their viewing in alignment with their cultural biases.

5.2 Conclusion

This study added to the literature on CM, linking post CM factors with a child bride's education level, as measured by Qualification/Certification level at the time of this study, controlling for ATS. A regression of significantly correlated variables from two of Vaughn's Domains, Family and Community Norms (FCN) and Teaching and Learning Practices (TLP), showed large effects in explaining variations in the DV ($R^2 = .869$ $F(4, 25) = 48.988$, $p < .001$). FCN factors that showed significant effects were Responsibilities in the home after marriage (RAM), showing a significant and moderate negative effect, and Education and Training (E &T). When relatives held the power over decisions regarding E&T, a girl's post-marriage education level increased. The Domain of ELP provided the main effect, attributed to the variable, Perceptions regarding the legal age for marriage (PRLA), which was large. A girl's PRLA varied based upon ATM, with the younger ages reporting the lowest legal age or did not know. A girls' ATM positively correlated with her level of education, with influences evidenced from the RSM marriage. Marrying for "Love" negatively correlated with all

variables where marrying for “Parents’ Will” were positive and vice versa. When a girl reported marrying for “Love,” this negatively correlated with Qualification level.

Conclusions from this study point to the influence the child bride’s household and community norms have on her educational attainment. The more powerful influence, however, came from the bride’s knowledge of the legal age of marriage. Country-specific studies have demonstrated the “effects that country and the community characteristics have on the association between early marriage and schooling” (Delprato et al., 2015, p. 42). The literature review provided a lens explaining that the values and actions from Honor codes exist in both eastern and western countries throughout the world, participating in the practices of CM (Kay, 2012; Lilian, et al., 2015). Common demographics include populations living in poor rural areas having little education and following traditional cultural practices. Often parents hold a low perceived value for sending girls to school, preferring CM, having their daughters work at home or in local jobs where they can learn skills (Khan et al., 2017). The following section provides implications of the study results that may be useful to affect improvements in the treatment of girls in societies practicing CM and attainment of gender parity in education with males.

5.3 Implications

Raj (2010) reported “...the primary contextual factor heightening risk for girl child marriage is gender inequity, often characteri[z]ed, at least in part, by lower access to education and employment opportunities for females relative to males” (p. 931). Vaughan et al., (2016, as cited in UNESCO, 2018) wrote of the importance of supporting “gender norms, values and attitudes,” including sexual and reproductive health decisions; women’s autonomy and empowerment... [and] household ... decisions” in their key domains (p. 10). Equitable treatment of females is a burning issue at the individual, community, and country levels. However, the results of this study showed that a western view of autonomy and independence did not correlate with girls’ educational outcomes in a hierarchical social structure. Where the power relationships between age and gender play a key role in families, it is important for girls to have family members who support their education. Therefore, increasing a girls’ power over decision-making alone may not translate to increases in her Qualification level post CM. Girls in Honor Cultures have home responsibilities that contribute to the welfare of the family and a child bride weighs heavily her husband’s and family’s opinions in her decisions. Consequently, increases in a child bride’s responsibilities negatively correlated with her Qualification level. Therefore, Sathar and Lloyd (1994) suggested that developing flexible school schedules so girls can complete their home responsibilities and still attend school would be a more realistic way to increase the enrollment of girls in school and keep them there through adolescence. Implicit in this process is delaying a girl’s motherhood until after the girl’s graduation, or at least 18 years-of-age (Samari, 2017).

PRLA was the main effect explaining variations in the mean of respondents’ Certification levels. Girls and families may change their practices of CM when girls gain access to macro-level data from outside their traditional community practices that increase a girl’s awareness of laws relating to girls’ rights. The individual can “cross [cultural] boundaries” to where new learning can occur (Hanson, 2017a, p. 134). The results of this study suggest a

combination of family members and husband's approval of such access is the pathway. Hanson (2017b) wrote, "...alignment with the values embedded in the actions undertaken. ... [a] sense of belonging and social identity, with supportive others, is inherent in the process of [learning]" (p. 45). The bi-directional nature of increased education and knowledge could also lead to householders' perceptions of the child bride's abilities, leading to a collaboration in decisions related to her welfare. School leaders can develop a variety of alternative education delivery systems that reach girls in the home so they can receive quality education where they are without traveling or leaving their home responsibilities. School leaders can advocate for social change by distributing the results of this study to stakeholders and engaging in challenging conversations about the key factors shown to contribute to improvements in girls' educational levels (Jones et al., 2010). Advocates can develop local solutions for contextually based issues of CM from collaborations that recognize existing rural community social structures.

Religious leaders, doctors and school administrators can use the results of this study to play a vital role in highlighting and eradicating the issue of CM by developing awareness in rural traditional communities of the legal age for marriage in Pakistan. For example, Pakistan has increased the integration of community workers into the health systems through community health-worker programs. The "Lady Health Worker Programme has over 90,000 workers serving 70% of the rural population" (Zulu et al., 2014 as cited in UNESCO, 2018, p. 23). This new resource can be leveraged to influence recognition in local communities' of the negative effects of CM, the positive effects of ensuring females complete their education before marriage, and to encourage the permission of householders to allow brides to engage in outside activities and education to promote their development.

Research provides a variety of methods to create "bridges" to facilitate communication on the issue of CM (Akkerman & Bakker, 2011). Key steps in the process include a combination of factors that involve recognizing social networks, formal structures, and vital leaders who can create open vital systems in the community and contribute informal educational opportunities (Hanson, 2017a). This requires community engagement and can use story, play, and valued others as mentors, to provide opportunities to develop relationships and trust with householders as noted in section 2.4.1 Interventions of this paper. Changing perceptions of the role of the female in society as equal, though different, to males is a culturally sensitive approach. Recognizing a female's dignity and worth includes promoting her personal development and the necessary skills to advocate for her needs, have a voice in marital arrangements, and sense of self-confidence that will build the community and the country's wellbeing (Evans, 2008, *Girls Not Brides*, 2017a).

The influence of new communication devices did not explain improvements in a child bride's Qualification level. Implications from the results of this study include recognizing that individuals may self-select, or perceive, information that supports their worldview. Hanson, Ruff, and Bangert (2016) wrote, "We naturally seek similarities in others based on a variety of factors ... as this validates our personal identity and creates a bond..." (p. 133). Advocates can more effectively direct their efforts to reach their target by considering the RMCD when designing their communication campaigns. Improving communication between diverse others requires facilitated mentoring by known trusted others, spending time together to develop

common understandings, and a willingness to challenge one's assumptions. Identifying trusted mentors and vital leaders in the local contexts is a key to bringing new data into the community for developing new identities and improving the view of females as equally valued with males (Hanson, 2017).

CM is not an easy problem to solve as social and economic systems have embedded factors contributing to acceptance of the practice (ABCs for Action and Advocacy, 2012). Therefore, the crucial role of intervention lay with advocates and the state to provide contexts that are safe and contextually relevant for females. Gender equity means fair treatment for women and men while taking into account their differing needs.

In sum, this paper sought to contribute to a better understanding of the complex phenomenon of CM in a rural Pakistan community by exploring child bride's responses to quantitative survey items quantifying selected post CM variables from the literature and shown to influence girls' educational opportunities and attainment. Advocacy groups describe CM as a human rights violation, defined as the deprivation of adequate education for personal, economic, and social development. Lilian et al. (2015) reported that the longer girls spend in quality educational settings the more they acquire skills for survival, independence, and develop confidence. When girls learn about laws related to their rights and gain additional education they are better able to collaborate with their husbands and family members. Collaboration is a key to consented marriages and to eliminating early and forced CM. This exploratory study provides insights that can be used to prompt discussion and lay a groundwork for future research on the topic. Equal educational opportunity for all is important as it provides the strong skills foundation for individuals, their communities, and for the country's socio-economic development (Memon, 2007).

5.4 Limitations

This study was limited in scope by the boundaries of the community selected for the demographic area of the study and by the small number of participants. The sample size was sufficient for the purposes of an exploratory study and high considering the difficulty in obtaining access to child brides in the context of the communities in which they live. Researchers anticipated the potential of some positive response bias due to the familiarity of the researcher, who collected the data, with some of the participants. However, the researcher would not have had access to the participants unless the participants knew and trusted her. There was no power differential between the researcher and the participants. The researcher had more education than the participants did. Participants could view this education level difference as having influence over them. The sample size in this study was small for a quantitative design. A large anticipated effect size, strong Cronbach's alpha for the survey instrument, and the rigorous research design, supported the usefulness of the data for drawing valid conclusions from the analyses. The results may not generalize to populations beyond those with similar demographics from which this sample was drawn. The researcher, who collected the data, was a community member from the population sampled in this study, her personal experiences and beliefs would have some bias in the research. Therefore, the first and second authors performed additional analyses on the de-identified data, confirmed, disaffirmed,

and expanded on the conclusions drawn from the data. Factors that influence girls' certification level such as of safe transportation to and from school, clean girls' only facilities, and quality curriculum, availability of trained female teachers from the local area, and vital leaders who keep corruption off limits in schools were not tested and were beyond the scope of this study (Psaki, as cited in Samari, 2017, p. 5). Macro-factors, such as law and policies written to protect the female and provide economic advantages to families for improving a girl's education, providing a stable economy, and government's influence in the local context were also beyond the scope of this study.

5.5 Recommendations

Future studies could test the directionality and moderating effects of the variables tested in this study, including a path analysis. Replication studies can seek to collect larger samples and retest to confirm the results. Researchers can test the generalizability of the empirical results. Qualitative studies can seek a rich thick understanding of the child bride's perceptions and experiences of her home environment and its influence on her educational outcomes. The literature calls for research to identify the critical elements included in a definition of education that ensures equity for girls as unique from boys in honor cultures.

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Glossary

ATS - Age at time of study

ATM - Age at time of marriage

CM - Child Marriage

DRDI - Decision Regarding Domestic Issues

E&T - Education and training

FT - Financial Transaction

PRLA - Perception regarding legal age for marriage in Pakistan

RAM - Responsibility after Marriage

RMCD - Role of modern communication devices

RSM - Reason of solemnizing marriage

UNICEF - United Nations International Children's Emergency Fund

UNESCO - United Nations Educational, Scientific, and Cultural Organization

Appendix A

Questionnaire for Early Married Female

Survey Pseudonym Code:

1. Gender (1) M (0) F

2. Status: Married/Unmarried _____

3. Age at time of marriage:

(1) 13 years (2) 14 years (3) 15 years (4) 16 years (5) 17 years (6) 18

years

4. Age of Respondent:

(1) 15-20 years (2) 21-25 years (3) 26-30 years

5. Qualification Level:

- (1) None (2) Primary Education (3) Secondary (4) Higher Secondary
School (5) Under Graduate

6. Why did you marry early?

- (1) Love marriage (2) Parents will (3) Relatives pressure

7. Do you know the legal age of marriage in Pakistan?

- (0) Do not know (1) 10-15 years (2) 15-20 years (3) 21-25 years (4)
26-30 years

8. Do modern devices like mobiles, internet encourage child marriage?

- (1) Yes (0) No

9. Do you feel your workload and responsibility increased or reduced after your marriage?

- (1) Reduced (2) As before (3) Increased

10. Who makes the financial decisions in the home?

- (1) Self (3) Husband (2) Both (4) Family members

11. Who makes the decisions related to your education?

- (1) Self (3) Husband (2) Both (4) Family members

12. Who makes the decisions regarding domestic and social work?

- (1) Self (3) Husband (2) Both (4) Family members

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