Gender Equality and Post-Conflict Peace

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Bio:

Eliza Kelly is a senior at the University of North Texas majoring in International Studies with emphases on peace and conflict and international development. In 2009, she studied abroad in The Hague, Netherlands, at the International Tribunal for the Former Yugoslavia (ICTY) with two political science professors from UNT. This led her to conduct research on the participation of female witnesses in cases of sexual violence at the ICTY, about which she made a poster presentation at the Midwest Political Science Association Conference in April, 2010. In spring 2010, she served as an intern at the International Rescue Committee in Dallas. Upon graduating, she plans to pursue a Ph.D. in Social Work with an emphasis on post-conflict reconstruction. She has traveled all over the world and loves experiencing other cultures. She also enjoys music, visual art, and books.

Abstract:

Although women make up at least 50 percent of the population, they are the most marginalized cross section of society, regardless of ethnicity, religion, political affiliation, or class (Anderlini 2007, 126). While forms of gender relations may vary across different cultures, women are almost always unequal (Scott 1986). Previous studies have found significant correlation between gender equality and a country's participation in both interstate and intrastate conflicts (Caprioli 2000; Caprioli and Boyer 2001; Melander 2005; Regan and Paskeviciute 2003). This study seeks to build upon these findings and explore the relationship between gender equality and the duration of peace in post civil war societies. Various factors influence the duration of peace in post-conflict societies; this study reveals, however, that gender equality has a significant impact on whether or not peace will endure. In fact, gender equality can serve as a means of achieving democracy and economic growth in post-conflict reconstruction. I conclude with recommendations for future research and a discussion of the policy implications inherent in this body of research.

Introduction

Comprising at least 50 percent of the population, women are the most marginalized cross section of society, regardless of ethnicity, religion, political affiliation, or class (Anderlini 2007, 126). While forms of gender relations may vary across cultures, women are almost always unequal (Scott 1986). Only in the last fifteen years has emphasis been placed on the need to include women in the peace building process. This is evident in the Beijing Declaration (1995) which said, “women's empowerment and their full participation on the basis of equality in all spheres of society, including participation in the decision-making process and access to power, are fundamental for the achievement of equality, development and peace” (Anderlini 2007, 7). Also in 2000, for the first time in its fifty-year history, the Security Council recognized “that women had a right to protection and a role to play in maintaining peace and security” in the passing of UN Resolution 1325 (Anderlini 2007, 7).

Previous studies have found significant correlation between gender equality and a country's participation in both interstate and intrastate conflicts (Caprioli 2000; Caprioli and Boyer 2003; Melander 2005; Regan and Paskeviciute 2003). Gender equality has been measured on political, economic, and social levels. This study seeks to empirically build upon these findings and explore the relationship between gender equality and post-conflict peace. In an attempt to do so, this paper considers the question: *What is the impact of gender equality on the duration of peace in a post-civil war society?*

The role of gender during post-conflict reconstruction is often addressed through feminist literature as a reason for the inclusion of women in the peace building process (McKay 2004). Inclusion and participation of women are often justified through biological (Daly 1984; Elshtain 1986; Griffin 1981; Ruddick 1989; Rossi 1970; Rich 1976) or socially constructed explanations

that suggest the aversion of women to violence and a preference for peace (Caprioli and Boyer 2001; Melander 2005; Tickner 1992, 2001; Goldstein 2001). Several studies conducted to assess the relationship between gender equality and economic growth found that gender inequality impedes economic growth (Klasen 2000; Abu-Ghaida and Klasen 2004). Other studies on gender equality indicate that higher numbers of women in parliament or other positions of leadership within a government are associated with lower levels of conflict (Caprioli and Boyer 2003; Melander 2005; Regan and Paskeviciute 2003). This paper incorporates these various aspects as well as the concept of women as a marginalized group of people to measure the duration of peace in a post-conflict society.

Drawing on the existing gender equality literature, I continue this paper by proposing a theory of gender equality impact on the duration of peace in a post-civil war society. Following this, I lay the foundation for an empirical study, which will test the stated theory. Next I conduct the necessary tests to confirm or reject my proposed hypothesis and offer analysis pertaining to these tests and relationship. Finally, I will conclude with important findings and implications pertaining to this study.

Previous Research

Feminist International Relations Literature

Many scholars who address the role of gender during post-conflict reconstruction rely on work found in the feminist literature as reasoning for the inclusion of women in the peace building process (McKay 2004). Numerous studies have found women to be more peaceful than men and less likely to support the use of force or violence (Frankovic 1982; Smith 1984; de Boer 1985; Shapiro and Mahajan 1986; Fite, Genest, and Wilcox 1990; McGlen and Sarkees 1993; Togeby 1994; Tessler and Warriner 1997).

Two theoretical arguments within the feminist literature seek to explain the nature of women and the use of violence. The essentialist perspective argues that reproductive capacity grants women particular qualities, such as aversion to violence and a preference for peace (Daly 1984; Elshtain 1986; Griffin 1981; Ruddick 1989; Rossi 1970; Rich 1976). Derived from this train of thought, these scholars argue that women in influential positions are expected to attempt to prevent societal problems from escalating to conflict due to biologically instinctive behavior (Caprioli and Boyer 2001; Melander 2005). The constructivist argument, on the other hand, attributes the attitude of women toward violence and the use of force to socially constructed gender roles, where boys and men are raised to be warriors and women accorded the roles of care giver and nurturer (Melander 2005). Within this social construction, “gender roles legitimize the subordination of women” (Tickner 1992, 2001; Goldstein 2001). The essentialist and constructivist explanations for the pacifist nature of women, therefore, serve as justifications for why a society ‘should’ value gender equality.

While much of the earlier feminist literature focused on either the socially constructed or the inherent peaceful nature of women, more recent literature acknowledges the participation of women in conflict (Karam 2001; Wilson 2004; Tobach 2008). Although to a much less extent than men, women participate in conflict through armed forces, as paramilitaries, and as organizers of prostitution (Tobach 2008; Karam 2001; Goldbatt and Meintjes 1998). Caprioli and Boyer (2003) examine the actions taken in ten different crises by a female head of state (Golda Meir, Margaret Thatcher, and Benazir Bhutto) and find that use of violence to manage the conflict escalated in many instances, but it is difficult to generalize from the cases of these three female-led countries. The violent responses and the violence seen in these ten instances of conflict “may be the result of female leaders trying to prove themselves as heads of state in a

hostile, male-defined, and male-dominated international political environment” (507; Tickner 1997).

The examination of women as a marginalized sector of society serves as an alternate explanation for gender inequality that emphasizes the need for women’s participation in the peace building process. Making up approximately fifty percent or half of the world’s population, women, regardless of ethnicity, religion, political affiliation, and class, are “the most politically marginalized cross-section of society” (Anderlini 2007, 126). This marginalization results from women having fewer job opportunities outside of the home and the suppression of any attempted participation and sense of efficacy (Pateman 1970; Zimmerman 1994; Caprioli 2005). War marginalizes women to a far greater extent than it does men, whether they are participants in the conflict or innocent bystanders and victims (Anderlini 2007; Karam 2001).

Gender Equality

Several scholars have shown that the education, employment, and political participation of women are imperative to the achievement of gender equality and women’s empowerment in society (Kabeer 2005; Caprioli 2005; Melander 2005; Regan and Paskeviciute 2003; de la Rey and McKay 2006; Karam 2001; Klasen 2000; Anderlini 2007; Abu-Ghaida and Klasen 2004; Zuckerman and Greenburg 2004). Women’s participation on political, economic, and societal levels is used in several studies to determine the relationship between gender equality and peace.

Gender equality and peace. Several studies have examined the impact that gender equality may have on the occurrence and recurrence of conflict (Caprioli 2000, 2005; Caprioli and Boyer 2003; Melander 2005; Regan and Paskeviciute 2003). Accounting for fertility rates, the number of women in the labor force, and the number of women in parliamentary positions, Regan and Paskeviciute (2003) find that the lower the birthrate, the less likely a state is to engage

in more violent militarized interstate disputes and war (1). While this study shows the effects of gender inequality on interstate conflict, Caprioli (2005) examines the impact of gender inequality on intrastate wars. High fertility rates and low participation of women in the labor force increase the likelihood a state will experience civil war (Caprioli 2005). Building upon these findings, Melander (2005) examines the impact of gender equality measured by the presence or absence of a woman as the head of state, the percentage of women in parliament, and the female-to-male ratio of higher education attainment and the likelihood that a state will engage in internal conflict (696). Higher participation of women in parliament and female-to-male ratio of higher education attainment are associated with lower levels of intrastate conflict (710).

Gender equality and economic development. Some scholars perceive economic development as critical to preventing the recurrence of civil war. In fact, “poverty, lack of economic opportunities, and level of development” are associated with higher risk of civil war (Gates 2002, 9). Several studies conducted to assess the relationship between gender equality and economic development found that gender inequality impedes economic growth (Klasen 2000; Abu-Ghaida and Klasen 2004). Limited and unequal access of women and girls to education and employment is an underlying impediment to economic growth, by preventing the reduction of fertility rates, child mortality rates, and malnutrition (Klasen 2000; Abu-Ghaida and Klasen 2004). The promotion of female education in order to close gender gaps would assist in the overall development of a country as well as encourage gender equality and “is one of the most worthwhile investments available (Abu-Ghaida and Klasen 2004). Melander (2005) also found the more equal the attainment of higher education by men and women, the less the likelihood of internal conflict. This study reveals the significance of closing the gender gap. Higher education is an important aspect of academic achievement that contributes to the economic as well as

political aspects of society and serves as an indicator of gender equality. However, in post-civil war societies, access to higher education is limited, if not absent altogether. Most children do not even have access to primary and secondary education under such circumstances.

GDP per capita, as a means of measuring the level of economic development, is used in both studies regarding the impact of gender inequality on intrastate conflict. Caprioli (2005) found no significance between GDP per capita and gender inequality. However, Melander (2005) found that richer countries are just as susceptible to conflict as poorer countries when the relationship between gender inequality and economic growth is taken into account. This finding is significant because it contradicts the assumptions that economic growth *alone* sustains peace. Ross (2007) concludes that the participation of women in the workforce and the likelihood that they will accumulate political influence is reduced in oil-rich countries, so patriarchal structures are facilitated by the large numbers of women not participating in the economic and political life of the country (14). His study challenges the common belief that economic growth promotes gender equality (1). This can be taken into consideration in a post-conflict society where significant economic growth is not immediately achievable; states should not wait on economic growth to implement mechanisms that promote gender equality.

Gender inequality impacts economic growth. These studies augment the importance of educating women and girls as well as encouraging their participation in the labor force. In this paper I argue that the aforementioned research supports the idea that gender inequality has an impact on economic growth and, more importantly, peace.

Gender Equality and Political Participation

Although women account for 16.5 percent of legislators worldwide, political participation is often measured as an indicator of gender equality (Anderlini 2007). Despite the low number of

women in parliamentary positions, studies indicate that higher numbers of women in parliament or other positions of leadership within a government are associated with lower levels of conflict (Caprioli and Boyer 2003; Melander 2005; Regan and Paskeviciute 2003). Dollar, Fisman, and Gatti (1999) even find that the higher the number of women in the parliament, the lower the level of corruption.

Education and the number of women in the labor force also play an important role in encouraging political participation, whether through voting, lobbying, or running for office (Zimmerman 1994). In contrast, a study conducted by Kenworthy and Malami (1999) found that when accounting for professional occupations, no statistically significant relationship is found between the attainment of education and the level of gender inequality in political representation. Melander (2005) uses a dichotomous indicator of whether the highest leader of a state is a woman and finds no significance in a woman in this position and lower levels of intrastate conflict.

Since this study, however, several women have been elected to the presidency of their country: Ellen Johnson Sirleaf in Liberia, Michelle Bachelet in Chile, Angela Merkel in Germany, and Portia Simpson-Miller in Jamaica. Since the election of Ellen Johnson-Sirleaf, conflict has not recurred in Liberia and emphasis has been placed by the government on the education of women, which I will discuss further in the study.

Women as marginalized group of society. The impact of women as a marginalized group in society has rarely been incorporated into the larger literature that explains the relationship between inequality and the occurrence of conflict. In discussions regarding representation in electoral systems, Zimmerman (1994) places women in the same category as minorities. Lijphart's (1969) *consociational democracy*, a government arranged "to turn a democracy with a

fragmented political culture into a stable democracy,” addresses issues surrounding exclusion (216). Within this democratic transition, those in positions of political leadership have the ability and commitment to “accommodate the divergent interests and demands of the subcultures” as well as transcend social cleavages “to join in a common effort with the elites of rival subcultures” (216). While Anderlini (2007) asserts that gender can cut across social cleavages, Htun (2004) suggests that the mobilization of women for quotas disappears once women enter political office and women revert to their prior political and ideological commitments, their goal having been achieved. (439). Finally, “regardless of whether women have a positive or negative impact, they, like men, have a right” to political, economic, and social participation in society (Anderlini 2007, 3).

I now draw a connection between gender inequality and how the exclusion of women from political and economic participation can serve as a detriment to political stability and economic growth.

Theory

Making up at least 50 percent of the population, women are the most politically marginalized cross section of society, regardless of ethnicity, religion, political affiliation, or class, (Anderlini 2007, 126) and while the forms of gender relations may vary across different cultures, they are almost always unequal (Scott 1986). Women’s experiences during conflict only augment the extent to which their needs and participation in society remain on the periphery of national and international focus in the peace building process. Brittain (2004) identifies five factors that contribute to the deterioration of peoples’ lives during conflict: displacement, psychosocial problems, HIV/AIDS, economic impoverishment, the destruction of education, and sexual violence. Each of these components has a particularly significant effect on the well being

of women, reinforcing their low-status in many countries (43). Many women suddenly become the sole breadwinner and head of household and the family becomes vulnerable to medical and social deterioration due to war, and/or become “disadvantaged refugees” (Karam 2001, 3-5). As of 2009, there were 43 million people in the world forcibly displaced by conflict, 47 percent of whom were women and girls and 41 percent of whom were under the age of eighteen (UNHCR). In many refugee situations, men are the first to receive whatever resources are distributed. Such “unequal access to resources leads to further weakening of women’s political, social, and economic conditions” (Karam 2001, 5).

Women are also mobilized as soldiers and fall victim to sexual violence or prostitution (3, 5). Despite the tremendous impact these specific repercussions of war have on women, women’s rights are “generally the most ignored and under-enforced category of norms” (Aolain 2006, 9). Only in the last decade have gender inequality issues come to the surface in the context of peace building. The political, social, and economic inclusion of women in a post-conflict society can serve as a mechanism for achieving stability and durable peace.

In the context of peace building, liberal internationalism dominates the method in which the international community engages in post-conflict reconstruction (Paris 1997). Political and economic liberalization, through the establishment of a liberal democracy and market-oriented economy, is encouraged, although this “paradoxically encourages societal competition as a means of achieving political stability and economic prosperity” (57). In response, Paris (1997) proposes strategic liberalization as a means of building peace that supports the establishment of liberal democracy and a market economy while acknowledging the institution of these mechanisms is a long process (58). One suggestion of gradually building towards

democratization is through the “the promotion of citizen associations that cut across cleavage lines” (57).

In some cases, women have come together to facilitate cooperation across ethnic divisions, as gender cuts across social cleavages. Women can use their “gendered identities and social experiences” where political, ethnic or religious identities are at the root of conflict (Anderlini 2007, 126). Women have formed cross-party caucuses around common issues and interests that specifically tend to affect women (Anderlini 2007). An example of this is seen in Rwanda in the formation of the Forum of Women Parliamentarians who “unite as women, irrespective of political parties” and cogitate “the challenges that surround [them] as women” (140). In order to ensure gender equality, these women review laws and offer amendments to discriminatory statutes (140). This forum, working with women’s groups, aided in the revocation of laws that prohibited women from inheriting their husband’s land; the group also pushed for the adoption of a law banning discrimination against women (Anderlini 2007, 140; Longman 2006, 138, 145).

It is important to note that the political, economic, and societal inclusion of women is not limited to democracy. Hegre et al. (2001) found that the risk of civil war in harsh autocracies and strong democracies is not significantly different (44). While women in political positions give voice to a marginalized part of society, there is skepticism about their ability to truly influence policy, especially in the peace building process. The access of women into parliament might serve “more as an instrument of legitimizing and preserving RPF power” (147). The inclusion of women on a political level is important; however the effect of including women is evident economically and socially as well.

Education can stimulate women's political participation as well as economic growth, both of which are important aspects of post-conflict reconstruction (Herz and Sperling 2004).

Individuals and countries benefit economically and socially from investing heavily in education (Schleicher 2008), which is very important to post-conflict reconstruction. Gender inequality is very evident by the literacy and education gap between men and women. Worldwide, 104 million children, ages 6 -11, are not in school each year and 60 million of these children are girls (Herz and Sperling 2004). Additionally, 150 million children currently enrolled in school will drop out before completing primary school and at least 100 million of these children are girls (2). The gender gap in secondary education, "where the acquisition of cognitive skills is crucial for national economic growth", is much wider (Tembon 2008). The implications for women and girls are extensive. In fact, investment in female education in order to reduce the existing gender gap is "one of the most worthwhile investments available to governments" (Abu-Ghaida and Klasen 2004, 23). Each year of schooling for girls reduces infant mortality by 5 to 10 percent (Shultz 1993, 58) and the education of women and girls also affects rate of fertility and malnutrition (Abu-Ghaida and Klasen 2004). Reduction in fertility rates and malnutrition helps households out of poverty by reducing dependency ratios and raising per capita spending (Tembon 2008). More equal education between men and women in sub-Saharan Africa could have led to an annual per capita growth nearly one percent higher during the period from 1960 to 1992 (Klasen 1999 in Herz and Sperling 1004). In Kenya, crop yields would rise 22 percent if women farmers had the same education and inputs as male farmers (Quisumbing 1996).

"Education, especially literacy and numeracy, is precisely what girls need during and after armed conflict" (Machel 2001, 32). Studies in Bangladesh (Asadullah 2006), India (Kingdon 1998; Kingdon and Unni 2001), Indonesia (Behrman and Deolalikar 1995) and

Pakistan (Aslam 2007a) found that returns to society from the education of women are higher than for men (Aslam, Kingdon, and Soderbom 2008). In Pakistan, returns from literacy for women are more than six times as high as wage employment and three times as high in self-employment as men (Aslam, Kingdon, and Soderbom 2008).

There exists significant evidence that gender equality impacts political stability and economic growth. The participation of women in parliamentary positions in Rwanda has aided in healing crosscutting ethnic and social cleavages as well as securing women's rights. Democracy and a prosperous economy are not necessary in order to include women. Economic and political inclusion of women can serve as a steppingstone to a stable government and economic growth, both of which are important to sustaining peace. Therefore, the importance of the political and economic inclusion of women leads to the following hypothesis:

H1: The greater the gender equality in a post-conflict society, the more likely peace will endure.

Research Design

This study examines the impact of gender equality on post-conflict peace. Equality is defined as equal political, economic, and social access afforded to all people in order for each person to be able to equally participate in society (Pateman 1970; Caprioli 2000). Social equality “can be understood as the relationship between and among individuals in which individuals do not constrain one another,” therefore gender equality “must be measured based on social equality” (Caprioli 2000, 58; Oppenheim 1961). Measures that adequately gauge the social pressures that restrain women from participating in society to the same extent as men do not exist (Caprioli 2000). Also, cultural factors have an influence on the participation of women in society. For example, it is a challenge to determine whether a woman chooses to be a

homemaker or if that is her only option (Caprioli 2000). Each measure in this study accounts for gender equality on a political, economic, and social level.

Those states in which a civil war has occurred make up the population of cases in this study. There were four times as many civil wars as inter-state wars between 1945 and 1997 (Mason 2007). The population of cases for this study is based on the PRIO Armed Conflict Dataset. Due to the constraints of my key independent variables (which I will discuss in greater detail below), I consider all countries in which civil war occurred between 1946 and 2008. The unit of analysis is *post-civil war peace-years*.

Dependent Variable

The dependent variable tested is the number of years peace has endured since the end of civil conflict. This duration of peace is accounted for once a conflict has ended and continues until a new civil war recurs. *Duration of peace* is used to indicate this variable. The duration of peace ends when a new civil war begins (Mason 2008).

Independent Variable

Previous studies focusing on the relationship between gender equality and duration of peace as well as economic growth use level of education rather than literacy as a measurement for inequality (Melander 2005; Klasen 2000; Abu-Ghaida and Klasen 2004). Most civil conflict has taken place in the developing world where access to higher levels of education (secondary and tertiary) is limited and civil war only augments this lack of access. Therefore, the observation of literacy is a more pragmatic approach to determining an individual's functionality within society.

Literacy is the key independent variable used in this study to test the hypothesis that gender equality has an impact on the *duration of peace* in post-conflict societies. Literacy is a

critical component of formal education and enables individuals to learn new skills in the classroom and workplace, while assuming their rights as well as responsibilities in society (UNESCO 2006). According to Stromquist (1992) “illiteracy is a social condition that reflects structural inequalities and the discrimination built into social institutions” (58). Literacy rates represent an individual’s ability to participate socially, economically, and politically within a society. Male and female literacy rates will be adopted from the UNESCO dataset (<http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx>), when available. Literacy is defined in this dataset as “the ability to read and write with understanding a simple statement related to one’s daily life. It involves a continuum of reading and writing skills and often includes basic arithmetic skills (numeracy) as well” (<http://www.uis.unesco.org/glossary/Term.aspx?name=Literacy&lang=en>). A literacy ratio is created by dividing the percentage of male literacy in a state by the percentage of female literacy.

Control Variables

Several studies (e.g., Fearon and Laitin 2003, Collier and Hoeffler 2004, Sambanis 2004) have found a strong relationship between the level of economic development and the probability of civil war onset across model specifications and datasets (Mason et al. 2008). To measure the level of economic development in this study I use GDP growth. This demonstrates economic development in a state on a year-to-year basis. This variable is referred to as *GDP growth*.

Next, I control for several factors that also influence the recurrence of war in a post-conflict society. First, the duration of previous civil wars affects the probability of winning and the amount of time actors have to fight in order to achieve victory should they choose to resume fighting. Previous *war duration* in years is used to control for this.

I also control for a country's regime type using the Polity 2 measure from the Polity IV data series v.2008, available at www.systemicpeace.org/polity/polity4.htm. These data range from -10 to 10, with -10 being the least democratic and 10 being the most democratic. I use these to create a dichotomous variable, which equals 1 if a country's polity score is equal to or greater than 6 and 0 otherwise. This is done in an attempt to consider whether or not the level of democracy is significant to the attainment of gender equality. This variable is referred to as *Democracy*.

Lastly, I control for settlement. Licklider (1995) finds empirically that civil wars that end in a negotiated settlement are more likely to resume armed conflict. This variable is referred to as *settlement*.

Methodology

A Cox's proportional hazard model is used to test and analyze the relationship (or lack thereof) between gender equality and duration of peace in post-conflict societies. This survival model assesses the risk or hazard rate of peace failure (i.e., civil war recurring) in a given year while taking into account the length of time a country has been at risk along with the independent variables. Factors that shorten the *duration of peace* increase the hazard rate compared to the baseline hazard, whereas factors that prolong the *duration of peace* decrease the hazard rate (Mason et al. 2008). Cox hazard models allow for me to account for right-censoring in the data, which distinguishes cases that experience failure in the time period studied from those that do not (Jones 2005). Failure to account for right-censored cases can lead to misleading results (Box-Steffensmeier et al. 2003; Box-Steffensmeier and Jones 2004). The Cox model does not "parameterize time dependency," which allows me to test and control for the possible non-proportionate effects of each variable (Box-Steffensmeier et al 2003, 42). Failure to control

for non-proportional hazards can lead to “false inferences about a variable’s substantive and statistical significance” (Box-Steffenmeier et al 2003, 34; also see Box-Steffensmeier and Zorn 2001; Box-Steffenmeier and Jones 2004).

Prior failure of peace or recurrence of civil conflict is important to control for because a country is more likely to experience a civil war if it has experienced one already (Mason 2007). Also, within this dataset, cases exist in which more than one civil war and duration of peace is observed for a particular country. In response to this issue my model is stratified by a count variable that differentiates between the *duration of peace* that follows the initial civil war and the potentially more fragile peace that follows a second, third, or fourth civil war (Mason et al. 2008). This stratification allows for multiple baseline hazards, which helps avoid biased estimates (Box-Steffenheiser and Jones 2004).

Analysis

My analyses contain 78 cases combined with a total of 677 *peace-years*. Of these, peace failed or relapsed into civil war 27 times in the period under study (1980-2007). My hypothesis suggests that greater gender equality in a post-conflict society will increase the likelihood of peace enduring. The results of the Cox hazard model used to test this relationship between gender equality and the duration of peace are summarized in Table 1. Hazard ratios, robust standard errors, and p-values are reported. Hazard ratios greater than one denote a reduction in the *duration of peace*, whereas hazard ratios less than one indicate an increase in the *duration of peace*.

I test my model using the female-male literacy ratio as my key independent variable in this study. A literacy ratio closer to one indicates equality between men and women, whereas a ratio closer to zero indicates the extremes of gender inequality. The female-male literacy ratio

varied from 0.165 to 1.005, with a mean of 0.796 and standard deviation of 0.199. A statistically significant relationship is found between the literacy ratio and *duration of peace*.

The hazard ratio for literacy indicates that for every unit of change in the literacy ratio towards equality (1) the hazard of war recurring is reduced by 69 percent (Please refer to Table 2.) *This test supports my hypothesis that greater gender equality in a post-conflict society decreases the likelihood of recurrence of conflict.*

Holding all other variables constant at their baseline hazard rates, Figure 1 reveals the impact of gender equality measured by the ratio of female and male literacy rates on the *duration of peace*. The greater the gender equality, the longer peace will last in a post-conflict society.

The control variable, *GDP growth*, is strongly significant, emphasizing the importance of development in post-conflict societies, as shown in Table 3. Interestingly, when *GDP growth* is taken out of the model, the literacy ratio is only decreased by 3 percent and remains statistically significant.

The *previous civil war* variable does not exhibit a strong relationship. Previous findings that once a country has experienced one civil war it is more likely to experience another civil war are not significant when gender equality is accounted for (Mason 2007). The control variable, *democracy*, does not display a statistically significant relationship, either. However, it does not appear to move the hazard rate in the opposite direction, thereby augmenting an increase in the *duration of peace*. The final control variable in this study, *settlement*, also does not exhibit a statistically significant relationship. None of these control variables detract from the *duration of peace*, but my model suggests these factors are less significant when gender equality is accounted for.

While this study suggests that greater gender equality impacts the *duration of peace* in post-conflict societies, additional research and examination are needed, and more extensive and detailed data on literacy rates would aid in continued research. Literacy rates are unaccounted for in many countries, which limits the number of cases in cases in this study. Also, while literacy rates account for more social and economic inclusion of women, it is important to look at the relationship between gender equality and the duration of peace on a political level. Adding the number of women in parliament to this dataset will create opportunities for future research and add to this study.

Conclusion

The purpose of this paper was to conduct an empirical analysis of the relationship between gender equality and the duration of peace in a post-conflict society. Many studies have justified including women based on the relationship between women and peace, either as biological reality or social construct. Previous studies have found that gender equality affects whether or not a state will engage in conflict. My study approached gender equality through the concept of including a marginalized group of people and sought to contribute to this literature by looking at the impact of gender equality and post-conflict peace. As such, this paper examined the duration of peace following all cases of civil war from 1980 to 2007.

Based on the evidence, gender equality appears to increase the *duration of peace* in a post-conflict society. This has important policy implications for national governments and the international community participating in post-conflict reconstruction. More resources should be allocated towards education, specifically to the education of women and children. These resources should encourage the adoption of policies and practices that emphasis the importance of educating women and children. Studies have shown that education of women reduces infant

mortality, fertility rates, and malnutrition, all of which perpetuate poverty and impede development. The education and literacy of women also produce significant economic returns.

An example of the allocation of resources and implication of policies and practices is evident in Liberia. The last three years of the fourteen-year civil conflict in Liberia “brought the education sector to a near total collapse” and destroyed 95 percent of Liberia’s infrastructure (The Ministry of Education and Partners 2008, 1). By the end of the civil war in 2003, only 33 percent of primary school students reached fifth grade, and only 12 percent of Liberian girls graduated from secondary school (United Nations International Children’s Education Fund (UNICEF) 2005, 2).

In her inaugural address, Ellen Johnson-Sirleaf (2006) stated, “My Administration shall empower Liberian women in all areas of our national life” and emphasized her “passion and commitment to gender equity and the education of the girl child” foreshadowing the issues she would confront in the process of rebuilding a war torn state. Since her election in 2006, the Liberian government has responded to these issues by implementing adult literacy programs all over Liberia and created literacy programs specifically for women to provide them with skills training as well as micro-credit for graduates to set up businesses (Committee on Elimination of Discrimination against Women (CEDAW) 2009). UNICEF (2005) partnered with the Ministry of Education to build 115 community schools in both urban and rural areas with Accelerated Learning Programs (ALP), gender equal programs that condense six years of primary school into three years. The Government also built five secondary schools in an effort to increase girls’ enrollment in school in rural areas (CEDAW 2009). Plans that enable girls to live in a hostel while attending schools away from home, as well as evening classes for pregnant girls who are encouraged to return to their regular school after giving birth, were adopted as well (9). The

Liberian Education Trust (LET), a joint Liberian-U.S. effort, awards scholarships to young girls to attend any secondary or university level school of their choice (The Ministry of Education and Partners 2008, 7). In 2006-2007, LET supported twelve local Non-Governmental Organizations (NGOs) to help one hundred women per NGO become literate. As a result, 1,300 women completed the basic level literacy course (7).

These efforts in Liberia provide an illustration of feasibility concerning the implementation of resources, policies, and practices regarding the education of women. The impacts of these measures taken by the government of Liberia have not fully come to fruition, but my study supports the idea that such steps will contribute to the duration of peace in Liberia. Further research is still necessary to establish a relationship between gender equality and the duration of peace. Literacy rate data is limited, which also limits our ability to discover the full extent to which gender equality impacts the duration of peace. My study did not cover the political aspects of gender equality, so a future study should include the number of women serving in parliament in post-conflict countries. This will measure the impact of the political inclusion of women on the duration of peace in a post-conflict society.

The inclusion of women is vital to the reconstruction of war torn countries. This study also supports the notion that gender equality can lead to economic development, rather than economic development leading to the inclusion of women. Local and national governments, as well as the international community, should appropriate more effort and resources to promoting the political, social, and economic inclusion of women in post civil-war societies. Gender equality can lead to political and economic stability.

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Table 1: Descriptive Statistics of Variables

Variable	<i>n</i>	Mean	Std.Dev	Min	Max
Male/Female Literacy Ratio	1048	0.796	0.199	0.165	1.005
Democracy	1326	-0.165	6.971	-10	10
Prior Civil War	1711	0.353	0.478	0	1
GDP Growth	836	4.137	7.813	-50.248	106.28
Settlement	1708	0.249	0.432	0	1

Table 2: Cox-Hazard Model Results

Variable	Hazard Ratio	Robust Std. Err.	P > z
Female/Male Literacy Ratio	0.183	0.145	0.032
Democracy	1.016	0.038	0.662
Prior Civil War	1.03	0.395	0.944
GDP Growth	0.950	0.010	0.000
Settlement	1.055	0.502	0.911
<i>n</i> = 677		*observed in years	

Table 3: Cox-Hazard Model results without GDPgrowth

Variable	Hazard Ratio	Robust Std. Err.	P > z
Female/Male Literacy Ratio	0.216	0.164	0.043
Democracy	1.006	0.030	0.849
Prior Civil War	1.147	0.361	0.664
Settlement	0.764	0.318	0.518
<i>n</i> = 677		*observed in years	

Figure 1. Survival of Peace with Female/Male Literacy Ratio