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Testing the Universality of the Gender Equality–Peace Thesis: The Influence of Increased Gender Equality on Terrorism in Turkey

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Gender inequality has been empirically linked to the incidence of terrorism, as a motivator for women’s involvement in terrorism, and political and social violence more generally. Although these studies demonstrate that advances in gender equality on average decrease terrorism, it is unclear how these influences translate to individual nations or conflicts. As Turkey has witnessed consistent but unequal regional advances in gender equality, it provides an ideal setting to examine how these developments have influenced terrorist violence. Analyzing data from Turkey’s 81 provinces from 2000–2013, this study finds important regional differences in the influence of gender equality on terrorism.

Keywords gender equality; terrorism; Turkey; gender equality-peace thesis

INTRODUCTION

Gender permeates all levels of culture and politics (Staudt, 2018) and in recent years has been recognized for its influences on terrorism (Berrebi & Ostwald, 2016; Harris & Milton, 2016; Robison, 2010; Salman, 2015; Younas & Sandler, 2017). Gender is associated with the decisions of those who commit terrorism (Berko, Erez, & Globokar, 2010), the broader societal significance attributed to terrorist attacks (Laster & Erez, 2015; Nacos, 2016), and the rate of terrorist attacks (Harris & Milton, 2016; Salman, 2015; Younas & Sandler, 2017). As such, there is a growing body of empirical literature demonstrating both the direct and indirect effects of gender equality on terrorism. Following the broader gender equality–peace thesis (Wood & Ramirez, 2018), reductions in societal tolerance for violence and the ability to use gendered language and stereotypes to support calls for violence are among the suggested

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mechanisms for these aggregate trends (Caprioli & Boyer, 2001; Tessler & Warriner, 1997). With the 20th and 21st centuries witnessing the global disintegration of traditional segregated gender roles (Inglehart, Norris, & Ronald, 2003), there is growing confidence that gender plays a pivotal role in the expression of terrorism globally.

Developments in women's empowerment and gender equality have varied immensely across nations (Kabeer, 2005) and within them (Fisher, 2018). As such, additional access to educational opportunities, public life, and the paid labor force across an entire nation (Inglehart et al., 2003) may mean little for specific communities and individual women. Particularly due to the intersection of patriarchal attitudes and political violence (Hasan, 2002), women who experience more isolation and marginalization also experience aggregate gains for gender equality to a lesser extent (Kandiyoti & Kandiyoti, 1987). Particularly if the diminished impacts of policies aimed at increasing gender equality are due to existing masculine power structures acting to retain their power, or if viewed as an additional grievance with the government, this may increase the incentives for terrorism. This suggests that although policies enforcing women's rights may promote the ability of women to act as veto players in the radicalization process generally (Harris & Milton, 2016), these findings do not preclude these policies from resulting in increased terrorist violence within specific conflicts. Whether through backlash (Argomaniz & Vidal-Diez, 2015; LaFree, Dugan, & Korte, 2009), due to perceptions of more mild government responses to terrorism (Bakker, Hill, & Moore, 2016), or additional political deadlock (Young & Dugan, 2011), regions with weak existing bureaucratic institutions have been observed to witness increases in terrorism with increased female participation in society (Younas & Sandler, 2017). Exacerbated by the discrepancy between gender equality attitudes and outcomes (Salman, 2015), this study highlights the importance of examining the impacts of different expressions of gender equality and unique social contexts to better understand the relationship between gender equality and terrorism.

Examining the relationship between gender equality and terrorism in a non-Western and non-English-speaking context, this study focuses on the experiences of women in Turkey. Turkey is historically a secularist state and has advocated for increased gender equality since its inception as a nation in 1923 (Keskin, 1997; Tekeli, 1981). Influenced by centuries of traditions from both the Middle East and Europe (Özcan, 2006), the reaction to changes in gender equality varies markedly across the geography of Turkey (Kandiyoti & Kandiyoti, 1987). Gender equality is a "cultural fault line between the West and Islam" (Norris & Inglehart, 2002, p. 235), and traditional gender roles enshrined in local Islamic traditions remain strong within the Southeastern region of Turkey despite their erosion in the more Westernized regions. Particularly in areas of the Southeast that have shown opposition to the Turkish government and its historic treatment of religious minorities (Köker, 1995; Natali, 2005), gains in gender equality have been insulated from national and international trends (Dokupil, 2002; Keskin, 1997). Drawing on data from all 81 Turkish provinces, this study tests whether a range of elements of gender equality and changes in gender equality impact both terrorist fatalities and terrorist attacks. After examining whether the gender equality–peace thesis generalizes to Turkey, this study then explores the possibility for regional differences in this relationship.

INFLUENCES OF GENDER EQUALITY ON CRIME AND TERRORISM

The relationship between gender equality and terrorism is complex, and the rapidly growing literature has revealed robust empirical links between varying elements of gender equality and terrorism. Since Jacques and Taylor (2009) noted a dearth of quantitative examinations of the impacts of gender equality, advances in data analysis techniques and availability of data have enabled scholars to test these hypotheses in a growing number of high quality studies across several social science disciplines. These analyses have produced evidence that increases in women’s rights (Harris & Milton, 2016), female labor force participation (Berrebi & Ostwald, 2016; Robison, 2010; Salman, 2015), cultural attitudes toward gender equality, average years of education of women aged 25 and older, and representation in governance (Salman, 2015) have all been found to be negatively related to terrorism and conflict in studies covering dozens of nations across numerous decades.¹

The relationship between gender equality and violence is not limited to terrorism, however. Terrorism is not the only form of violence used within conflicts, and terrorist groups can be strategically sophisticated and employ a variety of violence types (see Dishman, 2001; Fisher & Meitus, 2017; Fortna, 2015; Gruenewald, Chermak, & Freilich, 2013). As such, the impacts of gender equality should extend beyond terrorism and be related to other elements of conflict. Providing credence to these wider links between gender equality and violence, both the physical security of women (Hudson, Caprioli, Ballif-Spanvill, McDermott, & Emmett, 2009) and the fertility rate (Caprioli, 2005) are negatively related to domestic conflict more broadly. All sharing the same gender equality–peace thesis, these studies thus provide a range of support for the theoretical claim that “the risk of large-scale political and social violence declines as traditional gender hierarchies are eroded and replaced by norms of gender equality” (Wood & Ramirez, 2018, 345).

Not all elements of gender equality have been found to be negatively related to terrorism, however. Postulating that “male-poor societies ... are prone to challenges in manufacturing, agriculture, and resource extraction,” Younas and Sandler (2017, p. 484) provided evidence that female gender imbalances result in increases in terrorism, particularly in nations with weak bureaucratic institutions. Although most of the variation in gender ratios in this study was between nations, and it is unclear whether these gender imbalances are a consequence of the same conflicts that also gave rise to terrorism, these findings were robust across a wide array of sensitivity tests. There is also evidence linking gender equality to more repressive government responses to violent conflict. Koch and Fulton (2011) further found that the presence of female executives increased both conflict behavior and defense spending, demonstrating that a positive relationship exists between some elements of gender equality and conflict. Rather than challenging the findings of the aforementioned studies, these findings may instead be the product of both the range of nations studied and the specific attribute of gender equality examined. Consequently, although many indicators of gender equality may adhere to the gender equality–peace thesis, there is empirical evidence to suggest that this relationship may be more nuanced in reality with the potential for some elements of gender equality to be related to increased violence.

Collectively these studies have revealed that globally there are many robust links between the role and prominence of women within society and political violence. These studies have

clearly established empirical links between a growing variety of aspects of gender within society that are evident across dozens of nations and decades of time. Although these findings are vital for establishing the empirical validity of the theoretical claims connecting gender equality and reductions in violence broadly, these research designs are unable to discern more precise gendered mechanisms that can influence individual conflicts. Consequently, studies that examine multiple forms of gender equality simultaneously within specific nations are needed to further disentangle these findings from their methodological decisions.

Theoretically, these studies have raised additional concerns for this body of literature. As expressed by Wood and Ramirez (2018), this body of literature often discusses and tests the relationship between national-level constructs and political violence, while appealing to theoretical “arguments [that] lie at the level of individual attitudes and beliefs about the appropriate roles and treatment of women within a society” (p. 347).² Also criticizing the singular and “blunt indicators” that are used as proxies for societal norms and beliefs, Wood and Ramirez (2018, p. 350) concluded that at present the theoretical mechanisms for this relationship are only modestly understood. In their own study, they address this concern and provide support at the micro-level for the hypothesis that gender-equality is negatively related to support for the use of force to achieve security objectives (Wood & Ramirez, 2018). Their findings thus enhance the empirical support for the theoretical arguments of the underlying gender equality–peace thesis. As terrorism is a rare event and most of those who harbor support for political violence never commit terrorism (Bartlett & Miller, 2012), individual-level studies are unlikely to detect statistically significant relationships with violence or social influences (Lynch, 2011). Further, as gender is at least in part socially constructed and thus cannot be reduced to purely individual-level phenomena (Lorber & Farrell, 1991), some level of geographic aggregation is necessary to observe the impacts of gender equality on expressions of political violence.

POTENTIAL IMPACTS OF INTERSECTIONALITY

Gender is interconnected with race, class, sexuality, and age (Crenshaw, 1989, 1991). These systems of power operate in conjunction with one another as described by Zinn and Dill (1996):

Class, race, gender, and sexuality are components of both social structure and social interaction. Women and men are differently embedded in locations created by these cross-cutting hierarchies. As a result, women and men throughout the social order experience different forms of privilege and subordination. (p. 327).

Individuals experience a matrix of privilege and oppression, shaping the experiences and impacts of gender (Collins, 2000). Within the feminist literature in criminology it has thus been recognized that one cannot assume that the lives of White, middle-class women represent all women's experiences—essentializing gender (Kandiyoti & Kandiyoti, 1987). As part of the feminist movement away from primarily examining the lives of White, middle-class women, the multiracial feminist movement has attempted to redress previous ethnocentrism. Also known as intersectionality, this feminist perspective posits that gender relations occur

within a complicated milieu of class, sexuality, race, age, physical ability, and other locations of inequality (Burgess-Proctor, 2006). Rather than operating individually, these loci of power and inequality interact to form one’s social location (Burgess-Proctor, 2006), and as such these social inequalities should be understood as multiple and interactive influences on gendered social relations (Daly, 1993). With this in mind, tacit assumptions regarding the notion that the experiences of women can be generalized across culture and time may serve to undermine scholarship seeking to understand the complex and interlocked relationship between gender and crime.

These advances in the feminist literature are central to understanding the existing literature on gender equality and terrorism. From this perspective, expressions of gender that can be coded quantitatively on a single dimension can still obscure key elements of diversity, variation, and heterogeneity (McCall, 2005). As such, intersectionality allows for gender imbalances to be connected to increased terrorism in some settings (see Younas & Sandler, 2017), although gender equality is generally related to less terrorism (see Harris & Milton, 2016; Salman, 2015). Moreover, the introduction of legislation protecting or affirming women’s rights may reduce existing gendered tensions but also exacerbate other religious or social tensions. Similarly, the perception of gender and its links to power would also shape the influence of gender imbalance. The aggregated findings produced by studies of numerous nations over dozens of years may thus yield little tangible insights into the complex interplay between gender and terrorism in any specific context. McCall (2005) highlighted that case studies are instead better able to reveal important *within*-unit differences. This does not discount the value of macro studies, however, and instead highlights that studies conducted at multiple levels of aggregation will yield more valuable insights in concert with one another than they can individually.

Although broad racial, national, class, and gender structures of inequality have an impact and must be discussed, they do not determine the complex texture of day-to-day life for individual members of the social group under study, no matter how detailed the level of disaggregation. (McCall, 2005, p. 1782).

This study aims to contribute to this goal by exploring the relationship between multiple facets of gender equality on terrorism at both the national and subnational level in Turkey.

TURKEY

Turkey provides a rich and illuminating context for further elucidating the relationship between gender equality and terrorism. Gender equality has been a prominent social and political issue within Turkey since it became a nation in 1923. Public appeals to women as the group most visibly oppressed by religion through practices of polygamy, veiling, and seclusion were central to political unification after separation from the previously theocratic Ottoman state (Tekeli, 1981). After achieving nationhood, Turkey embarked on a political and social process of “Turkification” that attempted to enshrine secularism in the nation. The “Turkification” process embraced Western social values, and increases in gender equality were experienced across Turkey (Dokupil, 2002). Women gained increased access to

educational and health resources, and increases were also seen in family domains such as marriage and fertility. These gains, however, were not consistent across Turkey geographically. Indeed, these changes were resisted in many parts of Turkey, with patriarchal dominance continuing to be prevalent in the more isolated and mountainous Southeast region (Kandiyoti & Kandiyoti, 1987). Continuing into the 21st century, women in this rural and more religious region have continued to have less access to higher education and experience marriage and child-bearing differently than women in the rest of Turkey (Fisher, 2018).

Turkey's complicated history of conflict has not been limited solely to gender equality. As part of the secularization of Turkey, the Kurdish people who primarily inhabit the Southeastern region were systematically and legally marginalized from Turkish society (Dokupil, 2002; Köker, 1995; Natali, 2005). The Kurdish people constitute approximately 20% of Turkey's population and inhabit approximately 30% of its geographical land mass (Sirkeci, 2000). Despite their meaningful contribution to Turkey's population, economy, and political viability, the largely Islamic Kurds have and continue to be marginalized as the country has grown (Natali, 2005). Among other actions, during the "Turkification" period, the Turkish government prohibited the word "Kurd," banned the Kurdish language, and prohibited parents from giving their children Kurdish names (Dokupil, 2002; İçduygu, Romano, & Sirkeci, 1999). Although there have been some improvements in the last several decades as Turkey has embraced nonsecular political parties within national politics (Natali, 2005; O'Neil, 2007; Wuthrich, Ardağ, & Uğur, 2012), there is persistent evidence that Kurdish people in Southeastern Turkey continue to struggle for equality (İçduygu et al., 1999; Natali, 2005). These power struggles and ongoing marginalization of such a sizeable portion of the population set the stage for intrastate conflict between Kurdish groups and the Turkish government. As displayed in Figure 1, the Southeastern majority Kurdish region includes 21 of the 81 provinces in Turkey.

The conflict between the Turkish government and the Southeast is exemplified by the Leftist terrorist organization *Partiya Karekeren Kurdistan* (PKK). The PKK grew out of political upheaval during the 1960s and '70s, and has been closely linked to the plight of the Kurdish people despite its origins as a Marxist/Leninist group (Rodoplu, Arnold, & Ersoy, 2003). Frequently described as Turkey's largest problem, this conflict has been used as the justification for the strong influence that the Turkish Army has had over political life, Turkey's bad human rights record, and the economic strain of the entire nation (Dokupil, 2002; *Economist*, 2013; Köker, 1995; Natali, 2005). Responsible for more than 2,100 terrorist attacks in Turkey since 1970 (START, 2018),³ the majority of terrorism-related deaths in the country have been attributed to the PKK (Rodoplu et al., 2003).

Due to its disparate history of conflict within Turkey, the Southeast sits at a unique intersection of terrorism and gender equality compared to the rest of the nation. Particularly if the impacts on terrorism are dependent on the level of gender quality in an area, these subnational differences may result in qualitative differences in this relationship. Based on these considerations, we assess each hypothesis first on all of Turkey and then in separate models that examine Southeast Turkey as compared to the remainder of the country. This is a critical step in appreciating and attempting to understand better the importance of regional differences in the relationship between gender equality and terrorist events and fatalities.

PRESENT STUDY

Drawing on the previous discussion, this study sought to test whether a range of elements of gender equality were related to decreases in both terrorism and terrorist fatalities. As with gender equality, there are many elements of terrorism. To begin to explore these facets, this study expands on the previous literature by also examining the impact of gender equality on fatalities. Through including this additional dependent variable, this study avoids making the assumption that all terrorist attacks are equivalent in violence. This study used two-tailed hypothesis tests in all analyses to reflect the prominent gender equality–peace thesis and the potential for gender equality to exacerbate the social, political, and religious tensions related to terrorism. For the gender equality–peace thesis to be supported, a negative relationship would exist for both hypotheses 1 and 2. If, however, an element of gender equality aggravated terrorist violence, a positive relationship would be reflected in the tests for hypotheses 1 and 2.

H1: Gender equality is related to terrorist attacks

H2: Gender equality is related to terrorist fatalities

Addressing the aforementioned criticism that previous studies have relied on between-unit differences to examine the gender equality–peace thesis, the second set of hypotheses specifically focused on within-unit variation. These tests were designed to better examine the marginal impact of changes in gender equality to assess whether any impacts seen from the models testing H1 and H2 are more than a function of enduring political environments that limit both gender equality and are conducive terrorism. If true, then we expect that changes in terrorism will also be negatively related to both the count of terrorist attacks and the number of terrorist fatalities. As with the previous hypotheses, we also allowed for the possibility that increased gender equality may result in increased terrorist violence. Although it should be noted that null findings may be due to the lack of within-unit variation (see Younas & Sandler, 2017), there was sufficient within-unit variation in Turkey to observe statistically significant findings for hypotheses 3 and 4.

H3: Changes in gender equality are related to changes in terrorist attacks

H4: Changes in gender equality are related to changes in terrorist fatalities

Finally, as it was argued that the influence of gender equality on terrorism may not be universal, the final hypothesis explored by this study sought to examine whether there were any meaningful differences in this relationship subnationally within Turkey. Although this study highlights that studies that aggregate findings across dozens of nations likely obscure meaningful variation, the primary aim of this final set of analyses was to better assess whether quantitative studies are able to detect regional differences and provide additional insights into the social elements of the gender equality–peace thesis. As terrorism is a rare event, null observed relationships may be due to the reduced analytic sample; however, this study determined that there was sufficient statistical power and variation to assess the impacts of gender equality on terrorism for the period between 2000 and 2013.

H5: The relationship between gender equality and terrorism will be different in Southeastern Turkey compared to the rest of the nation

DATA

Data were compiled from the Turkish Statistical Institute (*Türkiye İstatistik Kurumu*) to measure gender equality in Turkey between the years 2000 and 2013 to test each of the previously mentioned hypotheses. These data reflected yearly fluctuations in each of the 81 Turkish provinces. In order to ensure the correct temporal order of the relationship between gender equality and terrorism, the independent variables in each model were included with a one-year lag. To accommodate this one-year lag, terrorism data were also collected from the GTD for attacks that occurred within Turkey between 2001 and 2014. This enabled the present analysis to retain all observations in spite of this lag structure, yielding an analytic sample of 1,134 observations.

Independent Variables

The independent variables for this study were collected from the Turkish Statistical Institute (Kurumu, 2015). These variables reflect annual province-level data between 2000 and 2013, and were selected in order to account for these three important domains for gender equality: survival and representation; participation in education; and fertility, marriage, and divorce. Within Turkey, Kandiyoti and Kandiyoti (1987) presented that gender equality is primarily evident through access and participation in education, fertility practices, and marriage practices. It is through these practices that patriarchal dominance was established and maintained unevenly across Turkey, and these domains are central to “the uneven socioeconomic development of the country” (Kandiyoti & Kandiyoti, 1987, p. 322).⁴ To measure the relative female participation in education, variables were collected that recorded: the proportion of high school teachers that are female; the proportion of university professors that are female; the proportion of female higher education graduates; and the proportion of female higher education students. Finally, the indicators for fertility, marriage, and divorce were: the average difference in the age of those who were married in each province,⁵ the number of divorces per 10,000 people, fertility rate, and the adolescent fertility rate.

In light of important observations that the participation of women in governance may influence violence and government reactions to violence (Koch & Fulton, 2011), the female proportion of national legislators⁶ was also included to control for this influence and to increase the ability to compare subsequent findings with the existing literature. Finally, life expectancy is a key domain of gender equality, particularly in less developed countries (Williamson & Boehmer, 1997). Relative life expectancy and survival reflect the social status of women in society and are a function of female empowerment within social, economic, and health spheres (Williamson & Boehmer, 1997). Specifically, the variables that were selected to measure relative female survival rates were the female to male life expectancy ratio and the female to male survival until 65 ratio.

Dependent Variables

Data for this study were gathered from the GTD (START, 2018). The GTD contains event-based data pertaining to a range of elements of global terrorist events (LaFree, Dugan, & Miller, 2014). Within this database, terrorism is defined as “the threatened or actual use of illegal force and violence to attain political, economic, religious, or social goals through fear, coercion, or intimidation” (LaFree & Dugan, 2007, p. 184). For an incident to have been included in the dataset, it must contain the following three elements:

1. The incident was intentional (the result of a conscious calculation on the part of the perpetrator);
2. The incident included some observable level of violence or the threat of violence;
3. The perpetrator of the incident was a subnational actor (START, 2018).

In addition to these physical attributes, two of the following three politically oriented conditions must also be met in order for an event to be classified as a terrorist attack and to be included in the GTD:

1. The violent act was aimed at attaining a political, economic, religious, or social goal;
2. The violent act included evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) other than the immediate victims;
3. The violent act was outside the precepts of International Humanitarian Law.

As terrorist attacks vary in their lethality, this study also examined the impacts of gender equality on terrorist fatalities. Within the GTD, the number of fatalities from an attack includes “all victims and attackers who died as a direct result of the incident” (START, 2018, p. 49).⁷ In cases where there are conflicting estimates for the number of deaths, the most recent estimate is used unless this source is of questionable validity (START, 2018).

METHODS

To test the first two hypotheses examined by this study, models were estimated using zero-inflated negative binomial regressions. Zero-inflated negative binomial regression was selected as both dependent variables are count variables, to account for the volume of zero values in the dependent variable as terrorism is a rare event, and in order to avoid potential issues of over-dispersion (Cox, 1983; Ridout, Hinde, & DeméAtrio, 2001). The tests for H3 and H4 were modeled using negative binomial fixed effects regression. In addition to the benefits of the previous models, fixed effects regressions

examine changes in the independent variables on changes in the dependent variable. As such, fixed effects regression was ideal for H3 and H4, which focus on changes in gender equality by isolating the impacts of changes in gender equality net of the actual level. These fixed effects models also account for any unobserved time-stable heterogeneity that exists between provinces (Allison, 2009; Ridout et al., 2001). It should be noted that these methods do not account for any unspecified dynamic heterogeneity in the model within provinces. However, given the difficulty of obtaining data from this region, these strengths of fixed-effects models provide a means for minimizing the potential biases of unmeasured differences between provinces (Fisher, 2018). To test the fifth hypothesis, all models that were used to test the first four hypotheses were rerun separately for the 21 Southeastern provinces and the remaining 60 Turkish provinces. Despite the reduction in sample size inherent in dividing the dataset in this manner, there was still sufficient statistical power to identify statistically significant relationships in all models.

FINDINGS

Descriptive Statistics

All measures of gender equality used in this study demonstrated that women were underrepresented in Turkey with regard to education and political representation. Throughout the period between 2000 and 2013, an average of 6.3% of the national legislature was comprised by women. While women comprised 39.4% of high school students and 41.5% of high school graduates, only 28.7% of teachers and 10.9% of professors were women during this period. It should be noted, however, that nearly all measures of gender equality increased monotonically throughout the observation window. Female life expectancy increased each year from being 73.784 years in 2000 to 77.096 years, the proportion of women surviving until the age of 65 similarly increased from 0.693 to 0.750, and this trend was also evident for the adolescent and adult fertility rates that both declined between 2000 and 2013.

The data collected for this study also displayed clear differences in both gender equality and terrorist violence regionally within Turkey. The married age difference was greater in the Southeast ($\bar{x} = 4.158$) compared to the rest of the nation ($\bar{x} = 4.047$, $p < .001$), divorces were more prevalent outside of the Southeast (14.553 vs. 4.175, $p < .001$), and women were underrepresented in the Southeast in all aspects of educational attainment and participation ($\alpha = 0.01$). For example, women made up only 3.8% of professors in the Southeast compared to 13.4% in the more Westernized provinces ($p < .001$). As it can be seen in [Figure 2](#), terrorism also exhibited different patterns regionally within Turkey. Although both geographic areas displayed a spike in both terrorist attacks and fatalities in 2012, this increase was far greater in the Southeast. Conversely, there were markedly more terrorist attacks outside of the Southeast in 2003 compared to the Southeast, which had relatively little terrorist activity. As such, these descriptive statistics suggest the presence of important subnational variation in both gender equality and terrorism within Turkey.

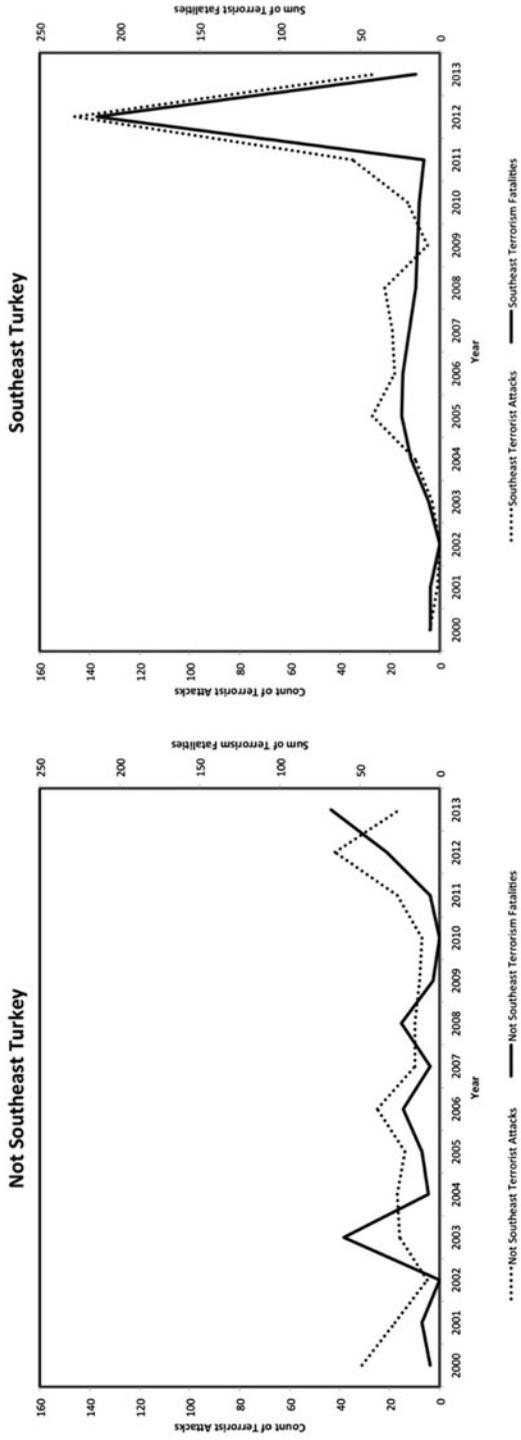


Figure 2. Terrorist attacks and terrorism fatalities in Turkey.

Analyses

Moving to the results of zero-inflated negative binomial (ZINB) and fixed effects models, we see that there is varying support for each of the five hypotheses. First, we discuss results of our analyses for the entire country of Turkey (see [Table 1](#)). For the preliminary models, including all of Turkey, there are indications that specific attributes of increased gender equality are associated with fewer terrorist incidents and fatalities. These findings are consistent across the static models (ZINB) as well as the dynamic fixed effects models that take into account change over time. Variables concerning survival and life expectancy carry significant weight across all four model specifications. As the female to male life expectancy ratio increases, terrorist events and fatalities decrease; thus, if women are expected to live longer than men, there are fewer terrorist events and deaths. However, and in line with the findings from Younas and Sandler (2017), the female to male life ratio of survival until 65 years of age is positive and significant. This indicates that the greater the proportion of women who live to age 65 as compared to men who live to age 65, both terrorist events and fatalities increase.

Interestingly, the education variables exhibit largely null statistical findings throughout all national-level models.⁸ This pattern of null findings ends, however, when looking to the fertility, marriage, and divorce indicators. In line with the gender equality–peace thesis that predicts a negative relationship between gender equality and terrorist events, as the overall fertility rate decreased between 2000 and 2013, terrorist events and fatalities also decreased in the following year. Similarly, as the divorce rate increases and the married age difference declines both terrorist attacks and terrorist fatalities decrease in the following year. These impacts did not persist, however, in the fixed effects models that investigated changes in divorces and the married age difference on changes in terrorism and terrorist fatalities. Echoing the previous finding for female to male survival until 65 rates, decreases in the adolescent fertility rate were related to increases in all terrorism dependent variables. This again suggests that after accounting for multiple measures of gender equality, some aspects of gender equality gains may actually be associated with increased terrorism at the national level.

As discussed previously, Turkey possesses unique differences in geography and population and failure to account for these variations may mask important underlying differences in gender equality and social processes. Thus, the remaining results assess our hypotheses in models that separate Southeast Turkey from the rest of Turkey. We will begin with a discussion of findings for counts of terrorism (see [Table 2](#)), and will continue with results for terrorist fatalities (see [Table 3](#)). Starting with [Table 2](#), one can see that although there are some consistent findings across both geographic regions, there are also crucial differences. In support of our fifth hypothesis, the female to male life expectancy and survival to age 65 ratios continue to be statistically significant and exhibit the same relationship that they did at the national level, with the exception of the count of terrorism in the following year outside of Southeastern Turkey. Moving to the educational variables, we observe varying support for the gender equality–peace hypothesis. Indeed, finding that there is a positive relationship between the female proportion of higher education graduates and terrorist events is contrary to the gender equality–peace thesis. Despite this finding, the female proportion of high school students is negative and significant for the fixed effects models in the Southeast, which is

TABLE 1
Lagged Count of Terrorism and Sum of Terrorist Fatalities in all of Turkey 2000–2013: Zero-Inflated and Fixed Effects Negative Binomial Results

Variable	Terrorism count β (SE)	Fixed effects terrorism count β (SE)	Terrorist fatalities β (SE)	Fixed effects terrorist fatalities β (SE)
Survival and representation				
Female to male life expectancy ratio	-397.938** (153.036)	-1376.363*** (154.998)	-1224.275*** (365.564)	-1564.814*** (257.716)
Female to male survival until 65 ratio	237.979* (99.894)	845.516*** (112.781)	737.341*** (217.031)	910.31*** (177.983)
Female proportion legislators	0.009 (0.064)	0.053 (0.058)	0.028 (0.159)	-0.001 (0.1)
Education				
Female proportion high school teachers	-1.8 (1.102)	1.772 (1.476)	-4.73 (2.882)	1.437 (2.153)
Female proportion higher education students	-1.279 (1.564)	-4.201* (1.823)	-12.174** (4.11)	-2.964 (2.605)
Female proportion professors	-0.753 (0.971)	0.946 (1.285)	1.508 (2.462)	-1.591 (2.035)
Female proportion higher education graduates	0.859 (1.125)	3.825*** (1.188)	-1.737 (2.993)	1.853 (1.818)
Fertility, marriage, and divorce				
Fertility rate	18.819*** (4.394)	28.047*** (3.947)	27.987*** (11.899)	35.206*** (7.299)
Adolescent fertility rate	-0.766*** (0.192)	-1.805*** (0.208)	-1.807*** (0.473)	-2.005*** (0.344)
Married age difference	-0.539*** (0.154)	0.092 (0.348)	-0.933** (0.327)	-1.108** (0.364)
Divorce rate	0.078*** (0.014)	-0.045 (0.026)	0.323*** (0.075)	-0.001 (0.029)
Constant	155.774 (85.904)	549.396 (79.17)	515.372 (216.004)	677.406 (134.438)

Two-tailed, * $p < .05$; ** $p < .01$; *** $p < .001$.

TABLE 2
Lagged Count of Terrorism in Southeast Versus not Southeast Turkey 2000–2013: Zero-Inflated and Fixed Effects Negative Binomial Results.

Variable	Southeast		Not Southeast		Southeast		Not Southeast	
	Terrorism count β (SE)	Terrorism count β (SE)	Terrorism count β (SE)	Terrorism count β (SE)	Fixed effects terrorism count β (SE)	Fixed effects terrorism count β (SE)	Fixed effects terrorism count β (SE)	
Survival and representation								
Female to male life expectancy ratio	-1022.302*** (247.108)	-277.648 (182.562)			-1794.79*** (223.135)		-829.439*** (183.327)	
Female to male survival until 65 ratio	681.869*** (204.741)	157.247 (100.543)			1109.677*** (176.521)		480.863*** (110.24)	
Female proportion legislators	-0.001 (0.076)	-0.024 (0.088)			0.101 (0.075)		-0.011 (0.084)	
Education								
Female proportion high school teachers	-1.004 (1.173)	1.158 (2.299)			1.026 (1.589)		5.848* (2.87)	
Female proportion higher education students	-0.841 (1.738)	-2.104 (4.426)			-5.705** (2.017)		-8.755 (4.677)	
Female proportion professors	0.602 (1.429)	-1.181 (1.684)			1.401 (1.517)		2.892 (1.662)	
Female proportion higher education graduates	1.046 (1.138)	2.157 (4.437)			2.616* (1.114)		4.052 (3.89)	
Fertility, marriage, and divorce								
Fertility rate	20.999*** (5.325)	13.744* (6.311)			29.746*** (4.56)		27.002*** (6.258)	
Adolescent fertility rate	-1.531*** (0.352)	-0.503* (0.227)			-2.272*** (0.304)		-1.19*** (0.239)	
Married age difference	-0.834*** (0.182)	0.46 (0.281)			-0.741* (0.367)		0.226 (0.464)	
Divorce rate	0.184 (0.453)	0.101*** (0.013)			-0.937 (1.024)		0.078* (0.033)	
Constant	357.409 (118.361)	111.893 (109.16)			724.513 (112.093)		343.882 (106.88)	

Two-tailed, * $p < .05$; ** $p < .01$; *** $p < .001$.

consistent with predictions that gender equality will be associated with less terrorism. The findings regarding the remainder of the educational variables are null, echoing the findings from the all-Turkey models in Table 1. Last, the trend of the importance of fertility rates continues for these disaggregated models of terrorism counts. The overall fertility rate is positive in each specification, indicating that higher fertility rates are associated with more terrorism events and deaths. Once again in opposition to the gender equality–peace thesis, the *adolescent* fertility rate is negative and statistically significant in each model in Table 2.

Critical differences emerged, however, in how the married age difference and divorce rate impact terrorist events in the two different regions of Turkey. The married age difference was related to lower numbers of terrorist events and decreases in terrorism in Southeastern Turkey but was null for the non-Southeast, also providing support for H5. Conversely, the divorce rate is not statistically significant in Southeastern Turkey, but it is positively related to terrorist counts in both the zero-inflated and fixed effects specifications for the rest of Turkey. These results point to the importance of life expectancy, fertility, and marital and divorce characteristics as key predictors of terrorist events; they also identify varying effects of some of these societal-level characteristics in different areas of the same country.

Last, we assess these indicators of gender equality as they relate to terrorist fatalities (see Table 3). Starting with survival and representation, female to male life expectancy and survival until age 65 ratios display a different pattern of results than we have previously observed. First, the life expectancy ratio is negative and statistically significant (as it has been in previous models) in both models for Southeastern Turkey but is positive and statistically significant outside of this region. This suggests that the aggregated national findings were concealing contrary regional relationships with regard to life expectancy and terrorism. This pattern continues for the female to male survival rate ratio with the exception of the null finding in the model examining terrorist fatalities in the following year in Southeastern Turkey. The female proportion of legislators is null, which is consistent with all previous model specifications. We also detect no statistically significant relationships between any of the educational indicators and terrorist fatalities, for either static or dynamic models, in either region of Turkey.

Moving to the fertility, marriage, and divorce variables, patterns are less consistent than previously observed. First, the fertility rate is positive and significant for all specifications except lagged terrorist fatalities in non-Southeastern Turkey. The adolescent fertility rate also exhibits an interesting pattern; it is negative and statistically significant for three specifications and positive but statistically significant for lagged fatalities in the non-Southeast. The negative relationship is consistent with previous models (and inconsistent with predictions that gender equality would be associated with less terrorism), but the positive relationship outside of the Southeast does support the gender equality–peace thesis. The married age difference also operates differently depending on specification and country region. It is null for the fixed effects models, negative and statistically significant in Southeastern Turkey, and positive and statistically significant for the remainder of Turkey. Similarly, the divorce rate is negative in Southeastern Turkey for fixed effects specification, lending support to our hypotheses. This finding is reversed, however, for both static and dynamic models of non-Southeastern Turkey, where a higher divorce rate actually predicts more terrorist fatalities. Overall, these results lend support for the idea that gender equality is an important predictor

TABLE 3
Lagged Sum of Terrorist Fatalities in Southeast Turkey 2000–2013: Zero-Inflated and Fixed Effects Negative Binomial Results.

Variable	Southeast Terrorist fatalities β (SE)	Not Southeast Terrorist fatalities β (SE)	Southeast Fixed effects terrorist fatalities β (SE)	Not Southeast Fixed effects terrorist fatalities β (SE)
Survival and representation				
Female to male life expectancy ratio	-637.444* (275.658)	1008.866* (497.542)	-2121.871*** (332.891)	1337.835** (386.962)
Female to male survival until 65 ratio	388.319 (206.997)	-752.312** (259.651)	1173.44*** (233.851)	-752.095** (250.325)
Female proportion legislators	-0.125 (0.105)	-0.083 (0.211)	0 (0.129)	-0.018 (0.162)
Education				
Female proportion high school teachers	-0.606 (1.7)	-2.501 (4.051)	4.65 (2.513)	4.849 (3.23)
Female proportion higher education students	3.483 (2.729)	13.604 (7.264)	-0.351 (2.849)	-11.545 (5.901)
Female proportion professors	-3.82 (2.28)	-1.775 (3.521)	1.038 (2.373)	1.466 (1.619)
Female proportion higher education graduates	0.012 (1.64)	-11.038 (8.025)	2.492 (1.49)	5.854 (4.96)
Fertility, marriage, and divorce				
Fertility rate	18.837* (7.413)	-17.755 (12.114)	46.562*** (8.786)	34.325** (12.23)
Adolescent fertility rate	-1.053** (0.382)	1.446** (0.484)	-2.519*** (0.42)	-1.682** (0.514)
Married age difference	-1.567*** (0.31)	1.687*** (0.519)	-0.846 (0.653)	0.17 (0.521)
Divorce rate	0.986 (0.849)	0.106*** (0.027)	-3.006* (1.271)	0.134*** (0.032)
Constant	261.32 (148.867)	-265.873 (277.319)	981.053 (171.736)	591.485 (210.534)

Two-tailed, * $p < .05$; ** $p < .01$; *** $p < .001$.

in understanding terrorism at both the national and subnational levels in Turkey. Findings also suggest that these indicators of social life in Turkey do not operate equally across the entire country. There are some divergent findings across these models, however, which we discuss in more detail below.

DISCUSSION

In general, our results lend support for the claim that gender equality is an important predictor of the level of terrorist violence and fatalities, and changes in terrorist violence and fatalities across Turkey. Our key finding is that gender equality does matter, but that this relationship is nuanced and in many cases divergent across measures and geography. Our findings reveal critical differences in the predictive value and direction of varying operationalizations of gender equality as well as the relationship that these measures of gender equality have on aspects of terrorism subnationally within Turkey.

Specifically, in examining H1 and H2 our results demonstrated that several aspects of gender equality were related to terrorist attacks and fatalities in the direction predicted by the gender equality–peace thesis. The female to male life expectancy ratio consistently predicts lower attacks and fatalities, and the overall fertility rate is positively related to terrorist attacks in the following year. Thus, in areas where women are expected to live longer than men and where women have fewer children, one can expect less terrorism. On the other hand, a few findings were contrary to the gender equality–peace thesis. These factors included that higher adolescent fertility rates often predicted lower terrorist attacks and fatalities (with one exception). In addition, the finding that the female to male survival to 65 ratio is positive was in line with previous macro-level findings from Younas and Sandler (2017) whereby increased female to male gender imbalances were related to increased terrorism. Taken together, these findings suggest that the relationship between the level of gender equality and terrorism depends on the aspects of gender equality being examined.

Turning to H3 and H4, which examined the impact of changes in gender equality on changes in terrorism, these fixed effects models generally produced findings consistent with results from more static modeling strategies. In contrast to the gender equality–peace thesis, these results did not indicate that educational variables were significantly related to terrorism. Thus, the proportion of high school teachers, professors, and higher education students or graduates, although strong indicators of gender equality, are not typically predictive of terrorism in Turkey. From this, we conclude that education is not as important for predicting terrorism as compared to the survival and fertility indicators. Unlike the relationship between gender equality and female incarceration in Turkey (see Fisher, 2018), it appears that elements of gender equality that are pivotal for survival and the expression of basic rights are more impactful on the number of terrorist attacks and fatalities. Further, these findings demonstrate that it is both the level and change of gender equality that matter. Consequently, there is now evidence to suggest that the findings of previous studies may not be a function of antecedent variables driving variation in both gender equality and terrorism. Particularly in light of more rapid global changes in gender equality, and as conceptualizations of gender

continue to change, examining the impacts of these changes is of primary research importance.

Last, in H5, we anticipated that the association between these gender equality variables and terrorism would differ in Southeastern Turkey as compared to the rest of the country. Results demonstrate that in line with previous research (Fisher, 2018; Kandiyoti & Kandiyoti, 1987), there were key differences across the country, although some consistent findings also emerged. Notably, contrary to the gender equality–peace thesis, the divorce rate was a significant predictor of increased terrorism primarily outside of the Southeast (with one exception—terrorist fatalities). Additionally, the married age difference was typically a negative and statistically significant predictor of terrorism in the Southeast, but not for the rest of the country. In addition to this divergence, some findings emerged that were consistent across the entirety of Turkey, against our predictions. For the most part, the survival and life expectancy ratios as well as the fertility ratios had consistent effects in both areas of Turkey and the educational variables were similarly null across the entire country. Thus, we find mixed support for H5.

As with all research, there are a few limitations to this study. First, it is a challenge to locate information on this part of the world and much of the data included in this research were collected and stored by the Turkish government. Where possible, attempts were made to assess the potential for any bias by triangulating data with additional outside sources; however, it is possible that data collection procedures could have introduced some bias. Avenues for future research in Turkey include increased validation with additional and independent data sources. Second, these results may not apply outside of the specific context of Turkey and the years included in the current data. Again, future research should work to replicate these sorts of analyses in other countries and areas of the world. As discussed above, Turkey’s unique history and geography make it an important site for terrorism research, but this distinctiveness may also limit external generalizability.

CONCLUSIONS

This study builds on prior terrorism research by focusing on one country, including a number of measures capturing gender equality assessed both as static and changing indicators and disaggregating the country into two distinct regions. These results provide support for the gender equality–peace thesis but also prompt questions surrounding the universality of this perspective. Although some aspects of increased gender equality were in the expected direction (e.g., fertility rates exhibited a consistent positive relationship with terrorism), a few were instead predictors of increased terrorism. Specifically, adolescent fertility, the married age difference, and the divorce rate were consistently statistically significant predictors and were at times opposite the predicted direction. Yet the educational variables capturing the female proportion of students as well as teachers and professors were most frequently not significantly related to the outcomes studied here.

There are many potential reasons for these deviations from the gender equality–peace thesis, which require further examination in future research. Beyond the idea that elements of gender equality that are pivotal for survival and the expression of basic rights are more

impactful on the number of terrorist attacks and fatalities suggested above, it is also possible that some gains in gender equality are less likely to yield impacts on terrorism as they are less likely to evoke a strong reaction. For example, as education has historically been viewed in patriarchal societies as a more acceptable or appropriate job for women,⁹ it might not require a radical change for society to accept females into education or teaching. These gendered sentiments toward teaching are strong in Turkey, where women are socialized to be “carers, nurturers, and mothers” and teaching is an extension of these traditional gendered roles (Kılınç, Wyatt, & Richardson, 2012, p. 217). Moreover, qualitative research exploring gender identity and modernization of gender roles in Turkey has found that, although women have made gains in their professional realms, they may still play traditional roles in the domestic sphere. For example, qualitative research focusing on female elementary school teachers has found that gender roles continue to impact their professional life but still provide their primary focus on being a mother and a wife (Sari, 2012). Thus, within Turkish society, increases and participation in education may not necessarily come at the cost of engaging in more traditional gender roles at home, limiting their potential repercussions for terrorism and other forms of violence.

However, other indicators of equality such as fertility rates may reflect deeper and more entrenched gender norms that would be more closely related to terrorism. The practical considerations of our findings indicate that as societies are moving toward increased gender equality, certain facets of social life may be more important foci for preventing political unrest and terrorism. The fairly consistent impact of overall fertility rates indicates that there is more terrorism in areas where women have higher numbers of children. Although the exact reasons for increased fertility are likely incredibly varied and deeply personal, it is possible that one reason for at least some women may be access to healthcare or being involved in a highly traditional marriage for which they have little to no agency regarding reproductive decisions. In support of this notion, Caprioli (2005) described high fertility rates as “a symptom of a much larger cancer” (p. 174) and noted that along with education and job training, access to birth control and knowledge of family planning are key for increasing female equality, which have the potential to decrease violence, including terrorism.

These findings warrant further study as the causal mechanisms between gender equality and terrorism are clearly more complex than previous theoretical approaches have allowed. These results also lend credence to the necessity of possessing a firm grasp of underlying social life in order to properly study a country; although some measures of gender equality operated similarly across the Southeastern and non-Southeastern part of Turkey, several others did not. Further research in this area should work to disentangle the thorny relationship between gender inequality and terrorism across a variety of contexts, countries, and regions.

NOTES

1. Specifically, these studies examined between 57 (Salman, 2015) and 165 nations (Berrebi & Ostwald, 2016), covering a period between 9 (Salman, 2015) and 35 years (Harris and Milton, 2016). The dependent variable for each of these studies was the incidence of terrorism and/or terrorism fatalities, and these data were drawn from either the International Attributes of Terrorism database and/or the Global Terrorism Database (GTD).

2. See Wood and Ramirez (2018) for a complete and detailed account of the discrepancy between the proposed theoretical mechanisms and the empirical methodologies employed by these studies.
3. For a full description of these attacks see https://www.start.umd.edu/gtd/search/Results.aspx?start_yearonly=&end_yearonly=&start_year=&start_month=&start_day=&end_year=&end_month=&end_day=&country=209&perpetrator=449&dtp2=all&success=yes&casualties_type=b&casualties_max=.
4. “The marriage of underage girls; the demand for baslik (brideprice) in the marriage contract; the denial of girls’ rights to education; and the emphasis on women’s fertility were continuing signs of the uneven socioeconomic development of the country” (Kandiyoti & Kandiyoti, 1987, p. 322).
5. This variable was calculated as the $(\text{age of grooms} - \text{age of brides})$ within each province within each year.
6. As the female proportion of legislators was measured at the national level, any findings specifically related to the relationship between this variable and the outcome variables should be treated with caution, as the standard errors for these estimates will be smaller than they would be if province-level variations were observed, potentially leading to Type I errors.
7. Sensitivity analyses were also conducted that excluded the number of terrorists killed from each attack. These additional analyses had no meaningful impact on the substantive findings.
8. Sensitivity analyses also revealed that these null findings were not due to multicollinearity despite their relatively high correlation with other variables.
9. See Sari (2012) and Kılınc, Wyatt, and Richardson (2012) for Turkey specifically; see Coffey and Delamont (2000) for a broader perspective.

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REFERENCES

- Allison, P. (2009). *Fixed effects regression models* (Vol. 160). Thousand Oaks, CA: SAGE publications.
- Argomaniz, J., & Vidal-Diez, A. (2015). Examining deterrence and backlash effects in counter-terrorism: The case of ETA. *Terrorism and Political Violence*, 27(1), 160–181. doi:10.1080/09546553.2014.975648
- Bakker, R., Hill, D. W., Jr., & Moore, W. H. (2016). How much terror? Dissidents, governments, institutions, and the cross-national study of terror attacks. *Journal of Peace Research*, 53(5), 711–726. doi:10.1177/0022343316655020
- Bartlett, J., & Miller, C. (2012). The edge of violence: Towards telling the difference between violent and non-violent radicalization. *Terrorism and Political Violence*, 24(1), 1–21. doi:10.1080/09546553.2011.594923
- Berko, A., Erez, E., & Globokar, J. L. (2010). Gender, crime and terrorism: The case of Arab/Palestinian women in Israel. *British Journal of Criminology*, 50(4), 670–689. doi:10.1093/bjc/azq013
- Berrebi, C., & Ostwald, J. (2016). Terrorism and the labor force: Evidence of an effect on female labor force participation and the labor gender gap. *Journal of Conflict Resolution*, 60(1), 32–60. doi:10.1177/0022002714535251
- Burgess-Proctor, A. (2006). Intersections of race, class, gender, and crime: Future directions for. *Feminist Criminology*, 1(1), 27–47. doi:10.1177/1557085105282899
- Caprioli, M. (2005). Primed for violence: The role of gender inequality in predicting internal conflict. *International Studies Quarterly*, 49(2), 161–178. doi:10.1111/j.0020-8833.2005.00340.x
- Caprioli, M., & Boyer, M. A. (2001). Gender, violence, and international crisis. *Journal of Conflict Resolution*, 45(4), 503–518. doi:10.1177/0022002701045004005
- Coffey, A., & Delamont, S. (2000). *Feminism and the Classroom Teacher: Research, praxis and pedagogy*. London, UK: Routledge/Falmer.

- Collins, P. H. (2000). Gender, black feminism, and black political economy. *The Annals of the American Academy of Political and Social Science*, 568(1), 41–53. doi:10.1177/000271620056800105
- Cox, D. (1983). Some remarks on overdispersion. *Biometrika*, 70(1), 269–274. doi:10.1093/biomet/70.1.269
- Crenshaw, K. (1989). Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics. *In University of Chicago Legal Forum*, 1(8), 139–167.
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241–1299. doi:10.2307/1229039
- Daly, K. (1993). Class-race-gender: Sloganeering in search of meaning. *Social Justice*, 20(1/2(51–52)), 56–71.
- Dishman, C. (2001). Terrorism, crime, and transformation. *Studies in Conflict and Terrorism*, 24(1), 43–58. doi:10.1080/10576100118878
- Dokupil, S. (2002). The separation of mosque and state: Islam and democracy in modern turkey. *West Virginia Law Review*, 105(1), 53–130.
- Fisher, D. (2018). Gender equality and its heterogeneous impact on the incarceration of women in Turkey. *International Journal of Law, Crime and Justice*, 52, 165–175. doi:10.1016/j.ijlcrj.2017.11.003
- Fisher, D. G., & Meitus, A. A. (2017). Uprooting or sowing violence? Coca eradication and guerrilla violence in Colombia. *Studies in Conflict and Terrorism*, 40(9), 790–807. doi:10.1080/1057610X.2016.1239430
- Fortna, V. P. (2015). Do terrorists win? Rebels' use of terrorism and civil war outcomes. *International Organization*, 69(03), 519–556. doi:10.1017/S0020818315000089
- Gruenewald, J., Chermak, S., & Freilich, J. D. (2013). Distinguishing “loner” attacks from other domestic extremist violence: A comparison of far-right homicide incident and offender characteristics. *Criminology and Public Policy*, 12(1), 65–91. doi:10.1111/1745-9133.12008
- Harris, C., & Milton, D. J. (2016). Is standing for women a stand against terrorism? Exploring the connection between women's rights and terrorism. *Journal of Human Rights*, 15(1), 60–78. doi:10.1080/14754835.2015.1062722
- Hasan, M. (2002). The politics of honor: Patriarchy, the state and the murder of women in the name of family honor. *Journal of Israeli History*, 21(1–2), 1–37. doi:10.1080/13531040212331295842
- Hudson, V. M., Caprioli, M., Ballif-Spanvill, B., McDermott, R., & Emmett, C. F. (2009). The heart of the matter: The security of women and the security of states. *International Security*, 33(3), 7–45. doi:10.1162/isec.2009.33.3.7
- İçduygu, A., Romano, D., & Sirkeci, I. (1999). The ethnic question in an environment of insecurity: the Kurds in Turkey. *Ethnic and Racial Studies*, 22(6), 991–1010. doi:10.1080/014198799329215
- Inglehart, R., Norris, P., & Ronald, I. (2003). *Rising tide: Gender equality and cultural change around the world*. Cambridge: Cambridge University Press.
- Jacques, K., & Taylor, P. J. (2009). Female terrorism: A review. *Terrorism and Political Violence*, 21(3), 499–515. doi:10.1080/09546550902984042
- Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third millennium development goal 1. *Gender and Development*, 13(1), 13–24. doi:10.1080/13552070512331332273
- Kandiyoti, D. A., & Kandiyoti, D. (1987). Emancipated but unliberated? Reflections on the Turkish case. *Feminist Studies*, 13(2), 317–338. doi:10.2307/3177804
- Keskin, B. (1997). Political participation patterns of Turkish women. *Middle East Review of International Affairs*, 1(4), 1–5.
- Kılınç, A., Watt, H. M., & Richardson, P. W. (2012). Factors influencing teaching choice in Turkey. *Asia-Pacific Journal of Teacher Education*, 40(3), 199–226. doi:10.1080/1359866X.2012.700048
- Koch, M. T., & Fulton, S. A. (2011). In the defense of women: Gender, office holding, and national security policy in established democracies. *The Journal of Politics*, 73(1), 1–16. doi:10.1017/S0022381610000824
- Köker, L. (1995). Local politics and democracy in Turkey: An appraisal. *The Annals of the American Academy of Political and Social Science*, 540(1), 51–62. doi:10.1177/0002716295540000005
- Kurumu, T. İ. (2015). *Regional statistics*. Accessed at: <http://tuikapp.tuik.gov.tr/BolgeSel/menuAction.do?dil=enon5/7/18>.
- LaFree, G., & Dugan, L. (2007). Introducing the global terrorism database. *Terrorism and Political Violence*, 19(2), 181–204. doi:10.1080/09546550701246817

- LaFree, G., Dugan, L., & Korte, R. (2009). The impact of British counterterrorist strategies on political violence in Northern Ireland: Comparing deterrence and backlash models. *Criminology*, 47(1), 17–45. doi:10.1111/j.1745-9125.2009.00138.x
- LaFree, G., Dugan, L., & Miller, E. (2014). *Putting terrorism in context: Lessons from the Global Terrorism Database*. London: Routledge.
- Laster, K., & Erez, E. (2015). Sisters in terrorism? Exploding stereotypes. *Women and Criminal Justice*, 25(1–2), 83–99. doi:10.1080/08974454.2015.1023884
- Lorber, J., & Farrell, S. A. (1991). *The social construction of gender*. Newbury Park, CA: SAGE Publications.
- Lynch, J. (2011). Implications of opportunity theory for combating terrorism. In B. Forst, J. R. Greene, and J. P. Lynch, (Eds.), *Criminologists on terrorism and homeland security* (pp. 151–182). Cambridge: Cambridge University Press.
- McCall, L. (2005). The complexity of intersectionality. *Signs: Journal of Women in Culture and Society*, 30(3), 1771–1800. doi:10.1086/426800
- Nacos, B. L. (2016). *Terrorism and Counterterrorism*. London: Routledge.
- Natali, D. (2005). *The Kurds and the state: Evolving national identity in Iraq, Turkey, and Iran*. Syracuse: Syracuse University Press.
- Norris, P., & Inglehart, R. (2002). Islamic culture and democracy: Testing the 'clash of civilizations' thesis. *Comparative Sociology*, 1(3), 235–263. doi:10.1163/156913302100418592
- O'Neil, M. L. (2007). Linguistic human rights and the rights of Kurds. In Z. Kabasakal Arat, (Ed.), *Human rights in Turkey* (pp. 72–86). Pennsylvania: University of Pennsylvania Press.
- Özcan, A. (2006). *Turkey's Kurds: A theoretical analysis of the PKK and Abdullah Öcalan*. London, UK: Routledge.
- Ridout, M., Hinde, J., & DeméAtrio, C. G. B. (2001). A score test for testing a zero-inflated poisson regression model against zero-inflated negative binomial alternatives. *Biometrics*, 57(1), 219–223. doi:10.1111/j.0006-341X.2001.00219.x
- Robison, K. K. (2010). Unpacking the social origins of terrorism: The role of women's empowerment in reducing terrorism. *Studies in Conflict and Terrorism*, 33(8), 735–756. doi:10.1080/1057610X.2010.494171
- Rodoplu, U., Arnold, J., & Ersoy, G. (2003). Terrorism in Turkey. *Prehospital and Disaster Medicine*, 18(2), 152–160.
- Salman, A. (2015). Green houses for terrorism: measuring the impact of gender equality attitudes and outcomes as deterrents of terrorism. *International Journal of Comparative and Applied Criminal Justice*, 39(4), 281–306. doi:10.1080/01924036.2015.1018285
- Sari, M. (2012). Exploring gender roles' effects of Turkish women teachers on their teaching practices. *International Journal of Educational Development*, 32(6), 814–825. doi:10.1016/j.ijedudev.2011.08.002
- Sirkeci, I. (2000). Exploring the Kurdish population in the Turkish context. *Genus*, 56(1/2), 149–175.
- START. (2018). *Global terrorism database*. Retrieved from: https://www.start.umd.edu/gtd/search/Results.aspx?start_yearonly=&end_yearonly=&start_year=&start_month=&start_day=&end_year=&end_month=&end_day=&country=209&perpetrator=449&dtp2=all&success=yes&casualties_type=b&casualties_max=on 5/7/18.
- Staudt, K. (2018). Gender mainstreaming: Conceptual links to institutional machineries. In S. Rai, (Ed.), *Mainstreaming gender, democratizing the state? Institutional mechanisms for the advancement of women* (pp. 40–65). Manchester: Manchester University Press.
- Tekeli, S. (1981). Women in Turkish politics. In: A. -U., Nermin (Ed.), *Women in Turkish society* (pp. 293–310). Leiden, Netherlands: E. J. Brill.
- Tessler, M., & Warriner, I. (1997). Gender, feminism, and attitudes toward international conflict: Exploring relationships with survey data from the Middle East. *World Politics*, 49(2), 250–281. doi:10.1353/wp.1997.0005
- Williamson, J. B., & Boehmer, U. (1997). Female life expectancy, gender stratification, health status, and level of economic development: A cross-national study of less developed countries. *Social Science and Medicine*, 45(2), 305–317. doi:10.1016/S0277-9536(96)00346-2
- Wood, R., & Ramirez, M. D. (2018). Exploring the microfoundations of the gender equality peace hypothesis. *International Studies Review*, 20(3), 345–367. doi:10.1093/isr/vix016

- Wuthrich, F., Ardağ, M., & Uğur, D. (2012). Politics, cultural heterogeneity and support for European Union membership in Turkey. *Southeast European and Black Sea Studies*, 12(1), 45–62. doi:10.1080/14683857.2012.661221
- Younas, J., & Sandler, T. (2017). Gender imbalance and terrorism in developing countries. *Journal of Conflict Resolution*, 61(3), 483–510. doi:10.1177/0022002715603102
- Young, J. K., & Dugan, L. (2011). Veto players and terror. *Journal of Peace Research*, 48(1), 19–33. doi:10.1177/0022343310386269
- Zinn, M. B., & Dill, B. T. (1996). Theorizing difference from multiracial feminism. *Feminist Studies*, 22(2), 321. doi:10.2307/3178416