



2016

Pulling the Trigger on Disarming Domestic Violence Abusers: Implementing Gun Confiscation Policy in Urban and Appalachian Kentucky

Kellie R. Lynch

University of Kentucky, k.lynch@uky.edu

Digital Object Identifier: <http://dx.doi.org/10.13023/ETD.2016.106>

[Click here to let us know how access to this document benefits you.](#)

Recommended Citation

Lynch, Kellie R., "Pulling the Trigger on Disarming Domestic Violence Abusers: Implementing Gun Confiscation Policy in Urban and Appalachian Kentucky" (2016). *Theses and Dissertations--Psychology*. 86.
https://uknowledge.uky.edu/psychology_etds/86

This Doctoral Dissertation is brought to you for free and open access by the Psychology at UKnowledge. It has been accepted for inclusion in Theses and Dissertations--Psychology by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@sv.uky.edu.

STUDENT AGREEMENT:

I represent that my thesis or dissertation and abstract are my original work. Proper attribution has been given to all outside sources. I understand that I am solely responsible for obtaining any needed copyright permissions. I have obtained needed written permission statement(s) from the owner(s) of each third-party copyrighted matter to be included in my work, allowing electronic distribution (if such use is not permitted by the fair use doctrine) which will be submitted to UKnowledge as Additional File.

I hereby grant to The University of Kentucky and its agents the irrevocable, non-exclusive, and royalty-free license to archive and make accessible my work in whole or in part in all forms of media, now or hereafter known. I agree that the document mentioned above may be made available immediately for worldwide access unless an embargo applies.

I retain all other ownership rights to the copyright of my work. I also retain the right to use in future works (such as articles or books) all or part of my work. I understand that I am free to register the copyright to my work.

REVIEW, APPROVAL AND ACCEPTANCE

The document mentioned above has been reviewed and accepted by the student's advisor, on behalf of the advisory committee, and by the Director of Graduate Studies (DGS), on behalf of the program; we verify that this is the final, approved version of the student's thesis including all changes required by the advisory committee. The undersigned agree to abide by the statements above.

Kellie R. Lynch, Student

Dr. Jonathan M. Golding, Major Professor

Dr. Mark Fillmore, Director of Graduate Studies

PULLING THE TRIGGER ON
DISARMING DOMESTIC VIOLENCE ABUSERS:
IMPLEMENTING GUN CONFISCATION POLICY IN URBAN
AND APPALACHIAN KENTUCKY

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy
in Experimental Psychology in the
College of Arts and Sciences
at the University of Kentucky

By

Kellie Rose Lynch

Lexington, Kentucky

Co-Directors: Dr. Jonathan M. Golding, Professor of Psychology

and Dr. TK Logan, Professor of Behavioral Science

Copyright © Kellie Rose Lynch 2016

ABSTRACT OF DISSERTATION

PULLING THE TRIGGER ON DISARMING DOMESTIC VIOLENCE ABUSERS: IMPLEMENTING GUN CONFISCATION POLICY IN URBAN AND APPALACHIAN KENTUCKY

The present study investigated why communities differing in culture and resources are willing and able to implement gun confiscation as part of a protective order. Specifically, this study explored whether the perceived risk of intimate partner homicide and gun violence, benefits to engaging in gun confiscation, barriers to gun confiscation, community norms about guns, and community readiness to implement gun confiscation: (a) differ in urban and rural communities, (b) are perceived differently by victim service and justice system key professionals within urban and rural communities, and (c) are related to if a community is able and willing to consistently implement procedures that mandate gun confiscation of abusers as part of a protective order. Interviews, guided by an adapted guiding conceptual framework, were conducted with key professionals (N = 133) who work both in victim services and the justice system from a targeted urban community and four Appalachian communities in Kentucky.

First, implementing gun confiscation procedures to disarm abusers in rural communities does not seem likely or feasible compared to the urban community given the lower perceived risk-benefit of gun confiscation, importance of gun culture, and limited resources in the selected rural communities. Second, urban justice system professionals, in comparison to urban victim service professionals, reported fewer barriers to enforcing the gun confiscation policy and were more likely to downplay law enforcement limitations in the community and attribute the ineffectiveness of the gun confiscation policy to reasons outside their control. Third, the perceived risk of intimate partner gun violence was associated with consistently implementing in gun confiscation at the emergency protective order (short-term) level, and the perceived community approval of the policy was associated with engaging in consistent gun confiscation at the domestic violence order (longer-term) level. Fourth, both urban and rural professionals pointed out potential unintended negative consequences to implementing the gun confiscation policy, such as violation of second amendment rights and increased danger for victims who seek protective orders. The results have implications for developing

more effective strategies for increasing a community's ability and motivation to enforce gun policy that keep guns out of the hands of dangerous abusers.

KEY WORDS: Intimate Partner Violence, Gun Violence
Appalachian Studies, Firearm Policies,
Health Belief Model

Kellie Rose Lynch

April 18th, 2016

PULLING THE TRIGGER ON
DISARMING DOMESTIC VIOLENCE ABUSERS:
IMPLEMENTING GUN CONFISCATION POLICY IN URBAN
AND APPALACHIAN KENTUCKY

By

Kellie Rose Lynch

Jonathan M. Golding, PhD
Co-Director of Dissertation

TK Logan, PhD
Co-Director of Dissertation

Mark Fillmore, PhD
Director of Graduate Studies

April 18th, 2016

To my parents, for their encouragement and to whom I owe everything,
To the community professionals who dedicate their lives to protect families,
And to the survivors of domestic violence.

ACKNOWLEDGMENTS

First and foremost I wish to thank my dissertation co-chairs and mentors, Dr. Jonathan Golding of the Department of Psychology and Dr. TK Logan of the Department of Behavioral Science. Both of you have provided me with continuous support and encouragement during this process, and you have always make yourselves available when I need guidance. I have learned so much from you, both personally and professionally, and I look forward to many more years of working together.

I would like to thank each member of my dissertation committee for their years of mentorship, guidance, and support: Dr. Claire Renzetti, Dr. Richard Smith, and Dr. Richard Milich. I would also like to thank my outside reader, Dr. Carl Leukefeld, for his time and thoughtful feedback, which contributed to the final product of this dissertation. I feel lucky to have worked with such kind, knowledgeable individuals during my time as a graduate student.

I must also send a big thank you to the community professionals and agencies throughout Kentucky that both assisted me and participated in this project. I would not have been able to complete this project without the support of such community agencies; so for that, I am eternally grateful. I also wish to thank the survivors of domestic violence who took the time to share their stories and thoughts during the initial stages of this project. I hope my work can contribute to policies and initiatives that help protect and improve the lives of domestic violence survivors.

Last but not least, I wish to thank my family and close friends for their continuous love and support throughout the completion of my PhD. Your support was a constant source of motivation throughout graduate school. To my father, thank you for the work ethic you instilled in me and for inspiring me to go to graduate school. To my mother, thank you for being my biggest supporter and my rock. Ryan, thank you for being the best partner I could ask for and for inspiring me to be my best. Finally, to Taggart, Ryan, and Bryar, thank you for the love and laughter you bring me each day.

TABLE OF CONTENTS

Acknowledgments.....	iii
List of Tables.....	vii
List of Figures.....	viii
Chapter 1: Introduction.....	1
1.1 Intimate Partner Violence.....	2
1.1.1 Health Consequences of IPV.....	3
1.1.2 Intimate Partner Homicide.....	5
1.1.3 Intimate Partner Violence and Guns.....	7
1.2 The Context of Gun Violence in the U.S.	11
1.2.1 Gun Ownership.....	11
1.2.2 Gun Violence as a Public Health Problem.....	13
1.2.3 Cost of Homicides and Gun Violence.....	14
1.3 Protection from Abusers with Guns.....	16
1.3.1 The Kentucky Justice System Response.....	17
1.3.2 Complexities to Protection from Intimate Partner-Related Gun Violence.....	19
1.4 Implementing Firearm Protective Procedures: An Adapted Framework.....	22
1.4.1 Components of the Guiding Conceptual Framework.....	26
1.5 Key Informant Methodology.....	30
1.6 Urban and Appalachian Kentucky.....	32
1.6.1 Urban versus Appalachian Response to IPV.....	33
1.6.2 Community Professional Agency Type Context.....	36
Chapter 2: The Present Study.....	39
2.1 Structured Interview.....	40
2.2 Research Questions.....	41
Chapter 3: Method.....	43
3.1 Design.....	43
3.2 Participants.....	43
3.2.1 Recruitment.....	43
3.2.3 Final Sample.....	48

3.3 Materials.....	49
3.3.1 Key Professional Interview.....	49
3.4 Procedure.....	54
Chapter 4: Results.....	57
4.1 Results Overview.....	57
4.1.1 Quantitative Analyses.....	57
4.1.2 Qualitative Analyses.....	58
4.2 Key Professional Characteristics.....	58
4.2.1 Demographic characteristics by community type.....	59
4.2.2 Demographic characteristics by agency type.....	59
4.3 Current Gun Confiscation Procedures in the Sample Communities.....	61
4.3.1 Participants Frequently in Protective Order Hearings.....	62
4.4 Risk Benefit Tradeoff Results.....	64
4.4.1 Perceived Risk of Intimate Partner Gun Violence and Homicide...	64
4.4.2 Benefits to Gun Confiscation.....	65
4.5 Community Ability to Implement Gun Confiscation Results.....	70
4.5.1 Barriers to Gun Confiscation.....	70
4.5.2 Community Norms about Gun Culture and Gun Control.....	76
4.5.3 Community Readiness to Implement gun confiscation.....	81
4.6 Likelihood of Consistently Implementing Gun Confiscation.....	86
4.7 Relationship between Risk-Benefit Tradeoff, Community Ability, and Likelihood of Gun Confiscation Results.....	87
4.7.1 Gun Confiscation at the EPO Stage.....	89
4.7.2 Gun Confiscation at the DVO Stage.....	90
Chapter 5: Discussion.....	92
5.1 Rural Community Context in Implementing Gun Confiscation.....	93
5.2 Professional Agency Context in the Urban Area.....	99
5.3 Likelihood to Take Action at the Emergent versus Long Term Stage.....	102
5.4 Unintended Negative Consequences of Gun Confiscation.....	105
5.5 Study Limitations.....	108
5.6 Future Directions.....	113

5.7 Conclusion.....	117
Appendices	
Appendix A: Key Professional Interview	119
Appendix B: Verbal Informed Consent Script.....	130
References.....	131
Vita.....	156

LIST OF TABLES

Table 1, Census data for the targeted urban and rural counties.....	44
Table 2, Number of protective order cases in 2014 for the sampled counties.....	45
Table 3, Summary of process to achieve final sample.....	49
Table 4, Key professional participant characteristics.....	61
Table 5, Knowledge of current gun confiscation procedures as reported by community type.....	63
Table 6, Knowledge of current gun confiscation procedures for participants in protective order hearings each week.....	65
Table 7, Average perceived risk of intimate partner gun violence variables	65
Table 8, Proportion of participants who mentioned benefits to gun confiscation themes.....	66
Table 9, Proportion of participants who mentioned reason for effectiveness themes.....	68
Table 10, Proportion of who agreed that each challenge is a barrier in community to enforcing gun confiscation policy.....	71
Table 11, Proportion of participants who mentioned negative consequences themes.....	75
Table 12, Estimates of normative beliefs/behaviors about guns in community.....	77
Table 13, Proportion of participants who mentioned likelihood of agreement themes....	79
Table 14, Average community readiness ratings.....	82
Table 15, Proportion of participants who mentioned community ability themes.....	84
Table 16, Average likelihood ratings of gun confiscation occurrence.....	86
Table 17, Linear regression results for a community to engage in gun confiscation at the EPO stage.....	89
Table 18, Linear regression results for a community to engage in gun confiscation at the DVO stage.....	90

LIST OF FIGURES

Figure 1, Guiding conceptual framework of the measures in the present study.....	25
Figure 2, Appalachian counties are represented by the deep-colored counties in Eastern Kentucky.....	33
Figure 3, Location of sampled counties.....	44
Figure 4, Community type x agency type for the proportion of participants who reported “easy access to guns” as an ineffectiveness theme.....	70
Figure 5, Community type x agency type interaction for average number of reported community barriers.....	72
Figure 6, Community type x agency type interaction for proportion of participants who reported limited law enforcement resources as a community barrier.....	73
Figure 7, Community type x agency type interaction for proportion of participants who reported that intimate partner gun violence is not a big enough problem in the community as a community barrier.....	74

Pulling the Trigger on Disarming Domestic Violence Abusers: Implementing Gun
Confiscation Policy in Urban and Appalachian Kentucky

Chapter 1: Introduction

Kentucky has one of the highest proportions in the country of women who are killed by an abuser who used a firearm (Gerney & Parsons, 2014), yet it has no uniform state law that prohibits convicted non-felon abusers and protective order respondents from possessing firearms. Protections from intimate partner-related gun violence in Kentucky can include mandated gun removal as a condition of a protective order. Protective orders are civil injunctions against further abuse and violence. A petitioner of a protective order may be granted an Emergency Protective Order (EPO), a short-term protection that does not require the respondent to be present in court for the order to be granted. After receiving an EPO, a hearing is scheduled for a Domestic Violence Order (DVO), which provides court-order protection from the respondent for a longer period of time (typically 3 years). The respondent of the DVO must appear in court before a Judge in order for the DVO to be granted. An EPO can be extended for up to six months from the original filing date if a DVO hearing is continuously pushed back or re-scheduled. This can happen if the DVO respondent fails to appear in court, for example. A judge can order a protective order respondent to surrender his or her firearms following an EPO (i.e., gun confiscation at the EPO stage) and/or during a DVO hearing (i.e., gun confiscation at the DVO stage). In response to the absence of state laws, some counties in Kentucky have implemented initiatives at a community-level to implement gun confiscation of protective order respondents. However, little is known regarding the

implementation and consistency of enforcement of mandated gun confiscation procedures at the community level within Kentucky.

Gun confiscation procedures may or may not occur in Kentucky communities for a variety of reasons, such as community resource allocation, cultural norms about gun use/control, and the ability of a community to implement additional justice system procedures (i.e., gun confiscation) beyond what is already included in a standard protective order. Therefore the goal of the present study was to investigate why communities differing in culture and resources are willing and able to implement gun confiscation as part of a protective order. Specifically, this study explored whether the perceived risk of intimate partner homicide and gun violence, benefits to engaging in gun confiscation, barriers to gun confiscation, community norms about guns, and community readiness to implement gun confiscation: (a) differ in urban and rural communities, (b) are perceived differently by victim service and justice system key professionals within urban and rural communities, and (c) are related to if a community is able and willing to consistently implement procedures that mandate gun confiscation of abusers as part of a protective order. The results have implications for maximizing how communities that differ in differ in gun culture, resources, and priorities can be motivated to consistently implement protective strategies that help reduce intimate partner gun violence and homicide.

1.1 Intimate Partner Violence

IPV is a public health problem that has many negative mental and physical health consequences for its victims (Black et al., 2011; Logan, Walker, Jordan, & Leukefeld, 2006; Sharps & Campbell, 1999), and comes at a high cost for both victims and society in

general (National Center for Injury Prevention and Control [NCIPC], 2003). In fact, Sharps and Campbell (1999, p.163) concluded that violence against women in the U.S. is a “major health problem that is at an epidemic level.” For example, about 1 in 4 women (25.7%) and 1 in 20 men (5.2%) in the U.S. have experienced rape, physical violence, and/or stalking at the hands of an intimate partner that caused them to be fearful at some point in their lives (Black et al., 2011). Although both men and women experience IPV victimization, female partners typically experience IPV victimization more frequently (Black et al., 2011; Tjaden & Thoennes, 2000) and experience more severe violence than male partners, causing greater and more serious injuries, including death (Archer, 2000; Hamberger & Guse, 2002; Menard, Anderson, & Godboldt, 2009; Tjaden & Thoennes, 2000). Specifically, gender differences in IPV victimization and perpetration are maximized as the violence becomes more severe (Arias & Corso, 2005). For example, women are 7 to 14 times more likely than men to report major physical assault victimization (i.e., beaten up, choked, attempted to be drowned, and experienced a threat or actual use of weapon against them), versus 2 to 3 times more likely than men to report minor physical abuse victimization (i.e., pushed, shoved, grabbed; Tjaden & Thoennes, 1998). Because women experience more frequent and severe IPV, they are also more likely than men to seek hospitalization, medical care, counselling, and time off from work in relation to their IPV injuries (Arias & Corso, 2005; Tjaden & Thoennes, 2000).

1.1.1 Health consequences of IPV. Direct and indirect physical health consequences of IPV can include physical injuries (Coker, Smith, Bethea, King, & McKeown, 2000; Rand, 1997; Tjaden & Thoennes, 2000), chronic pain (e.g., Dillon, Hussain, Loxton, & Rahman, 2013; Vives-Cases, Ruiz-Cantero, Escribà-Agüir, &

Miralles, 2011), gastrointestinal symptoms/disorders (e.g., irritable bowel syndrome and gastroesophageal reflux; Black et al., 2011; Bonomi, Anderson, Reid, Rivara, Carrell, & Thompson 2009), cardiac symptoms (e.g., chest pains, hypertension; Breiding, Black, & Ryan, 2008; Mason et al., 2012), and of course, death (Campbell et al., 2003; Cooper & Smith, 2011; Fox & Zawitz, 1999; Puzone, 2000). Not unrelated to physical health problems, IPV victimization has also been linked to mental health problems such as post-traumatic stress disorder (e.g., Black et al., 2011; Golding, 1999; Logan & Cole, 2007), depression (e.g., Beydoun, Beydoun, Kaufman, Lo, & Zonderman, 2012; Golding, 1999), and substance use abuse problems (e.g., Afifi, Henriksen, Asmundson, & Sareen, 2012; Bonomi et al., 2009; Kilpatrick Acierno, Resnick, Saunders, & Best, 1997).

Because of the plethora of physical and mental health issues IPV victims experience, IPV has long-term consequences for its victims that often leads to a poor quality of life, poor health status, and high use of health services (Campbell et al., 2002; Jones et al., 2006; McCauley et al., 1995; Tollestrup et al., 1999; Weinbaum et al., 2001; Wisner, Gilmer, Saltzman, & Zink, 1999). The CDC (NCIPC, 2003) estimates that healthcare workers see over 971,000 outpatient physician visits, more than 232,000 dental visits, over one million physical therapy visits, 486,000 emergency department visits, and over 807,000 overnight hospital stays directly related to IPV. This does not take into account the number of IPV victims who do not seek medical attention due to limited health insurance, resource availability, and the dynamics of abuse (e.g., a controlling abuser; Plichta & Falik, 2001). Research has also found that victimized women sought medical attention from emergency/urgent care facilities three times more

than non-victimized women (Dearwater et al., 1998) and that medical service use increased with the severity of physical assault (Koss, Koss, & Woodruff, 1991).

1.1.2 Intimate Partner Homicide. As discussed above, IPV can lead to a range of injuries, with death being the most severe outcome. Mirroring similar gendered patterns to intimate partner abuse such as rape, stalking, and physical violence (Black et al., 2011; Tjaden & Thoennes, 2000), women are more likely than men to be murdered by an intimate partner (Campbell et al. 2003; Fox & Zawitz, 2007). Given the known risk factors, intimate partner homicides have been referred to as the most predictable and preventable of all homicides (Center for Research and Education on Violence against Women and Children, 2014). Although not all of IPV victims are killed by their abuser, many intimate partner homicide victims experience abuse prior to the homicide (Campbell et al., 2003; Saltzman, Mercy, Ocarroll, Rosenberg, & Rhodes, 1992). For example, 70% of Campbell et al. (2003)'s sample of female intimate partner homicide victims experienced IPV prior to their murder. The intersection between partner abuse and homicide is also critical in Kentucky. Kentucky's rates of rape and physical violence are higher than the nation's average and it has the highest rate of stalking in the U.S. (Black et al. 2011). A report investigating Kentucky intimate partner homicides in 2010 (Logan & Lynch, 2014) found that 1 in 4 cases had a documented domestic violence-related contact with the criminal or civil justice system (i.e., had an active DVO, a request for an EPO, an active No Contact court order, or a domestic violence-related call to police) prior to the murder. Further, 1 in 9 cases documented this contact within 30 days prior to the incident.

Relatedly, researchers have identified contextual risk-factors in abusive relationships that increase the danger posed to a victim. One such primary risk is separation from an abuser. Separation from a partner is considered to be a risk factor for abuse and is one of the most dangerous periods for a victims of IPV (Bachman & Saltzman, 1995; Campbell et al., 2003; Gunsallus, 2011; Hardesty, 2002; Logan, Walker, Shannon, & Cole, 2008; Sev'er, 1997; Logan, Walker, Jordan, & Campbell, 2004). Abusers are often controlling (Logan & Walker, 2009; Stark, 2007), therefore during separation, an abuser may seek retaliation and/or efforts to regain control over the victim (Burgess et al., 1997; Logan et al., 2004). Further, the separation period is typically a fluid process that can involve victims of IPV going back to an abuser out of financial dependency (Logan et al., 2004; Logan, Shannon, Walker, & Faragher, 2006), which can result in victims remaining in a very dangerous situation. Thus, women are at a particular risk to be murdered by a partner during separation (Campbell et al., 2003; Dawson & Gartner, 1998; Kurz, 1996; Sev'er, 1997; Wilson & Daly, 1993; Wilson, Johnson, & Daly, 1995). Campbell et al. (2003) found that the combination of separation from a controlling abuser with whom a woman had lived increased her risk of being murdered by that abuser almost 9-fold.

One tactic that an abuser may use to regain control of a victim during separation is stalking (Tjaden & Thoennes, 1998; Logan, Leukefeld, & Walker, 2000). Researchers have found that stalking by an abuser can be particularly dangerous for IPV victims as intimate partner stalkers are more likely to actually commit more violence against their victims compared to non-intimate partner stalkers (James & Farnham, 2003; Mohandie, Meloy, McGowan, & Williams, 2006; Palarea, Zona, Lane, & Langhinrichsen-Rohling,

1999; Rosenfeld & Harmon, 2002; Rosenfeld, 2004; Sheridan & Davies, 2001). Relatedly, intimate partner stalkers are more likely to know their victims' schedules, family, and friends, making it easier to access their victims (Logan & Walker, 2009). Therefore, it is not surprising that stalking is associated with intimate partner homicide (McFarlane et al., 1999; Moracco, Runyan, & Butts, 1998). One study found that 76% of intimate partner homicide victims and 85% of victims of attempted intimate partner homicide were stalked by their abuser prior to the incident (McFarlane et al., 1999). The same study found that outside of "regular" stalking tactics, such as following the victim, waiting around for the victim, and making unwanted contact with the victim, the most common stalking behavior that both murder (39%) and attempted murder victims (40%) experienced by their stalker was being frightened with a weapon. Other research has emphasized that the risk of death or injury for victims of IPV can be particularly dangerous if an abuser has access to a firearm (Campbell et al., 2003; Saltzman, et al., 1992).

1.1.3 Intimate Partner Violence and Guns. Firearms play a critical role in the association between partner abuse and intimate partner homicide. In fact, according to the FBI's Supplementary Homicide Report data, more women in the U.S. were killed by an abuser who used a gun between 2001 and 2012 (n = 6410; Gerney & Parsons, 2014) than the total number of U.S. troops killed in action during the entire Iraq and Afghanistan wars combined (n = 5358; U.S. Department of Defense, 2014). Firearms are the most commonly used weapon to murder a partner in the U.S. (Cooper & Smith, 2011; Fox & Zawitz, 2007) and male abusers are more likely to kill their female partners with a gun compared to non-intimate partner offenders (e.g., strangers, acquaintances/friends) who

kill women (Arbuckle, Olson, Howard, Brillman, Anctil, & Sklar, 1996; Moracco et al., 1998). Campbell et al. (2003) found that women who were previously threatened or assaulted with a firearm or other weapon were about four times more likely than those women who were not previously threatened with a weapon to be murdered by their abusive partners. Relatedly, about 40% of both murder and attempted murder victims in McFarlene et al. (2009)'s sample of women were frightened with a weapon by their stalker prior to the incident. The finding that intimate partners are more likely to be murdered by a firearm than all other means combined in the U.S. (Fox & Zawitz, 2007) also holds true in Kentucky (Logan & Lynch, 2014). As outlined in a recent report using FBI Supplementary Homicide Data between the years 2003 and 2012 (Gerney & Parsons, 2014), Kentucky was among the states with the highest proportion of women killed by an intimate partner using a firearm in the country (73.2% versus national average of 54.8%). Kentucky also had the highest proportion of gun-related intimate partner deaths overall for both men and women in the U.S. (70.8% versus national average of 52.5%).

Guns are also used in non-fatal IPV. Sorenson and Wiebe (2004) found that 36.7% of their sample of shelter women reported that an abuser used a firearm to hurt them. Women whose abuser used a gun to harm or threaten them also experienced abuse involving the use of almost twice as many other types of weapons (e.g., belt, household objects, fist) than women whose abusers did not use a gun against them. With regard to threats with a firearm, 64.5% of women reported that their partner had used a gun to threaten or scare them. The use of guns as a tool for psychological abuse in abusive situations was also evidenced in discussions with victimized women recruited from shelters (Lynch & Logan, 2015). These women described the ways that guns can be used

to threaten or intimidate a victim of partner violence, including both explicit threats to kill her and the implicit threat of knowing that a gun was in the home and could be used at any moment. Firearm use in the context of IPV has also been assessed in Kentucky using urban and Appalachian IPV victims who sought a protective order against their abusers. Logan, Walker, Hoyt, and Faragher (2009) found that 4.7% of urban and 9.4% of Appalachian women reported that their abuser used a knife, gun, or other weapon to harm them during the violent incident that led them to seek an emergency protective order. However, when looking at lifetime history of violence, 32.4% of urban women and 50.5% of Appalachian women reported that their abusive partner had threatened them with a weapon, and 2.8% of urban versus 22.9% of Appalachian women reported that their abuser used a weapon on them.

It is important to note that rates of gun violence and/or threats are likely to be higher in shelter samples (or targeted IPV victim samples) given that shelter women are more likely to experience more severe abuse (Kelly & Johnson, 2008). For example, the National Intimate Partner and Sexual Violence Survey used a sample from the general population and found that only 4.6% of women and 2.8% of men in the U.S. reported that a partner had ever used a knife or gun on them (Black et al., 2011), which is similar to the average national rate found using another national survey (National Crime and Victimization Survey) between 2003 and 20012 (Truman & Morgan, 2014). A recent firearms survey conducted by The National Domestic Violence Hotline (2014) found that of the 16% of their callers who reported that their partners had access to firearms, 22% (about 4% of the total sample) reported that their partner threatened to use a firearm against them or their friends/families. Of those respondents whose partners who had

access to firearms, 67% believed their partner was capable of killing them. Ten percent of partners with access to firearms actually fired the gun during an argument. This survey also assessed the respondents' knowledge and beliefs about gun confiscation. Only 34% of respondents whose partners had access to a firearm knew that a court may be able to mandate that their partner surrender their firearms and 52% of respondents reported that they would feel safer if law enforcement confiscated their partners' firearms.

Although the proportion of women in the general population of the U.S. who experience gun violence is relatively low (Black et al., 2011), it does not mean that gun violence in the context of IPV situations is not an important national issue. Domestic violence-related homicides (i.e., involving intimate partners and family members) result in additional homicide victims outside of intimate partners and family members. An analysis of mass killings between January 2009 and 2013 found that 57% of those incidents involved offenders who shot an intimate partner and/or family member (Everytown for Gun Safety, 2014). In addition, homicides are expensive to both victims and taxpayers in the U.S. (Corso, Mercy, Simon, Finkelstein, & Miller, 2007; Waters et al., 2004), with intimate partner homicides costing \$892.7 million per year (1995 U.S. dollars; NCIPC, 2003). The costs of injury that come with gun injury are also very high (Waters et al., 2004). Finally, intimate partner homicide has been considered the most predictable and preventable types of murders given the known risk factors (e.g., firearm, separation, abuse; Center for Research and Education on Violence Against Women and Children, 2014). When a gun is present in an abusive situation, a victim's risk of murder drastically increases (Campbell et al., 2003). If risk factors are known and legal interventions, such as mandatory gun removal for protective order respondents, have

been shown effective (Vigdor & Mercy, 2006; Zeoli & Webster, 2010; Zeoli, Malinski, & Turchan, .2016), greater efforts should be made to reduce intimate partner homicide in the U.S.

1.2 The Context of Gun Violence in the U.S.

1.2.1 Gun ownership. While guns are the most commonly used weapon to murder intimate partners, the overall percentage of homicides committed by intimates using a firearm has decreased by 26% from 1980 to 2008 (Cooper & Smith, 2011). Relatedly, the number proportion of intimate partners killed with a gun was the lowest proportion in 2013 (50%) since 1980 (Zeoli et al., 2016). Gun ownership is also on the decline. A recent report from the 2014 General Social Survey found that only 31% of Americans reported either they own a firearm or live with someone who does—a decrease from 47% in 1980 (Smith & Son, 2015). Given that female gun ownership has remained consistently low (about 10%) since the 1980's, the decline in household gun ownership is speculated to be due to a decline in male gun ownership (Smith & Son, 2015). The results of the General Social Survey is similar but slightly lower than a nationally representative telephone survey conducted by Hepburn and Hemenway (2007), which found that 38% of households contain at least one firearm. Although gun ownership appears to have declined, data from the FBI's National Instant Criminal Background Check system show that background checks have nearly doubled from 1999 to 2013 (U.S. Department of Justice, 2013). However, this likely reflects an increase in gun regulation rather than an increase in actual gun ownership.

National survey data have found characteristics that are associated with owning a firearm. For example, a recent national survey conducted by the Pew Research Center

(2014) found that although individuals living in the South had the highest percentage of reported gun ownership (38%), individuals from the Midwest (35%) and West (34%) reported similar gun ownership rates. Only individuals from the Northeast reported a lower gun ownership rate (27%). An aggregate report of Gallup Poll results from 2007 to 2013 found similar gun ownership in the South (39%) compared to the Pew survey, however lower gun ownership rates compared to Pew in the Midwest (29%), West (27%), and Northeast (21%) regions of the US (Jones, 2013). The Gallup Poll (Jones, 2013) also found that being male, politically conservative, married, and from the South were each significantly associated with an increased likelihood of owning a firearm. With regard to reasons for owning a gun, a report by the Pew Research Center (2013) found that the most common reason for owning a gun was for protection (48%), with hunting (32%) being the second most common rationale.

Pew and Gallup surveys have also tracked attitudes toward gun control in the U.S. over time. Although the proportions of individuals who endorsed gun control versus protecting gun ownership were almost the same in 2014 (50% and 48%, respectively), the proportion of individuals who believed in the right to protect gun ownership has increased by from 34% 1993 to 48% in 2014 (Pew Research Center, 2014). Belief in gun control dropped from 57% in 1993 to 50% in 2014. Relatedly, 2014 Gallup Poll results found that the proportion of Americans who favor stricter laws covering gun sales (e.g., background checks; registration) has decreased from 62% in 2000 to 47% in 2014 (Swift, 2014). Overall, the results from Pew and Gallup Polls may suggest that gun ownership views have become more pro-gun over time.

Despite the reduction in gun ownership and proportion of intimates killed by a gun, there does appear to be a relationship between gun ownership and homicide rates. A recent national analysis investigated the relationship between gun ownership in all 50 states and homicide rates. While controlling for other factors that may impact the results (e.g., race, poverty, crime rate, alcohol use), Siegal and Rothman (2016) found that states with higher proportions of gun ownership had more homicides overall, but also more firearm-committed and non-stranger firearm-committed homicides. The authors also found that the proportion of variance that explained the relationship between firearm ownership and the homicide rate was larger for female homicide victims (41%) than male homicide victims (1.5%). Therefore, gun ownership appears to put women at a particularly higher risk to experience non-stranger homicide at the hand of a gun.

1.2.2 Gun violence as a public health problem. Gun violence, today, is more commonly being considered a public health problem given the number of firearm-related deaths in the U.S. each year (Dresang, 2000; Orient, 2013). In fact, Americans under the age of 40 are more likely to die from a firearm injury than any specific disease (CDC, 2012; Webster & Vernick, 2013) and women in the U.S. are 11 times more likely to be murdered by a gun than women in other developed countries (Hemenway, Shinoda-Tagawa, & Miller 2002). Regardless of gun ownership rates, it does not appear that women's risk of being murdered by an intimate partner is declining. Although the overall homicide rate has declined, the intimate partner homicide rate has actually increased by 5% for women while decreasing by 53% for men from 1980 to 2008 (Cooper & Smith, 2011). Further, the rate of intimate partner homicide in Kentucky has remained relatively stable in the 2000's and shows no evidence of decline (Logan & Lynch, 2014).

Given the intersection of guns and intimate partner homicide, or fatal IPV, intimate partner-related gun violence is becoming an important component of IPV etiology and prevention. One aspect related to considering violence as a public health issue is the need for developing effective prevention programs (Dahlberg & Mercy, 2009). For example, in 2013 the National Institute of Health (NIH, 2013a) put out a call for grant submissions specifically incorporating the determinants and consequences of gun violence in the context of intimate partner violence. There has also recently been a push by many health organizations, such as the American Medical Association, the American Psychological Association, and the American Academy of Pediatrics, to consider gun violence a public health problem that should receive funding from national health related agencies (Beckett, 2014). In 2013, the National Institute of Health (NIH, 2013b) put out a call for firearm injury prevention research and in 2014, President Obama included \$10 million in funds in the proposed 2015 federal budget to restart firearm-related research at the CDC (Pearson & Adams Otis, 2014; Ransom, 2014). Recently, the American College of Physicians, which is the second-largest physicians group in the U.S., published an article with policy recommendations to support its position that gun violence is a public health issue and provided recommendations for how healthcare workers can address guns (e.g., physicians asking about the presence of a firearm in the home; Butkus, Doherty, & Daniel, 2014).

1.2.3 Cost of homicides and gun violence. Unsurprisingly, intimate partner homicides come at a high cost in the U.S. Homicides are expensive, with estimates of each homicide costing over \$1.3 million (2000 U.S. dollars; Corso et al., 2007) to over \$2 million (2001 U.S. dollars) per death (Waters et al., 2004). The CDC's economic costs of

IPV report found that the expected value of life earnings lost for homicide victims is \$892.7 million, with an average of \$713,000 per fatality (1995 U.S. dollars; NCIPC, 2003). However, less is known regarding the specific costs of intimate partner related gun violence given that gun violence also includes non-fatal violence—not just homicide. A report by the World Health Organization estimated that gun violence in the U.S., including suicides, costs \$155 billion each year (medical costs and wages lost), with lifetime medical care costing each victim an average of \$37,000 to \$42,000 (2001 U.S. dollars; Waters et al., 2004). Similarly, Corso et al. (2007) found that firearm-related injuries and fatalities result in the highest lost-productivity costs for men and women. Unfortunately, Gunderson (1999) estimated that the majority of medical costs associated with gun injuries are either paid with public financing or not paid at all. More recently, the news outlet, *Mother Jones*, collaborated with Dr. Ted Miller of the Pacific Institute for Research and Evaluation to analyze the total economic cost of gun violence in the U.S. using data from 2012. This analysis concluded that gun violence in the U.S. costs a total of over \$229 billion dollars per year (2012 U.S. dollars; Follman, Lurie, Lee, & West, 2015). The data revealed the largest direct expense to be long-term prison costs of offenders (\$5.2 billion) and the largest indirect expense associated with victim's quality of life post-gun injury (\$169 billion). With regard to Kentucky, this analysis estimated that gun violence costs Kentucky \$783 per capita each year, which is the 23rd highest cost per capita of the 50 states (Follman, Lurie, & Lee, 2015).

Another aspect related to the costs of intimate partner-related gun violence is the cost to communities to police and implement protective strategies that disarm abusers. There is little research that has investigated the cost-benefit tradeoff of implementing gun

restrictions. One report revealed that the implementation of a gun registration law in Canada cost \$70 million versus a total annual cost of \$5.6 billion for firearm-related injuries (2001 U.S. dollars; Miller, 1995; Waters et al., 2004). Some researchers have investigated economic cost to the justice system and community (i.e., taxpayers) with regard to justice procedures that protect IPV victims. For example, Logan, Walker, & Hoyt (2012) investigated the cost-benefit analysis of protective orders when investigating the economic costs, in 2007 U.S. dollars, of IPV in Kentucky. They estimated that the issuance of a protective order cost \$354.37 and that a protective order resulted in an average savings to the economy per victim of \$4,665. Protective orders were estimated to save taxpayers \$85 million per year in this state. Protective orders are considered to be a relatively effective protective measure for IPV victims in Kentucky (Logan et al. 2009) and given that gun removal can be mandated as part of a protective order condition, gun prohibition for protective order respondents may be a potentially cost-saving procedure in the long-run for taxpayers. However, policing gun restrictions also requires resources such as police personnel and storage space for confiscated weapons, which must be taken into account in a cost-benefit analysis.

1.3 Protection from Abusers with Guns

Federal law prohibits felons, protective order respondents, and individuals with domestic violence misdemeanor convictions from possessing or obtaining guns (18 U.S.C. § 922[g][1] [8],[9]). Despite the problem of gun-related intimate partner homicide in Kentucky, there are no uniform state laws that prohibit non-felon protective order respondents or non-felon individuals convicted of domestic violence misdemeanors from possessing firearms. The lack of a state domestic violence gun law results in the inability

for non-federal local law enforcement to confiscate firearms under a state statute. Kentucky does, however, have a state law that prohibits felons from owning firearms (KRS 527.040). It is unfortunate that Kentucky does not have domestic violence gun laws restricting non-felon abusers from guns given that research has shown that the implementation of state law that prohibits a domestic violence protective order respondent from possessing a gun is associated with a 9% statewide (Vigdor & Mercy, 2006) to 25% citywide (Zeoli & Webster, 2010) decrease in firearm-related intimate partner homicides in states with such a law.

The failure to mirror federal laws may also send a message that in Kentucky, it is not illegal for convicted domestic violence abusers to possess firearms despite the existence of federal law (Lynch & Logan, unpublished data). This is extremely problematic for the protection of domestic violence victims given that in a Kentucky intimate partner fatality report, offenders were more likely to kill their partner with a firearm than all other means combined (Logan & Lynch, 2014). The belief that a state should ignore federal gun laws is also entwined with political ideology. A report by the Pew Research Center (2013) found that only 18% of Democrats, versus 58% of Republicans, agreed that a state should be allowed to ignore federal gun laws. Kentucky is generally a rural state, with political conservatism particularly salient in rural communities; therefore the decision to enforce federal gun laws may not be a popular decision in many communities in Kentucky.

1.3.1 The Kentucky justice system response. Protections from domestic violence in Kentucky are limited but do include protective orders, which as mentioned earlier, are civil injunctions against further abuse and violence. However, gun

confiscation is not a standard condition of a protective order in Kentucky but can be added on as an additional protective order condition. Some counties in Kentucky have attempted to remedy the issue by creating conditions of EPOs and/or DVOs that require protective order respondents to surrender their firearms (Lynch & Logan, unpublished data). During this process, the Judge hearing the protective order will typically make a note on the protective order that the respondent is not to possess firearms during the duration of the order and must relinquish any guns. The respondent then has 24 hours to surrender his or her firearms to the Sheriff's department. Sometimes a member of law enforcement from the Sheriff's department may show up at the respondent's residence to confiscate the firearms (Lynch & Logan, unpublished data). If the respondent is caught with a firearm during the protective order, then he or she is charged with a protective order violation. Although protective orders have been shown to be effective in reducing further contact and abuse of IPV victims in Kentucky (Logan et al. 2009), deaths continue to occur and gun removal from an abuser is not a routine part of the protective order process, as such mandated gun removal is not state law. In fact, very little is known regarding the uniformity of this procedure across Kentucky.

Effective enforcement of gun removal from abusers following a protective order hearing appears to be a critical component of reducing intimate partner homicide. For example, one study (Vittes & Sorenson, 2008) found that about 1 in 5 female intimate partner homicide victims who had a protective order against their partner were killed within two days of the order being issued. Further, over 1 in 3 female victims were killed within 30 days of the order being issued. Whether abusers kill their victims in retaliation of the protective order or a victim issues the protective order because she feels she is in

danger, it would appear that the time following the issuance of a protective order can be very dangerous. It is important to note that many victims of intimate partner homicide do not seek protective orders before their death. Statewide reports revealed that only 9% of female victims of intimate partner homicide in North Carolina (Morraco et al., 1998), 11.3% of female victims in California (Vittes & Sorenson, 2008), and 20% of female victims of intimate partner homicide in Kentucky (Logan & Lynch, 2014) ever filed for or obtained a protective order against their offenders prior to the homicide.

In addition to filing for protective orders, victims of domestic violence can also seek criminal justice protection by making calls to the police and filing for criminal charges against their abusers (Campbell, 2004; Logan & Lynch, 2014; Moracco et al., 1998). Campbell (2003) found that abuser arrest was a protective factor against intimate partner homicide for women in abusive situations. Although women may seek protection from the criminal justice system prior to their death, protections from intimate partner homicide, particularly involving firearms, can be limited. Therefore, research is needed to better understand why women in high risk situations seek criminal or civil justice remedies and what can be done to increase the likelihood that women will do so.

1.3.2 Complexities to protection from intimate partner-related gun violence.

It is impossible to investigate ways to better protect IPV victims from fatalities and gun violence without taking into account the social and political complexities about both violence against women and guns. When studying issues related to violence against women, with IPV in particular, there are cultural and social norms (e.g., domestic violence is a private, family issue) that can complicate beliefs about laws or policies that protect women (1 is 2 Many, 2014; Logan et al., 2009). For example, expanding laws in

Kentucky to allow a member of a dating couple (i.e., non-married, no children together) to seek quick protective orders has been an important political issue that impacts the protection of many at-risk intimate partners (Blackford, 2015); nearly one half (48.6%) of women killed by intimate partners in the U.S. were killed by a dating partner (Cooper & Smith, 2011).

Cultural and social complexities are closely entwined with political issues related to gun control, and this relationship must be considered when implementing gun control policy. Gun control is a hotly debated issue in the U.S. as rhetoric related to gun violence and regulation have been pushed to the forefront of political and scholarly discussion (see Webster & Vernick, 2013). In a study investigating IPV victims' views about gun violence and protections (Lynch & Logan, 2015), many women felt that guns are not always a negative thing and that it is important for victimized women to have the right to a firearm for protection if so desired. Some women expressed concern that mandating gun removal as part of a protective order may result in increased risk of retaliation of an abuser and community shame—particularly in rural communities where guns are a large part of hunting culture. Therefore, it is important to balance the rights of individuals, including victims of violence who would like to own a gun, with efforts to protect those at risk from gun violence. Relatedly, if mandatory gun confiscation deters women in rural communities from seeking protective orders, then the policy may not be as helpful for protecting victims of IPV. This policy may have different consequences in urban versus Appalachian Kentucky, making the “right answer” to better protect IPV victims a complicated issue.

In Kentucky, prohibiting firearms as part of a protective order is a justice system remedy that goes above and beyond standard conditions of a protective order. Such prohibition requires an active decision of a Judge, additional advocacy on behalf of victims to ask for gun removal, and additional justice system resources to enforce the court order. There are several reasons why court-ordered gun confiscation as part of a protective order may not occur in a community. First, enforcing conditions above and beyond standard conditions of a protective order, such as mandated gun removal, require justice system resources (e.g., personnel, money, and space to store the weapons). It may not be feasible for communities to implement additional procedures that require further work for courts and law enforcement. Relatedly, communities with more victim service resources may be more apt to advocate for additional gun removal procedures during a protective order and create community task forces or initiatives to draw attention to the issue of intimate partner-related gun violence.

Second, initiatives related to intimate partner gun violence may not be a top priority for agencies in communities with limited resources and other major criminal justice issues to handle. For example, many communities in Appalachian Kentucky are faced with major issues related to drug use and drug-related crime (DEA, 2005; Logan et al., 2009). Drug crimes can be seen as a higher priority for law enforcement than additional gun confiscation procedures if the number of intimate partner homicides in the community is greatly outnumbered by drug-related crime. This was evident in Logan et al. (2009)'s investigation of urban and Appalachian key professionals' perceptions of priority crimes in their communities. Both criminal justice and victim service professionals in Appalachian communities reported that drug and alcohol crimes were the

top priority in their community and twice as many Appalachian professionals reported drug and alcohol crimes as their community's top priority compared to urban professionals.

Third, differences in community cultural norms can impact whether or not court ordered gun confiscation occurs during a protective order. Gun ownership is twice as high in rural communities in comparison to urban cities (Pew Research Center, 2013). With regard to Appalachia specifically, one study found that gun ownership was twice as high in a sample of West Virginia, Appalachian college students (70%) compared to the national average (34%; Mills & Mills, 2014). Rural communities with a strong hunting culture and anti-gun control position may not view additional court-ordered gun confiscation as a positive policy in their community. Relatedly, Judges and Sheriffs are elected officials and enforcing gun control procedures that are not state law may not be a popular decision in small communities.

1.4 Implementing Firearm Protective Procedures: An Adapted Framework

Researchers use models of health behavior to investigate why individuals engage in health and safety promoting behaviors that protect against risks. The most commonly used model of health behavior is the health belief model (Hochbaum, 1958), which involves a tradeoff between the perceived risk of a problem, the benefits, and barriers of engaging in a protective behavior. As classic examples, the health belief model has been used to investigate how mammography screening (e.g., Champion & Menon, 1997; Champion, Skinner, & Foster, 2000) and HIV/AIDS protection (e.g., Maguen, Armistead, & Kalichman, 2000; Steers, Elliot, Nemiro, Ditman, & Oskamp, 1996) can be increased. According to the health belief model, the likelihood of engaging in a protective behavior

(e.g., condom use) is impacted by the perceived risk of the health/safety problem (e.g., risk of contracting HIV), the benefits of engaging in the protective behavior (e.g., condom use will effectively reduce risk of contracting HIV), and the barriers to engaging in the protective behavior (e.g., too embarrassed to buy condoms). The present study's guiding conceptual framework were largely adapted from the main components of the health belief model (i.e., perceived risk, benefits, and barriers) when investigating potential factors that may impact a community's likelihood to consistently implement gun confiscation procedures (i.e., protective behavior).

Although the health belief model contains important elements that help explain how individuals respond to a health or safety issue, it is missing components that be important in the context of the present study. First, the health belief model does not contain a component that assesses attitudes about engaging in a protective behavior, which may be of particular importance when investigating the implementation of hotly debated issues such as gun control. To address this issue, the notion of "normative beliefs" will be incorporated into the present study's guiding framework. Normative beliefs, taken from the theory of reasoned action (Fishbein, 1967), assess how one believes others will approve or disapprove about implementing a protective behavior (Fishbein & Ajzen, 1975). Using the example of condom use to prevent HIV transmission as described above, the belief that potential partners would disapprove of using condoms would be in example of incorporating normative beliefs in the decision to use condoms. Given the political and sometimes controversial nature of gun control, it is necessary to include an evaluation of normative beliefs regarding guns and gun control in the guiding conceptual framework.

Second, because the health belief model is used for investigating an individual's response to a health or safety problem and not a community's response, a measure of community context that allows for a community to respond to intimate partner-related gun violence is needed. Therefore, the construct of "community readiness" (Edwards, Jumper-Thurman, Plested, Oetting, & Swanson 2000; Oetting et al., 1995), which assesses a community's ability to implement interventions/programs that address community issues, was incorporated into the present study's guiding conceptual framework. The prevention of intimate partner homicide and/or gun violence may be an important issue within a community; however if a community does not contain the infrastructure (e.g., high risk domestic violence programs, agreement between the courts and law enforcement to confiscate weapons) then it will not be able to implement gun confiscation.

In sum, because a unifying model does not exist that incorporates the perceived risk of a problem, costs/benefits, and normative beliefs surrounding the implementation of protective policies at the community-level, a conceptual framework was adapted based on existing health behavior and community action models. The proposed guiding conceptual framework (Figure 1) is exploratory in nature and guided the research questions, interview content, and analyses in the present study. Previous research has adopted individual health behavior models, such as the health belief model, to investigate how individuals can decrease their *own* risk of a negative health consequence.

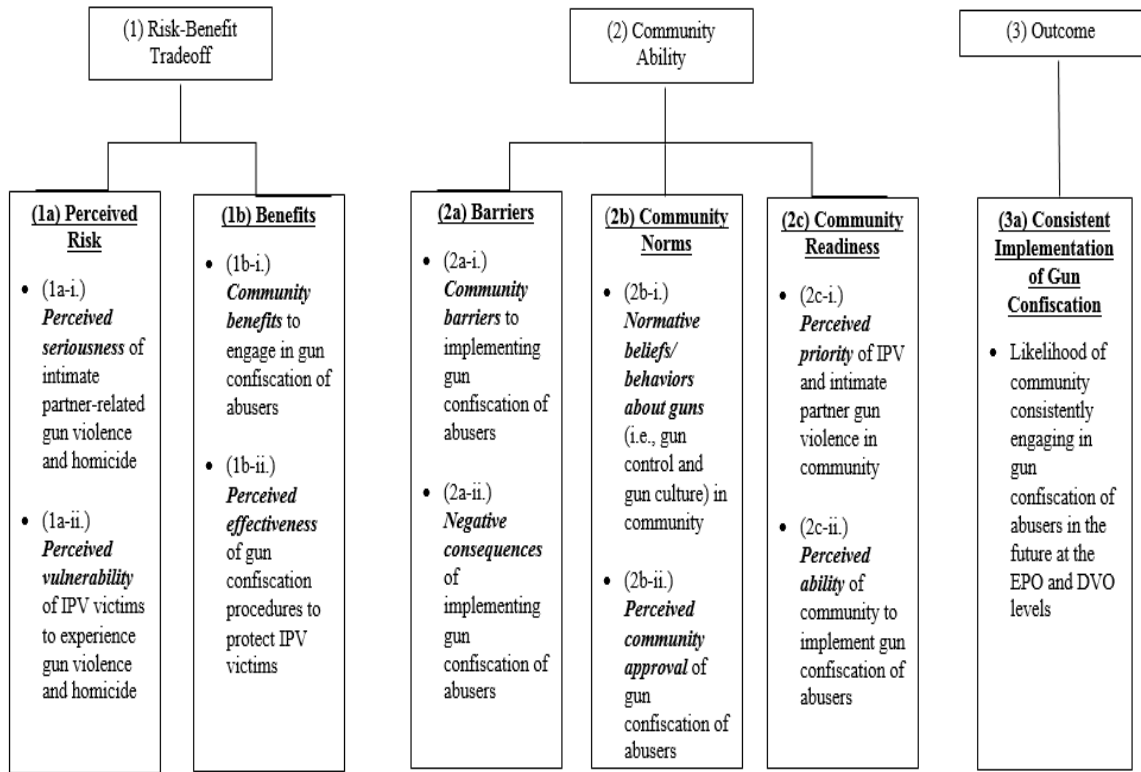


Figure 1. Guiding conceptual framework of the measures in the present study

However, the guiding conceptual framework of the present study was used to investigate key professionals' assessment of their community priorities and response to intimate partner-related gun violence. The health belief model, for example, has been applied to reduce smoking (Janz & Becker, 1984), reduce sun tanning (Lamanna, 2004), and increase the use of bike helmets (Ross, Ross, Rahman, & Cataldo, 2010), which each have local laws or policies (e.g., mandatory helmet use) in the U.S. Relatedly, the theory of reasoned action has been applied to reduce behavior that can be illegal, such as driving after alcohol consumption (Gastil, 2000) and alcohol consumption in college students (Huchting, Lac, & LaBrie 2008). Therefore, the application of an individual health

behavior model to a public health issue that requires a criminal justice response is not unprecedented.

1.4.1 Components of the guiding conceptual framework. Overall, the present study's guiding conceptual framework, as seen in Figure 1, is comprised (1) a tradeoff between the risks of gun violence and the benefits to implementing the procedures (i.e., risk-benefit tradeoff) and (2) a community's ability to implement gun confiscation. Within these overarching aspects of the framework, guiding conceptual framework consists of five primary components: (1a) the perceived risk of intimate partner-related gun violence, (1b) benefits to implementing gun confiscation procedures, (2a) barriers to implementing gun confiscation procedures, (2b) community norms related to gun culture and beliefs about gun control, and (2c) community readiness to engage in gun confiscation procedures. These components are all thought to then influence (3) a community's likelihood to consistently implement gun confiscation procedures (i.e., outcome). Each of the five primary components and the outcome measure of the guiding framework are discussed in detail below.

Perceived Risk (1a). The perceived risk of intimate partner-related gun violence in the community is a component taken from the health belief model (Hochbaum, 1958). It is comprised of two primary factors: (1a-i.) the *perceived seriousness* of intimate partner-related gun violence and (1a-ii.) the *perceived vulnerability* or risk of IPV victims to experience gun violence (Janz et al., 2002). The perceived seriousness assesses perceptions of the dangerousness of gun violence in IPV situations. Perceived vulnerability assesses participants' perceptions of how vulnerable or at risk women in IPV situations are to experience gun violence and injury/death. To assess perceived

seriousness and vulnerability, participants can be asked to rate the seriousness, dangerousness, and prevalence of gun violence within the context of IPV.

Benefits (1b). Assessing the benefits of engaging in a response is a key component of the health belief model (Janz et al., 2002) and consists of the following two factors: (1b-i.) listing *community benefits* to the gun confiscation policy and (1b-ii.) assessing the *perceived effectiveness* of the gun confiscation policy. Previous research has shown that people who see engaging in a preventative behavior as a helpful way to reduce one's risk are more likely to engage in the behavior than those who do not view the behavior as helpful (Frank, Swedmark, & Grubbs, 2004; Graham, 2004). Asking participants to rate the effectiveness of a response is the primary way to assess response benefits in the health belief model (Janz et al., 2002). Measuring community professionals' beliefs about the effectiveness of gun confiscation procedures is an integral aspect of understanding why a community is likely to implement these procedures. As mentioned before, mandatory gun confiscation for protective order respondents is an additional condition to a protective order and requires additional resources to enforce. Previous research has found that the effectiveness of a protective response is most strongly related to the likelihood of engaging in the behavior if the participant has high knowledge about the problem (i.e., expertise; Martin, Bender, & Raish, 2007). Therefore, if community professionals who are involved in advocating or deciding whether this procedure is implemented do not believe it is an effective solution to protect IPV victims, then the likelihood of gun prohibition as part of a protective order is unlikely to occur.

Barriers (2a). Barriers to engaging in protective response is a component taken from the health behavior model (Janz et al., 2002) and consist of the following two

factors: (2a-i.) reporting existing *community barriers* to implementing gun confiscation, and (2a-ii.) listing *negative consequences* to the gun confiscation policy. In the present study, barriers may consist of community obstacles, such as economic costs, limited resources, community priorities, and beliefs against gun restriction policies, which may interfere with implementing mandated gun confiscation of abusers. According to the health belief model, barriers should decrease the likelihood of a protective response (Glanz et al., 2000; Rosensock, 1974). A meta-analysis investigating the predictive value of the health belief model for behavior change in adults found that benefits (i.e., effectiveness of response) and barriers were the strongest two predictors of behavior change (Carpenter, 2010). However, there is evidence that barriers have a stronger impact on engaging in a protective behavior (Janz & Becker, 1984). Research has shown that barriers alone can outweigh both the perceived risk and benefits of engaging in a behavior (Champion, 1993; Champion & Menon, 1997; Ellingson & Yarber, 1997; Umeh & Rogan-Gibson, 2001).

Community norms (2b). Although living in a community where beliefs against gun restriction policies may act as a barrier, understanding cultural norms within a community is an integral aspect of implementing gun-related policies. Community norms consists of two factors: (2b-i.) *normative beliefs/behaviors about guns* in the community and (2b-ii.) the *perceived community approval* of implementing the gun confiscation policy. Normative beliefs are a component of the theory of reasoned action (Fishbein, 1967) and refer to how others may approve or disapprove of a behavior (Fishbein & Ajzen, 1975). Normative beliefs are considered to be a strong component of subjective norms (Ajzen, 1991), which refer to social pressures that influence one to engage in a

behavior. Normative beliefs are typically measured by asking participants to rate how much they think others would approve or disapprove of engaging in a protective behavior and how often participants believe a particular behavior occurs (Glanz et al., 2002)

Community readiness (2c). Community readiness (Edwards et al., 2000; Oetting et al., 1995) consists of the stages that a community goes through to implement efforts to reduce a problem. It has been commonly used to assess a community's readiness to implement preventative programs to reduce substance use (e.g., Oetting, Jumper-Thurman, Plested, & Edwards, 2001), but has also been used to assess a range of issues from Aids/HIV (e.g., Vernon & Jumper-Thurman, 2002) to sexual violence (DeWalt, 2012). Community readiness, in the present study, consists of two factors: (2c-i.) the *perceived priority* of IPV and intimate partner gun violence in the community and (2c-ii.) the *perceived ability* of the community to implement gun confiscation procedures. The notion behind community readiness is that an intervention or program aimed at reducing a problem will not succeed if the community does not have or is not able to have a vested interest in implementing the program (Edwards et al., 2000). Factors that impact community readiness consist of community knowledge of efforts, leadership, community climate, community knowledge of the issue, and resources (Oetting et al., 1995). These factors are typically assessed descriptively (i.e., qualitatively) through key informants (Edwards et al., 2000), by asking a key informant provide their knowledge of current efforts toward gun removal in their community, for example.

Consistent implementation of gun confiscation (3a). The primary outcome measures in the present study consisted of continuous likelihood ratings of consistently implementing various gun confiscation procedures in the future. The framework assessed

if gun confiscation procedures will *consistently* occur in the future so that the results will capture regular implementation of gun confiscation rather than the likelihood of gun confiscation procedures occurring at least one time in the community. Communities can range in both the existence and consistency of their gun confiscation procedures, but the regular occurrence of such procedures were of interest in the present study. It is important to note that meta-analyses investigating the predictive value of the health belief model suggest limitations in the model's ability to accurately predict long-term behavior change (Carpenter, 2010; Harrison, Mullen, & Green, 1992). However, the goal of the present study was not to predict if a community will or will not engage in gun removal procedures in the future. Rather, the components of the model will be used as a guiding framework to examine if, how, and why gun removal in IPV situations occurs or does not occur in communities in Kentucky that differ in culture and resources.

1.5 Key Informant Methodology

In the pursuit of understanding a community's ability and willingness to implement gun confiscation procedures, it is essential to gain an understanding of the context of intimate partner-related gun violence in the community, cultural norms in the community, and priorities/culture of key community agencies. As a means to understand such contextual information of the targeted communities in the present study, a key informant methodology was employed. A "key informant", who will be referred to as a key professional when referring to participants in the present study, is an individual who is an expert or has detailed knowledge of a particular issue. Therefore, key informant methodology involves targeted sampling of a specific type of participant; in the case of the present study, a person with an expertise or professional experience with domestic

violence and gun violence. When using this methodology, data are collected via interviews (i.e., a key informant interview), typically using both qualitative and quantitative measures, to gain a deeper understanding of a certain issue.

Key informant interviewing started as an ethnographic research method in anthropology but is now used in a variety of social sciences, including sociology and psychology, and in the medical field (Marshall, 1996). For example, the World Health Organization (2001) collects information about adequate responsiveness in health care systems across the world using key informant interviews as a means to improve each countries' health care system. Locally, key informant surveys have been used to gain a better understanding of a variety of issues and policies in Kentucky, including differences in attitudes about the access and effectiveness of protective orders in urban and Appalachian communities (Logan et al., 2009), human trafficking (Cole & Anderson, 2013; Logan, 2007), HIV, and drug use in Appalachian communities (Leukefeld, Walker, Havens, Leedham, & Tolbert, 2007).

Key professionals are chosen as the target sample over the general population for several reasons. Primarily, this methodology serves as a useful tool to gain a better understanding of the context surrounding an issue from the perspective of relevant professionals who have appropriate knowledge of a specific study population or topic (e.g., Marshall, 1996; Tremblay, 1957; Warheit, Buhl, & Bell, 1978). If a goal of the research is to better understand an issue to inform policy, it would be beneficial for participants to have appropriate knowledge about that given issue. Individuals in the general population may have opinions about a general issue (e.g., guns), but are not likely to be aware of specific procedures or policies related to the issue (e.g., mandatory gun

confiscation as part of a protective order). As a result, the data will not reflect a deeper understanding of a particular problem and are not likely to provide insight for how to improve procedures and/or policy.

Although there are advantages to choosing key informant methodology, there are also limitations to using key informant interviewing. A key informant sample is a targeted sample, therefore not generalizable to the general population (Luloff 1999; Marshall, 1996; Williams, 1967). However, this method is not intended for research aiming to collect data that is generalizable to the general population. Data from key professionals with knowledge of a similar topic (i.e., domestic violence and gun violence) can be aggregated together to provide insight to a particular issue—not to represent how those in the general population may feel. This method is chosen to gain a deeper understanding of an issue that can help inform policy and practice (Elmendorf & Luloff, 2006).

1.6 Urban and Appalachian Kentucky

Further complicating the investigation of intimate partner homicide protective procedures in Kentucky are the contextual differences regarding IPV and criminal justice remedies to IPV between urban and rural Kentucky (e.g., Logan, Walker, Cole, Ratliff, S, & Leukefeld, 2003; Logan et al., 2009; Websdale, 1998). In the present study, Appalachian counties in Eastern Kentucky were selected for the rural communities, thus the terms “rural” and “Appalachian” Kentucky may be used interchangeably. Eastern (Appalachian) Kentucky (see Figure 2) is distinct from the rest of the state as Appalachian Kentucky is more impoverished than non-Appalachian Kentucky, yielding lower household income and per capita income rates (Appalachian Regional

and rural, Appalachian Kentucky when studying the enforcement of domestic violence protective orders and allocation of criminal justice resources. Logan et al. (2009)'s investigation found that crimes related to violence against women were seen by community professionals as a lower priority than other crimes (e.g., drug crimes) in Appalachian communities compared to the sampled urban community. Logan et al. (2009) also found that access to protective orders is more difficult (i.e., involves more barriers) in Appalachian versus urban communities.

There are several cultural and historical reasons for why responses to intimate partner-related gun violence may be different in Appalachian Kentucky. First, Appalachian communities are typically more socially and politically conservative, with a stronger adherence to traditional gender role beliefs (Bush & Lash, 2006; Drake, 2001; Gagne, 1992; Pruitt 2008a; 2008b; Websdale, 1998). Religious (i.e., Fundamentalist) beliefs that are strong in Appalachian Kentucky may contribute to traditional views of gender roles (Drake, 2001). Logan, Stevenson, Evans, and Leukefeld (2004)'s investigated urban and Appalachian rape survivors' perceived barriers to help-seeking services and found evidence of a tendency for Appalachian women to be more accepting of traditional gender roles as part of life. For example, sentiments that abuse is something that "men do to women" was more salient in Appalachian women's responses than of urban women's responses. Further, economic gender inequality has been well documented in Appalachian communities, as women and children of Appalachia historically experience the "heaviest burden of poverty and income disparity" (Eller, 2008, p. 234). It is estimated that 70% of households with a female primary provider and children under 6 years old have incomes below the national poverty level (Eller, 2008).

Given that economic independence is an important part of leaving abusive relationships, there are considerable difficulties for Appalachian women to leave an abusive situation.

Second, there is a strong tendency in Appalachian culture for residents to keep personal/family problems private, which can result in a lower inclination to use public services (Billings & Bee, 2000). Additionally, self-reliance is a strong aspect of Appalachian culture, also reducing residents' willingness to seek public help or services (Webb, 2004). These cultural factors have direct consequences for studying issues related to IPV. Given that IPV often occurs in a private setting (i.e., at home) and can often be considered a familial issue, seeking help in Appalachia may be frowned upon. For example, Logan et al. (2004) found that although embarrassment was a barrier to seeking helpful services for both urban and Appalachian victims, Appalachian women focused more on specific Appalachian cultural stigma. One Appalachian participant said, "There is a lot of pride in the mountains so many people or even whole communities don't want to ask for help" (Logan et al., 2004, p. 47).

Third, there are cultural differences that may impact issues of gun violence and gun control in Appalachian Kentucky. As mentioned before, Appalachian residents have a history of conservative political beliefs (Bush & Lash, 2006), and political conservatism is typically strongly associated with pro-gun/anti-gun control beliefs (Pew Research Center, 2013, 2014; Swift, 2014). In the 2012 Presidential election, the selected urban county in the present study yielded a Democratic majority and the selected Appalachian counties each yielded a Republican majority (Politico, 2012). Therefore, policies that require any restriction to gun ownership, especially if they are not *state* law, may be unpopular in Appalachian communities. Lynch and Logan (2015)'s study of IPV victims'

views on gun violence and gun control policies found that confiscation of an abuser's firearm may actually deter women from seeking a protective order. One participant stated that she did not seek a protective order in her rural community because she would be shamed by her community if her abuser's guns were confiscated.

Relatedly, the strong hunting culture in Appalachia may contribute to implementing policies that can potentially disarm individuals who frequently use firearms for sport. The Pew Research Center survey (2014) found a close tie between hunting culture and gun ownership as 37% of individuals who lived in a gun-owning household described themselves as a "hunter, fisher, or sportsman" (compared to 16% of non-gun ownership households). Gun ownership is higher among rural communities, with a report by the Pew research center (2013) showing that those living in rural communities (39%) were twice as likely to report that they owned a gun compared to those living in urban cities (18%). Researchers have also pointed out differences in urban versus rural uses for firearms, finding that urban youth are more likely to carry a gun for protection, intimidation, and to gain respect, while rural youth were more likely to carry a gun for sport (Slovak & Singer, 2001, 2002). Therefore, gun confiscation can come with a deeper consequence for Appalachian residents as a firearm has a common, sometimes daily, use.

1.6.2 Community professional agency type context. When employing a key informant methodology, it is important to consider the participants' agency type and professional experience. Differences in victim services and justice system professionals' experiences with IPV victims can lead to different impressions of victims and the suggested responses to help these victims. On one hand, victim service professions include occupations such as victim advocacy, counselling, and shelter/crisis staff, where

professionals work closely to help victims. On the other hand, victims of IPV can feel blamed by the police or other criminal justice members versus comfort from victim advocates (Lynch & Logan, 2015), which can then contribute to ways that victims seek protective remedies. Further, law enforcement, a large component of a justice system key professional sample, carry a firearm and are experienced with guns. Victim service professionals do not (typically) use firearms as part of their profession. Although the purpose of the present study is not to assess how participants personally feel about IPV or guns, it cannot be ignored that justice system versus victim service professionals may view the problem of gun violence differently given their different experiences with guns. This may create differences in how participants view their community's problem and solution to gun violence—especially in rural communities where guns are very much a part of everyday life.

Thus, it is vital to consider the interactive effect of participants' agency type (i.e., victim service versus justice system) with their community type (i.e., urban versus rural). For example, criminal justice professionals in Appalachian communities may respond to IPV in a more biased way. Logan et al. (2004) dubbed this the "good ol' boys network", meaning that the politics of the criminal justice system in rural communities, which is primarily male driven, can make it hard for a woman to seek justice/separation from an abuser. Appalachian women in Logan et al. (2004)'s sample reported that the response from the criminal justice system often depended on the status of the abuser in the community. Some rural women mentioned that if an abuser is well-connected in the community or is wealthy, that victims would not likely be treated fairly by the justice systems or would be ignored by justice system professionals. Further, using key

informant interviews, Logan et al. (2009) found that rural criminal justice professionals were more likely than urban criminal justice professionals to place blame on a victim when listing reasons why an abuser violated a protective order. Similar sentiments were evidenced in Lynch and Logan (2015)'s investigation of opinions about gun violence and gun policies using urban and rural shelter women in Kentucky. Women, particularly from rural communities, often discussed the impact of local politics on their experiences with the criminal justice system and that law enforcement would not take them seriously.

Relatedly, Websdale (1997) investigated Appalachian and urban IPV victims' experiences with police in Kentucky. Urban victims yielded higher agreement ratings than Appalachian victims that during a domestic violence call, the police removed the abuser from the home, jailed the abuser for more than 12 hours, and informed the victims of her rights. Urban women also reported their experiences with the police in a more positive way. The community response of key professionals who come into contact with victims is an important component of providing services and protection to IPV victims and can impact if and how a victim chooses to seek help from an abuser. If victims feel blame or distrust from the justice system, for example, they may be hesitant to seek justice system remedies to the violence in the future

Chapter 2: The Present Study

The goal of the present study was to explore why and how communities differing in culture and resources implement procedures that mandate gun confiscation as part of a domestic violence protective order. Specifically, the present study investigated whether the perceived risk of intimate partner homicide and gun violence, benefits to engaging in gun confiscation, barriers to gun confiscation, community norms about guns, and community readiness to implement gun confiscation, (1) differ in urban and rural communities, (2) are perceived differently by victim service and justice system key professionals within urban and rural communities, and (3) are associated with if a community will consistently implement procedures that mandate gun confiscation of abusers as part of a protective order.

A key informant methodology was used to gain an understanding of community and agency contextual factors that may impact if gun confiscation procedures occur in a community. Interviews were conducted with key professionals who work both in victim services and the justice system from a targeted urban community and four Appalachian (i.e., rural) communities. It is important to note that the present study was not a statewide investigation of IPV gun confiscation procedures. Rather, it was a detailed comparison of community context in an urban county that makes known efforts to confiscate protective order respondents' guns and a group of counties in rural, Appalachian Kentucky where little is known about any efforts to address intimate partner-related gun violence. A rural, Appalachian sample was chosen to provide a specific contrast to an urban location given the differences in community culture and access to resources. Data from interviews with all key professionals in the selected urban and rural communities were aggregated to

provide insight into how communities may or may not implement gun confiscation procedures of abusers.

2.1 Structured Interview

To address the primary goal of the study, the proposed study used a structured interview with both open- and close-ended questions. There are views that quantitative and qualitative data cannot and should not be mixed (i.e., “the incompatibility thesis”; Howe, 1988) given that quantitative research is grounded in objectivity and confirmation, while qualitative research is thought to be inherently subjective and exploratory (Guba, 1990). However, using both open- and close-ended questions allow for researchers to draw on the strengths of both quantitative and qualitative methodologies (Johnson & Onwuegbuzie, 2004). In fact, the “fundamental principle of mixed research” (Johnson & Turner, 2003) posits that researchers should collect data using multiple data forms that complement each other’s strengths while reducing overlapping weaknesses. Thus, quantitative analyses allow for numerical measurement outside of the researcher’s interpretation of a response and statistical analyses; qualitative research allows one to capture the context and complexity (or detail) of an issue that numerical data cannot capture. As a result, qualitative data should support or compliment quantitative data.

There are several ways that using both open- and close-ended measures can be used to strengthen research. Qualitative data can be used to further support quantitative analyses, a process known as triangulation (Webb, Campbell, Schwartz, & Sechrest, 1966). Additionally, using both quantitative and qualitative data can allow a researcher to assess a broader range of research questions that quantitative or qualitative research alone can answer. Relatedly, information can be uncovered from open-ended questions that

otherwise would not have been found in the results if only close-ended questions or if ratings scales were used. For example, key professionals were asked both to rate the magnitude of several potential barriers to implementing gun confiscation in their community and to list potential barrier in their community. This was done to ensure that information is collected about all community barriers and not just the ones that are listed in the close-ended question. Thus in the present study, the research questions were answered using both numerical data (i.e., quantitative) and open-ended responses (i.e., qualitative data) to capture the full context and detail of participants' responses.

2.2 Research Questions

In many ways the present study is exploratory in nature and the appropriateness of the measures included in the guiding conceptual framework in relation to implementing gun confiscation procedures is a research question in itself. However, the following research questions were addressed:

1. *Are there differences in the perceived risk of intimate partner homicide and gun violence, benefits to engaging in gun confiscation, barriers to gun confiscation, community norms about guns, and community readiness to implement gun confiscation work between urban and rural communities?*

Components of the guiding conceptual framework (Figure 1) should differ between urban and rural communities. For example, rural communities should report more community barriers to gun confiscation than the urban community, and the urban community should have a higher perceived ability to enforce gun confiscation than rural communities

Is there a community type x agency type interaction for the perceived risk of intimate partner homicide and gun violence, benefits to engaging in gun confiscation, barriers to gun confiscation, community norms about guns, and community readiness to implement gun confiscation?

Main effects of the community type for the components of the conceptual framework (Figure 1) may differ when reported by victim service versus justice system professionals. For example, it is likely that rural justice system professionals will report the lowest perceived risk of intimate partner gun violence/homicide in comparison to urban justice system professionals and all victim service professionals.

- 2. What is the relationship of the risk-benefit tradeoff components (i.e., perceived risk of intimate partner homicide/gun violence and benefits to engaging in gun confiscation) and community ability components (i.e., barriers to gun confiscation, community norms about guns, and community readiness to implement gun confiscation) with the likelihood for a community to consistently implement gun confiscation in the future?***

It is expected that higher perceived risk ratings, higher benefits to gun confiscation ratings, fewer reported community barriers, lower estimates of cultural behaviors and attitudes related to gun culture, higher agreement with community approval of gun confiscation, and higher community readiness ratings will be associated with an increased likelihood to consistently implement gun confiscation ratings.

Chapter 3: Method

3.1 Design

The present study employed a 2 (Community Type: urban versus rural [Appalachian]) x 2 (Agency Type: victim services versus justice system) quasi-experimental design.

3.2 Participants

3.2.1 Recruitment

Counties. The selection of the counties used for sampling was similar to that in Logan et al. (2009). Based on Logan et al. (2009)'s work, it is estimated that the selected four rural, Appalachian counties should produce a similar number of key professionals as the one selected urban county. The present study used Fayette County for the urban sample and Pike, Floyd, Johnson, and Perry counties for the rural sample (see Figure 3). The census data for each county can be seen Table 1 and the number of EPO's and DVO's from 2012 for each county are shown in Table 2. Each county processes about the same proportion of protective orders in relation to its population and has some form of local victim services, such as shelters and crisis centers. All four of the rural counties are in a similar geographic region of Eastern Kentucky and are classified as either economically distressed or at risk, meaning that they are ranked within the worst 15 percent of counties in the U.S. with regard to economic standing (Appalachian Regional Commission, 2014b).



Figure 3. Location of sampled counties

Table 1: Census data for the targeted urban and rural counties

	Population ¹	Median Household Income ²	% Below Poverty Rate ²	% High School Graduate ^{2,3}
<u>Urban</u>				
Fayette	310,797	\$48,398	18.9%	88.6%
<u>Rural</u>				
Floyd	38,108	\$30,476	28.9%	73.6%
Johnson	23,262	\$34,090	24.3%	74.2%
Perry	27,597	\$33,528	25.3%	69.0%
Pike	63,034	\$32,961	23.4%	71.9%
Total Kentucky	4,413,456	\$43,036	18.8%	83.0%

¹2014 estimate

²2009 to 2013 estimate

³High school education or higher persons 25 years old or older

Note. Kentucky census data retrieved from: <http://quickfacts.census.gov/qfd/states/21000.html>

Table 2: *Number of protective order cases in 2014 for the sampled counties*

	# Emergency Protective Orders	# Domestic Violence Orders
<u>Urban</u>		
Fayette	1,037	612
<u>Rural</u>		
Floyd	134	47
Johnson	88	38
Perry	190	52
Pike	288	111
Total Kentucky	16,572	8,090

Note. All data were provided by Kentucky’s Administrative office of the Courts (AOC); AOC research and statistics reports are available online: <http://courts.ky.gov/aoc/statisticalreports/Pages/default.aspx>

Recruitment strategy. The present study used a purposeful sampling technique, followed by an adaptation of snowball sampling (Goodman, 1961), where key agencies were first targeted in each community and then individuals at these key agencies recommended other key professionals in the community. This established an initial group of key professionals who have expertise with domestic violence programs/advocacy, law enforcement procedures/personnel, gun confiscation/laws, and courtroom proceedings/personnel related to domestic violence or protective orders. Specific agencies were initially targeted to ensure that a breadth of key professionals are accessed and the recommendations for other professionals is diverse. Many of these conversations and initial key informant recruitment strategizing for the urban communities occurred during initial pilot testing in 2014 (Lynch & Logan, unpublished data). Specifically, in every county, the city police, the Sheriff’s office, judges in civil protective order hearings (i.e., typically family court judges), county and commonwealth prosecutors, victim

advocates for domestic violence cases, shelter staff, probation and parole, and legal aid attorneys were contacted as initial key agencies.

After contacting the recommended key professionals, these new key professionals then recommended other key professionals in their community. Therefore, the recruitment of key informants begins to “snowball.” This recruitment methodology has been used in previous key informant research (e.g., Bailey 1994; Cole & Anderson, 2013; Elmendorf & Luloff, 2001, 2006; Leukefeld et al., 2007; Logan, 2007, Logan et al., 2009; Luloff, 1999) and is common in public health research (Sadler, Lee, Seung-Hwan Lim, & Fullerton, 2010). This process continues until new individuals with professional knowledge related to the study are no longer recommended. As with all forms of sampling, there are disadvantages to snowball sampling (e.g., not probability sampling; see Sadler et al., 2010), however this method of recruitment is an excellent way to maximize the response rate (Sadler et al., 2010).

Sampling and saturation. Sampling procedures were similar to that in Logan et al. (2009)’s urban versus rural key informant approach. Key professionals in the present study were categorized as victim services (e.g., victim advocates, violence organization staff/workers, women’s shelter staff/workers) or justice system (i.e., law enforcement, probation and parole, county clerk, domestic violence Judges, Prosecutors, defense attorneys, jail workers). This is similar to the categorization found in Logan et al. (2009)’s key informant work investigating protective order effectiveness. Sample size guidelines for key informant methodology are not typically based on an a-priori power analysis but rather depend on the goal of the research (Charmaz, 2006; Seidler 1974). For example, for a statewide investigation, a random sample of key professionals across

Kentucky may be optimal, while saturating specific communities is optimal for an in-depth investigation of an issue in different types of communities (e.g., urban versus rural). Some have suggested that using samples of participants with expertise reduces the number of participants needed (Jette, Grover, & Keck, 2003), while others argue that there should be no “cap” on the sample size as long as non-redundant and needed information is being collected (Bernard, 2000).

Key professionals were recruited until each community reached saturation. Although there is some disagreement as to determine true saturation, some researchers have argued that saturation is not a dichotomous phenomenon but rather a matter of the degree to which a sample is saturated (Strauss & Corbin, 1998). Such researchers suggest that sampling should stop when no new information and/or sources (i.e., participants) emerge (Strauss & Corbin, 1998). Similarly, other researchers call for “theoretical saturation” where sampling stops when the information collected becomes redundant (Auerbach & Silverstein, 2003). However, to ensure that a rich understanding of each community was accessed, sampling continued until no new professionals or agencies were recommended by other participants. Therefore, saturation in the context of the present study implies that the vast majority of victim services and justice system professional with knowledge or expertise in domestic violence and gun violence within a community has been recruited.

Recruitment efforts. During the data collection period (June 2015 and January 2016), a total of 718 phone calls were made, 110 emails were sent, 18 texts were exchanged, six face-to-face meetings, and two trips to Eastern Kentucky occurred in an effort to recruit participants. On average, it took approximately 5.40 phone calls to recruit

a participant. Significantly more phone calls were made, on average, to recruit rural participants ($M = 4.60$, $SD = 3.75$) compared to urban participants ($M = 3.40$, $SD = 3.04$), $t(176) = -2.27$, $p = .024$. Conversely, significantly more emails, on average, were sent to recruit urban participants ($M = .92$, $SD = 1.39$) compared to rural participants ($M = .34$, $SD = .96$), $t(176) = 3.26$, $p < .001$. There were no significant differences in recruitment efforts between victim service and justice system professionals.

3.2.2 Final sample

Participant eligibility and final sample. Eligibility criteria for the present study included: (1) professionals who served either adult victims of intimate partner violence (i.e., victim services professional) or worked at a community-level justice system agency (i.e., justice system professional); (2) previously or currently worked as a justice system or victim service professional in one of the five targeted counties. As seen in Table 3, a total of 178 key professionals (86 urban, 92 rural) were identified through initial contact with key community agencies and recommendations from other key professionals. However, only 161 of these key professionals met the inclusion criteria of the study. Of the 17 participants who did not meet the inclusion criteria: seven participants (41.2%) did not specifically serve adult intimate partner violence victims (i.e., they worked only with children or other vulnerable populations), six participants (35.3%) did not fit the category of victim service or justice system professionals (e.g., government-appointed domestic violence committee member), and four (23.5%) participants neither previously or currently specifically served any of the targeted five counties.

Table 3: *Summary of process to achieve final sample*

	# Total	# Urban	# Rural
Number of participants initially identified or recommended by other participants	178	86	92
	<i>(-17 not eligible)</i>		
Number of participants who met study inclusion criteria	161	76	85
	<i>(-16 who said no) + (-12 who could not be reached/unable to do interview) (Total = -28 participants eligible participants not interviewed)</i>		
Number of eligible participants who were able to complete interview	133	64	69

Finally, 28 of the 161 eligible key professionals did not complete an interview. Sixteen participants refused to participate in the study (i.e., 9.9% refusal rate) and 12 participants could not be reached during the study recruitment window (i.e., 7.5% unable to contact rate). Thus, the final sample size of the present study consisted of 133 key professionals. Of the final sample, 48.1% (n = 64) were recruited from the urban community and 58.9% (n = 69) were recruited from the Appalachian communities; 40.6% (n = 54) were classified as justice system professionals and 59.4% (n = 79) were classified as victim service professionals

3.3 Materials

3.3.1 Key professional interview

Pilot Testing. An initial key informant interview related to opinions about intimate partner-related gun laws and gun removal procedures in Kentucky was developed and tested in a pilot study between May and July in 2014 using urban key

informants (n = 20) in Kentucky (Lynch & Logan, unpublished data). The key informant interview has since been adapted to that used in the present study (Appendix A). The 2014 pilot study had several purposes: collect initial data about mandated gun removal procedures in IPV situations; ensure the study design and recruitment methodology of the present study is feasible; make connections in the community; and gauge the interest of key community agencies in participation. After obtaining a grant to collect pilot data, the key informant interview was developed through: (a) an extensive literature review in the areas of psychology, sociology, community health, violence against women, and gun law; and (b) initial conversations with professionals in Kentucky (e.g., law enforcement, victim advocates, domestic violence center directors) with knowledge about gun law procedures and the impact of gun violence on IPV victims. Discussions with victims of domestic violence from both urban and rural, Appalachian Kentucky were also conducted during the pilot study. Information regarding Kentucky victims' experiences with guns violence and their opinions regarding justice and victim protections was collected during these sessions to gain a wide perspective of the issue of gun violence in IPV (Lynch & Logan, 2015).

Once the key professional interview was developed, it was further piloted in June 2015 using 10 urban key professionals (both justice system and victim service) from a county different of the urban county used in the present study. The purpose of this second round of piloting was to address any issues related to wording or clarity of questions, order of questions, appropriate probing questions, and strategies to maintain the attention of participants. Based on the results of the final piloting, the key professional interview has been developed in its current form for the present study (see Appendix A).

Interview content. The key professional interview was divided into five primary subsection that included questions reflecting the content of the conceptual framework. However, the ordering of questions and sections was developed to maximize the flow of the interview rather than the organization of the conceptual framework seen in Figure 1. The sections of the interview consisted of: (1) the perceived risk of intimate partner-related gun violence; (2) the benefits and barriers associated with implementing mandated gun confiscation as part of a protective order; (3) community norms and beliefs about gun control; (4) the community's readiness to enforce mandated gun confiscation as part of a protective order; and (5) the likelihood of the occurrence of mandated gun confiscation as part of a protective order.

Each section of the interview consisted of both quantitative (i.e., a rating scale or % estimation) and qualitative (i.e., open-ended, listing) questions. The interview also contained (a) a general opening question to ease the participant into the interview and get them talking, and (b) a closing question to make sure participants can add final general thoughts about improving their community's ability to implement gun confiscation. The key professional interview can be seen in Appendix A. Because some interview questions were added as introductory or closing questions and filler questions about intimate partner violence or homicide in general, only questions directly related to the conceptual framework were included in the analyses and described below.

Key professional information. A variety of information about the key informants was assessed. This included information about the community that the participant served, job responsibilities, length of time working at current agency, and recruitment efforts

(e.g., type of contact, how many times contacted). At the end of the interview, additional demographic information was collected (i.e., age, gender, race, and place of origin).

Current gun confiscation procedures in community. In order to capture any procedures that were currently occurring in communities that make some gun removal efforts, participants indicated (*yes, no, or don't know*) their knowledge of the following actions being taken during a DVO hearing: a judge asks the respondent if he or she has a gun, a judge asks the petitioner if the respondent has a gun, the judge tells the respondent that he or she is not allowed to have a gun, the judge orders the respondent to turn in his or her guns, and law enforcement follows-up or makes efforts to ensure the guns have been removed.

(1) Risk-Benefit tradeoff. Questions related to the risk-benefit tradeoff of implementing gun confiscation assessed participants' perceived seriousness of intimate partner gun violence/homicide, perceived vulnerability of IPV victims to experience gun violence/homicide, and the benefits to implementing gun confiscation.

Perceived risk of intimate partner gun violence/homicide (1a). Participants rated how at risk (1 = *not at all at risk*, 2 = *somewhat at risk*, 3 = *quite at risk*, 4 = *extremely at risk*) IPV victims are in the community to be killed or injured by a gun. Participants also estimated, in their community, how many hypothetical IPV victims out of 10 would be threatened with a gun and how many hypothetical IPV victims out of 10 would be killed or injured as with a gun. With regard to assessing the seriousness of intimate partner gun violence, participants indicated how big of a problem (1 = *not at all a problem*, 2 = *somewhat a problem*, 3 = *quite a big problem*, 4 = *extremely big problem*) in their community is both intimate partner gun violence and intimate partner homicide.

Benefits to gun confiscation (1b). In an open-ended format, participants were asked to list at least three community benefits of mandated gun confiscation as part of a protective order. Additionally, participants indicated how effective (1 = *very ineffective*, 2 = *ineffective*, 3 = *effective*, 4 = *very effective*) at reducing intimate partner homicide they believed the gun confiscation policy to be. Participants also provided a rationale for why they rated the policy to be ineffective or effective in an open-ended format.

(2) *Community ability to implement gun confiscation.* The second major component of the framework (community ability) consisted of three sub-components: (a) Barriers to implementing gun confiscation, (b) Community norms about guns, and (c) Community readiness to implement gun confiscation.

Barriers to gun confiscation (2a). Participants were asked in an open-ended format to list any negative consequences to implementing gun confiscation in the community. Additionally, participants indicated how much of a barrier (1 = *not at all a barrier*, 2 = *somewhat a barrier*, 3 = *very much a barrier*) 10 listed challenges are in the community to enforcing gun confiscation. Participants were also given the opportunity to provide any additional barriers enforcing gun confiscation.

Community norms about guns and gun control (2b). Community normative beliefs were assessed by asking participants to estimate the percentage of individuals in their community who: hunt, own a firearm, favor second amendment rights over gun control rights, believe that Kentucky should enforce or mirror federal gun laws, and would agree that abusers' access to firearms should be restricted. Additionally, participants rated how much they agree (1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly agree*) that the majority of individuals in their community would approve of

mandated gun confiscation as part of a protective order. Participants also explained, in an open-ended format, why the majority of individuals in the community would approve or disapprove of mandatory gun confiscation as part of a protective order.

Community readiness to implement gun confiscation (2c). Participants indicated the importance (1 = *not at all important*, 2 = *somewhat important*, 3 = *quite important*, 4 = *extremely important*) of the prevention and prosecution of both: intimate partner-related gun violence and IPV in general in the community. Participants also rated how much they agree (1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly disagree*) that their community is able to enforce mandated gun confiscation as part of a protective order, and explained, in an open-ended format, why or why not the community would be able to enforce this policy.

(3) *Likelihood of consistently implementing gun confiscation.* Likelihood to consistently engage in gun confiscation in the next year was assessed using a four-point scale (1 = *not at all likely*, 2 = *somewhat likely*, 3 = *quite likely*, 4 = *extremely likely*) that asked participants to rate how likely in the next 12 months is it that: abusers will be consistently ordered by a judge to turn in their guns as part of an (a) EPO and (b) DVO; and consistent arrangements will be made by the courts or law enforcement for abusers to turn in their guns within 24 hours of an (a) EPO being issued and (b) DVO hearing.

3.4 Procedure

Prior to interviewing participants, the key professional interview was pilot tested in June 2015 with 10 key professionals from one urban community and one rural community that were not participants in the present study. Both justice system and victim service professionals were interviewed during the pilot testing. This pilot testing allowed

for changes to correct any awkward wording of questions, clarify any questions that were ambiguous or hard to understand, improve the flow of the questions through question ordering, eliminate redundant questions, add new questions that provided information that otherwise would have been missing, and to incorporate strategies that would help maintain the attention of potential participants.

The procedure was similar to previous research that used key informant methodology (e.g., Cole & Anderson, 2011; Leukefeld et al., 2007; Logan, 2007; Logan et al., 2009) and in the 2014 pilot test of a similar key informant interview (Lynch & Logan, unpublished data). After the pilot phase, key community agencies were targeted in both the urban and rural communities to ensure essential agencies were sampled. These agencies consisted of: local law enforcement (both metro and county police), family court judges, commonwealth and county prosecutor offices, domestic violence shelters, legal aid offices, rape crisis centers, and probation and parole. Participants who initially participated in the study were asked to provide the names of other individuals inside or outside their agency who have appropriate knowledge of intimate partner/domestic violence victimization and perpetration or gun violence. This process repeated itself until no further names and/or agencies were suggested (i.e., community saturation).

Once a potential participant was suggested, the principle investigator attempted to contact the participant via email or phone call and asked if they would be interested in participating in the study. If the participant met the inclusion criteria (i.e., currently or formerly worked in the target counties; could be classified as a victim service or justice system professional) then they were asked to complete the interview. If they did not meet

the inclusion criteria, they were still asked if they recommended any other key professional to participate in the study.

A total of 133 key professional interviews were conducted between June 2015 and January 2016 with urban and rural professionals with knowledge about intimate partner violence and/or legal procedures related intimate partner violence. The principle investigator conducted each key informant interview and each interview took about 30 minutes to complete. Prior to the interview, participants were given a verbal description of the study and necessary elements of consent, such as confidentiality (see Appendix B). The key informant interview began after participants were given the opportunity to ask the principle investigator questions. At the end of each interview, participants were asked to name other individuals who they believed are key personnel in the community related to the issue of protections for IPV. Participants were thanked and given the principle investigator's contact information before concluding the conversation. The principle investigator's institutional review board approved all research procedures and materials for the present study.

Chapter 4: Results

4.1 Results Overview

Key professional characteristics and the current gun confiscation procedures in the sampled communities are first presented, followed by the results for each of the conceptual framework component measures: (1a-b) Risk-benefit tradeoff measures (Research Questions #1 and #2); (2a-c) Community ability measures (Research Questions #1 and #2); and (3a-b) Likelihood of consistently implementing gun confiscation in the future (Research Questions #1 and #2). Within the three sections that provide the results of the conceptual framework measures, the urban versus rural differences for these measures are first presented and are then immediately followed by the results of any significant community type x agency type interactions. Results of both the close-ended response questions and for the open-ended response questions are included within each of the conceptual framework results sections. Because the open-ended responses were coded and eventually quantified, it is noted throughout the results when a question was open-ended. Last, the regression results are presented for the relationship between risk-benefit tradeoff measures, community ability measures, and the likelihood of consistently implementing gun confiscation in the future (Research Question #3).

4.1.1 Quantitative analyses. ANOVAs were conducted to detect differences as a function of community type, agency type, and community x agency interactions for continuous, rating outcome measures (i.e., Research Questions #1 and #2). Chi-square analyses were conducted to detect significant differences in proportions of categorical responses, while logistic regressions and z-tests were used to analyze the community x agency interactions for these categorical outcome measures. Hierarchical linear

regressions were used to test the relationship between the components of the conceptual framework and the likelihood of implementing gun confiscation in the future (i.e., Research Question #3).

4.1.2 Qualitative analyses. The principle investigator coded the open-ended responses using the program NVivo11. NVivo has several advantages for coding qualitative data, including options to organize all responses coded under a single theme to double check for coding mistakes and reliability. The responses were content coded for themes specific to each open-ended question (e.g., different themes for policy effectiveness rationale versus policy benefits) and were recorded as either containing the theme (i.e., “1”) or not (i.e., “0”). Participants’ responses could contain more than one theme, however all themes within a single open-ended question were mutually exclusive. Therefore, the qualitative data analyses compared the *proportion* of participants in a given group (i.e., urban versus rural; victim services versus justice system) who mentioned a theme—not the total number of a times a theme was mentioned. The data were exported from NVivo into SPSS, where chi-square analyses and logistic regressions were conducted to detect significant differences in proportions of urban versus rural professionals and community type x agency type interactions who mentioned each theme in their response (i.e., Research Questions #1 and #2).

4.2 Key Professional Characteristics

A summary of participant demographic characteristics are shown in Table 4. Of the 133 key professional participants: 48.1% were recruited from the urban community and 51.9% were recruited from the rural communities; 40.6% were justice system professionals and 59.4% were victim service professionals. With regard to gender, 72.2%

of participants were female and 27.8% were male. The vast majority (94.7%) of participants were White, 2.3% of participants were Black, and 3.0% of participants were classified as another race, multi-racial, or chose not to answer. The average age of participants was 43.1 years old ($SD = 10.6$), with ages ranging from 22 to 70 years old.

4.2.1 Demographic characteristics by community type. Participants in the urban community versus the rural communities did not differ in the proportion of victim service and justice system professionals ($\chi^2 [1] = .78, p = .376$), proportion of male and female participants ($\chi^2 [1] = .21, p = .623$), race ($\chi^2 [4] = 6.68, p = .154$), average age ($t[125] = .14, p = .889$), or the average length of time working at their current agency ($t[128] = -.73, p = .465$). However, significantly more urban professionals were from urban Kentucky or a state other than Kentucky and significantly more rural professionals were from Eastern Kentucky ($\chi^2 [3] = .90.24, p < .001$),

4.2.2 Demographic characteristics by agency type. Victim service and justice system professionals did not differ as a function of race ($\chi^2 [4] = 2.06, p = .725$), average age ($t[125] = .24, p = .809$), or area of origin ($\chi^2 [3] = 5.63, p = .131$). Significantly more victim service professionals were female (87.5% female versus 12.5% male), $\chi^2 (4) = 23.46, p < .001$). Additionally, justice system professionals ($M = 11.97; SD = 6.10$), on average, worked at their current agency significantly longer than victim service professionals ($M = 9.22; SD = 7.22$), $t(128) = 2.26, p = .026$).

Table 4: *Key professional participant characteristics (N = 133)*

	n (%)
<u>Community Type</u>	
Urban	64 (48.1%)
Rural	69 (51.9%)
<u>Agency Type</u>	
Justice System	54 (40.6%)
Victim Services	79 (59.4%)
<u>Gender</u>	
Female	96 (72.2%)
Male	37 (27.8%)
<u>Race</u>	
White	126 (94.7%)
Black	3 (2.3%)
Other	3 (2.2%)
Missing Data	1 (.8%)
<u>Originally From</u>	
Urban Kentucky	23 (17.3%)
Eastern Kentucky	61 (45.9%)
Other Kentucky	15 (11.3%)
Not Kentucky	30 (22.6%)
Missing Data	4 (3.0%)
<u>Frequency of Attending PO Hearings</u>	
Never	31 (23.3%)
Have previous, but not past 12 months	33 (24.8%)
A couple times a year but less than once a month	23 (17.3%)
Once a month	13 (9.8%)
Once a week	32 (24.1%)
Missing Data	1 (.8%)
<u>Age</u>	
Mean (SD)	43.1 (10.6)
Range	22 to 70

Note. PO = protective order; SD = standard deviation

4.3 Current Confiscation Procedures in the Sampled Communities

A comparison, by community type, of participants' knowledge of current gun confiscation procedures in their communities is shown in Table 5. Given the range of job requirements and amount of time, if any, spent in protective order hearings, participants were given the option to respond if they were “*not sure*” if the procedure regularly occurs, in addition to yes/no options. Also, a “*sometimes*” category was included because some participants explained that the procedure “*sometimes*” occurred but not all the time, depending on the circumstance.

Table 5: *Knowledge of current gun confiscation procedures as reported by community type*

	No	Yes	Sometimes	Don't know	χ^2	<i>p</i>
Judge asks respondent if he/she has a gun						
Urban	10.94% ^a	71.88% ^a	1.56%	15.63%	11.90	.008
Rural	27.94% ^b	42.65% ^b	2.94%	26.47%		
Judge asks petitioner if respondent has a gun						
Urban	15.63% ^a	62.50% ^a	9.38%	12.50%	10.21	.017
Rural	30.88% ^b	42.65% ^b	2.94%	23.53%		
Judge tells respondent he/she not allowed to have a gun						
Urban	6.25%	82.81%	1.56%	9.38%	2.24	.524
Rural	9.38%	72.06%	2.94%	16.18%		
Judge orders respondent to turn in guns						
Urban	10.94% ^a	75.00% ^a	1.56%	12.50% ^a	22.72	<.001
Rural	33.82% ^b	33.82% ^b	4.41%	27.94% ^b		
Follow up or arrangements made for guns to be surrendered						
Urban	6.25% ^a	51.56% ^a	0.00%	42.19%	27.39	<.001
Rural	36.76% ^b	16.18% ^b	1.47%	45.59%		

Note. Percentages represent the proportion of participants who indicated each response type; ^a and ^b indicate significant differences between proportions of urban and Appalachian responses;

A significantly larger proportion of urban professionals reported that four of the five gun confiscation procedures regularly occur in their community and significantly larger proportions of rural professionals reported that the same four procedures *do not* regularly occur in their community. However, similar, high proportions of urban and rural professionals reported that a judge will regularly tell a respondent that he or she is not allowed to have a gun during the protective order hearing. This procedure is a common occurrence because it is part of the judge's instruction to a respondent to tell him or her that under federal law he or she is prohibited from possessing a firearm. The only gun confiscation procedure that nearly one half of both urban and rural professionals were not aware of its occurrence was follow-up by law enforcement to ensure the respondent has surrendered his or her weapons. Participants reported, for example, that they were not aware of what occurs with regard to firearms or monitoring beyond the DVO hearing.

4.3.1 Participants frequently in protective order hearings. In order to gain a more accurate assessment of current gun confiscation procedures in the sampled communities, only the responses of participants who reported that they were in protective order hearings at least once a week were subsequently analyzed. This group of participants consisted of 32 professionals (59.4% victim services, 40.6% justice system). Thirteen of these participants (40.6%) worked in the urban community and 19 participants worked in the rural communities (59.4%). The proportion of participants who reported that each of the gun confiscation procedures regularly occurred (i.e., responded "yes") were compared between the urban and rural areas (see Table 6). There were no

significant differences in reported procedure occurrence between victim service and justice system professionals.

It was more common for urban versus rural professionals to report that each of the gun confiscation procedures regularly occurred in their community. The majority (84.62%) of urban professionals reported that a judge will consistently ask a respondent if he or she has a gun during a DVO hearing in their community, compared to only 36.84% of rural professionals. Further, 100% of the urban professionals who were in protective order hearings each week reported that a judge orders the respondent to turn in his or her guns compared to only 36.84% of the rural professionals. However, similar, high proportions of urban and rural professionals reported that the judge will consistently tell the respondent that he or she is not allowed to have a gun during the protective order.

Table 6: *Knowledge of current gun confiscation procedures for participants in protective order hearings each week (n = 32)*

	Urban (n = 13)	Rural (n = 19)	χ^2	p
Judge asks respondent if he/she has a gun	84.62%	36.84%	7.16	.007
Judge asks petitioner if respondent has a gun	61.54%	36.84%	1.89	.169
Judge tells respondent he/she not allowed to have a gun	92.31%	89.47%	.073	.787
Judge orders respondent to turn in guns	100.00%	36.84%	13.14	<.001
Follow up or arrangements made for guns to be surrendered	76.92%	15.79%	11.96	.001

Note. Percentages represent the proportion of participants who responded “yes” to the occurrence of the gun confiscation procedure

The procedure that yielded the smallest proportion of regular reported occurrence in the urban community was a judge asking the petitioner if the respondent owned a gun—though this procedure was reported as regularly occurring by nearly two thirds of

urban professionals. When qualifying their response, participants often commented that it depended on the details of the case (e.g., the type of violence reported in the petition) or judge as to whether this procedure occurred, but that it was not always consistently carried out. The lowest reported regular occurrence for the rural communities was follow-up after the DVO hearing to ensure the guns have been surrendered and/or confiscated. Only 15.79% of rural professionals reported that this regularly occurred in their communities compared to 76.92% of urban professionals.

4.4 Risk-Benefit Tradeoff Results

4.4.1 Perceived risk of intimate partner gun violence and homicide (1a)

Perceived seriousness of intimate partner gun violence (1a-i). Participants' average ratings of perceived seriousness and vulnerability of intimate partner gun violence/homicide are shown in Table 7. Participants in the urban community rated both intimate partner gun violence ($p < .001$, $\eta^2 = .096$) and intimate partner homicide, ($p = .032$, $\eta^2 = .036$) as significantly bigger problems in their community compared to participants from the rural communities

Perceived seriousness: Community type x agency type interactions. There were no community type x agency type interactions for the perceived seriousness measures.

Perceived vulnerability of IPV victims (1a-ii). There were no significant differences in the urban and rural participants' ratings of how at risk IPV victims are to be killed by an abuser with a gun in their communities ($p = .557$, $\eta^2 = .003$). There were also no significant differences in estimates out of 10 for how many IPV victims in their community would be threatened with a gun ($p = .984$, $\eta^2 = .000$) or killed/injured by a gun ($p = .872$, $\eta^2 = .000$).

Table 7: Average perceived risk of intimate partner gun violence variables

	Urban M (SD)	Rural M (SD)	<i>F</i>	<i>p</i>
<u>Perceived Seriousness of IPV Gun Violence</u>				
How big of a problem is intimate partner-related gun violence in community ¹	2.55 (.84)	2.15 (.68)	13.66	<.001
How big of a problem is intimate partner homicide in community ¹	2.23 (.80)	1.96 (.75)	4.71	.032
<u>Perceived Vulnerability of IPV Victims</u>				
How at risk to be killed or injured by a gun are IPV victims in community	2.73 (.87)	2.71 (.84)	.35	.557
How many IPV victims out of 10 in community would be threatened with a gun?	5.05 (2.30)	5.11 (2.36)	.00	.984
How many IPV victims out of 10 in community would be killed or injured as a result of a gun?	2.30 (1.95)	2.37 (2.07)	.03	.872

¹Measured on a four point rating scale (1 = *not at all*, 2 = *somewhat*, 3 = *quite*, 4 = *extremely*)
Note. SD = standard deviation

Perceived vulnerability: Community type x agency type interactions. There were no community type x agency type interactions for the perceived vulnerability measures.

4.4.2 Benefits to gun confiscation (1b)

Community benefits (1b-i). The proportion of participants who indicated each community benefits theme in their open-ended responses are shown in Table 8. The two most commonly mentioned benefits by both urban and rural professionals was that the policy reduces the availability of guns to potentially dangerous individuals and that the policy protects victims. With regard to the former (i.e., reducing the availability of guns), participants not only often mentioned that the policy gets guns out of abusers' hands in general, but also that the policy "*makes abusers go through additional measures to get new guns.*" Additionally, similar proportions of both urban and rural professionals mentioned that the policy reduces the likelihood of fatalities in the community, and that the policy increases the safety of individuals other than the victim. Participants listed the

victim’s family and friends, bystanders of violence, community members in general, and law enforcement as other individuals who would be protected by this policy.

A significantly higher proportion of urban versus rural professionals mentioned that the policy sends a message to victims, abusers, and the community in general that IPV/intimate partner-related gun violence is taken seriously as an issue. Participants highlighted that this message can potentially have a positive impact on the community, as participants made comments such as, the policy “*tells survivors that courts will take actions to help victims and survivors may be more likely to come back to the courts*” and “*brings community awareness to the threat of guns in domestic violence situations.*” Finally, similar proportions of urban and rural participants mentioned other benefits such that the policy makes the victim feel safer (“*gives victim peace of mind*”), holds the perpetrator accountable for his actions (“*help abusers realize severity of what they’ve done*”), and provides a cool down period for the perpetrator (“*re-think situation.*”)

Table 8: *Proportion of participants who mentioned benefits to gun confiscation themes (open-ended response)*

	Urban (n = 64)	Rural (n = 69)	χ^2	<i>p</i>
Reduce the availability of guns	42.19%	31.88%	1.52	.218
Protects victims	35.94%	37.68%	.04	.835
Reduces risk of fatalities	29.69%	30.43%	.01	.925
Increases safety of those other than victims	31.25%	24.64%	.72	.395
Sends message that IPV/gun violence taken seriously	28.13%	13.04%	4.67	.031
Victim feels safer	15.63%	18.84%	.24	.624
Holds perpetrator accountable for actions	21.88%	13.04%	1.81	.178
Provides cool down period for perpetrator	9.38%	15.94%	1.42	.491

Note. Percentages reflect the proportion of each participant type whose response contained the listed theme; participants’ responses could reflect multiple themes but each theme is mutually exclusive.

Community benefits: Community type x agency type interactions. There were no significant community type x agency type interactions for the community benefits responses.

Perceived effectiveness of gun confiscation policy (1b-ii). With regard to differences in perceptions of the effectiveness of the gun confiscation policy, participants in the urban community rated the policy as significantly more effective than participants in rural communities, $F(4,124) = 5.25, p = .024, \eta^2 = .039$. When breaking down effectiveness into four categories (i.e., very ineffective, ineffective, effective, very effective), a significantly higher proportion of participants from rural communities (31.9%) than participants from the urban community (9.5%) rated the policy as very ineffective, $\chi^2(3) = 10.51, p = .015$.

Reasons for effectiveness. Common themes coded from participants' open-ended responses to why they believe the gun confiscation policy is effective or ineffective are shown in Table 9. With regard to why the policy is effective, the most common rationales were that the policy removes immediate access to a weapon in the heat of the moment that the policy keeps weapons out of abusers' hands. For example, participants made comments such as, "*if a weapon is in the presence of the perpetrator then the perpetrator can fly off the handle and hurt someone, [therefore the] policy takes away immediate access to a dangerous situation*" (i.e., immediate access to weapon) and "*[the policy] decreases the number of weapons available to abusers*" (i.e., keeps weapons out of abusers' hands).

Reasons for ineffectiveness. Though there were no significant differences in the proportion of urban versus rural professionals who mentioned each rationale for why the

policy is effective, there were significant differences by community type for rationales of why the policy is ineffective. The two most common reasons for why the gun confiscation policy is ineffective was that it is too easy for abusers to access new guns, which did not differ in response frequency by community type, and that abusers will still find a way to harm the victim, which was mentioned by a significantly higher proportion of urban versus rural participants. With regard to the latter theme, participants made comments such as, “*violence isn’t access based so if a perpetrator wants to kill someone he’ll find a gun or another way to do it...taking away access to guns doesn’t necessarily decrease the risk*” and “*it doesn’t take a gun to kill victims. Perpetrators will use other weapons to kill.*”

Table 9: *Proportion of participants who mentioned reason for effectiveness themes (open-ended response)*

	Urban (n = 64)	Rural (n = 69)	χ^2	<i>p</i>
<u>Reasons for Effectiveness</u>				
Removes immediate access to weapon in the moment	21.88%	11.59%	2.54	.111
Keeps weapons out of abusers’ hands	15.63%	11.60%	.46	.497
Sends message about the seriousness of IPV/gun violence	6.25%	2.90%	.87	.352
Agencies in community are able to effectively respond	3.13%	2.90%	.01	.939
<u>Reasons for Ineffectiveness</u>				
Too easy to access new guns	42.19%	34.78%	.77	.380
Abusers will still find way to harm victim	35.94%	13.04%	9.53	.002
Abusers are not compliant with the order	21.88%	11.59%	2.54	.11
Limitations with state laws and issues of jurisdiction	10.94%	10.14%	.02	.882
No follow through or monitoring after order	4.67%	14.49%	3.62	.057
Hunting, guns, and land	0.00%	15.94%	11.12	.001
Policy is impossible to enforce	7.81%	0.00%	5.60	.018

Note. Percentages reflect the proportion of each participant type whose response contained the listed theme; participants’ responses could reflect multiple themes but each theme is mutually exclusive

Nearly 16% of rural professionals compared to zero urban professionals mentioned community contextual factors related to hunting, guns, or land in their rationale for why the gun confiscation policy is ineffective. Examples of participant responses include, “*the county is very large and everything is spread out. There’s a lot of land for law enforcement to cover*” and “*it’s a small community in Eastern Kentucky where guns are valued and collected.*” Also yielding significant differences in frequency of responses, 7.81% of urban professionals compared to zero rural professionals made general comments that there are no specific reasons why the policy is ineffective but rather that the policy is simply impossible or too hard to enforce given all of the “*loopholes*” in the system. Other common ineffectiveness rationales that were mentioned at similar percentages among community type included: abusers are not compliant with the gun confiscation order (“*order doesn’t necessarily make abusers turn their guns in*”), limitations of state laws and jurisdiction (“*need a gun registration policy for this gun confiscation policy to be effective*”), and that there is no follow through or monitoring after abusers are told to give up their guns (“*there’s no monitoring to make sure the guns are turned in and homes are not checked.*”)

Perceived effectiveness: Community type x agency type interactions. A logistic regression analysis revealed a significant community type x agency type interaction for the proportion of participants who reported that the easy access to guns as a theme for the gun confiscation policy ineffectiveness (OR = 10.77, $p = .003$). Specifically, in the urban community, a significantly higher proportion of urban justice system professionals than urban victim service professionals mentioned easy access to guns as an ineffectiveness theme ($z = -2.42, p = .016$), while there were no significant differences between victim

service and justice system professionals in the rural area ($z = -1.94, p = .052$). This interaction is depicted in Figure 4.

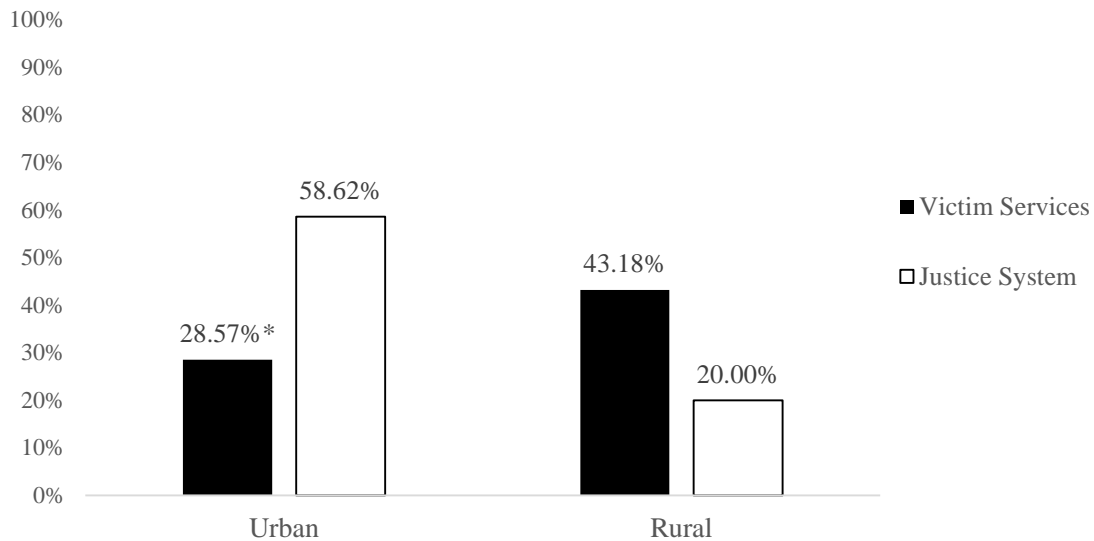


Figure 4. Community type x agency type for the proportion of participants who reported “easy access to guns” as an ineffectiveness theme. $*p < .05$

4.5 Community Ability to Implement Gun Confiscation Results

4.5.1 Barriers to gun confiscation (2a)

Community barriers (2a-i). The proportion of participants from the urban versus rural communities who indicated that each challenge was a barrier to enforcing mandated gun confiscation as part of a protective order are shown in Table 10. When looking at the average number of perceived community barriers to mandated gun confiscation as part of a protective order, participants from rural communities reported significantly more barriers of the 10 listed challenges than participants from the urban community ($p < .001, \eta^2 = .110$).

Table 10: *Proportion of who agreed that each challenge is a barrier in community to enforcing gun confiscation policy (close-ended response)*

	Urban (n = 64)	Rural (n = 69)	χ^2	<i>p</i>
Limited law enforcement resources to enforce the policy	62.50%	86.76%	10.35	.001
Limited victim advocacy resources to push for abusers' guns to be removed	57.81%	75.00%	4.38	.036
Limited space to store the guns that are removed	32.87%	51.47%	4.59	.032
Victims do not want their abusers' guns taken away	53.23%	54.41%	.02	.892
Additional work for justice system professionals	59.38%	79.41%	6.27	.012
Intimate partner-related gun violence isn't a big enough problem in the community	44.44%	61.76%	3.94	.047
People in the community won't agree with that policy	65.08%	82.35%	5.08	.024
General community belief that the policy is a violation of right to bear arms	68.75%	85.29%	5.14	.023
Easy to get guns illegally (e.g., street/family)	98.44%	97.06%	.28	.595
Hard to know if abusers lie about gun ownership in court	96.88%	95.58%	.15	.699
Average number of barriers (SD)	6.47 (1.98)	7.65 (1.79)	<i>F</i> = 15.31	<.001

Note. Percentages reflect the proportion of participants who reported that the challenge was a barrier in the community (either by indicating somewhat or very much a barrier); SD = standard deviation

Specifically, significantly higher proportions of participants in rural communities than participants in the urban community reported the following challenges as barriers: limited law enforcement resources, limited victim advocacy resources, limited space to store the guns, additional work for justice system professionals, intimate partner gun violence is not a big enough issue in the community, people in the community won't agree with the policy, and a general community belief that the policy is a violation of the right to bear arms. Key professionals did not differ in their assertion that victims do not want their abusers' guns taken away as a community barrier. Additionally, nearly 100% of both urban and rural participants reported that it is easy for abusers to get new guns

illegally and that it's hard to tell is abusers lie about gun ownership in court as community barriers to enforcing the gun confiscation policy.

Community barriers: Community x agency type interactions. The interaction between community and agency type was significant for the average number of reported community barriers to implementing gun confiscation, $F(4,120) = 5.91, p = .017, \eta^2 = .045$. Upon probing of this interaction (Figure 5), justice system professionals reported significantly fewer barriers than victim service professionals in the urban community ($t[58] = 4.27, p < .001$). However, there were no significant differences in the number of barriers reported by victim service and justice system professionals in the rural community ($t[66] = .79, p = .432$).

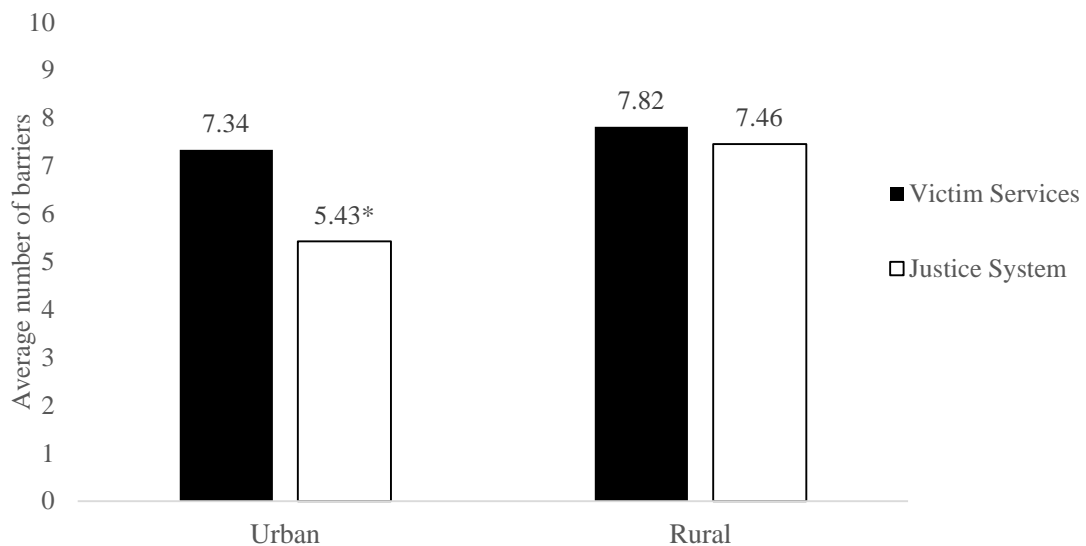


Figure 5. Community type x agency type interaction for average number of reported community barriers. * $p < .05$

With regard to the frequency of reporting specific barriers in the community, logistic regression analyses revealed two significant community type x agency type interactions. With regard to the first interaction (OR = .12, $p = .032$) and as seen in Figure 6, a significantly lower percentage of justice system professionals in the urban community reported limited law enforcement as a community barrier to implementing gun confiscation in comparison to victim service professionals in the urban area ($z = -2.66, p = .008$) and both rural justice system professionals ($z = -3.58, p < .001$) and rural victim service professionals ($z = -3.53, p < .001$). Proportions of rural participants who reported this barrier did not differ by agency type in the rural area ($z = .88, p = .379$).

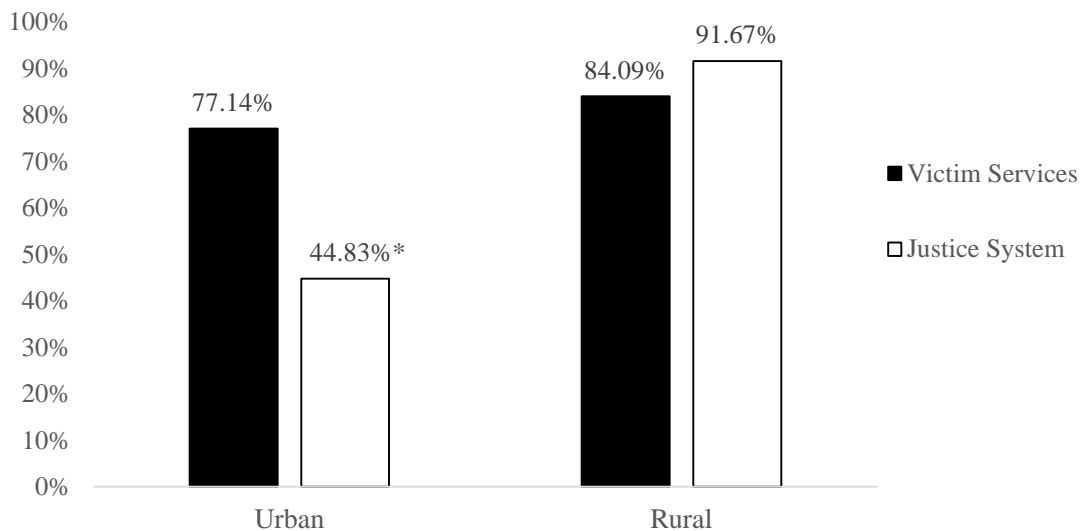


Figure 6. Community type x agency type interaction for proportion of participants who reported limited law enforcement resources as a community barrier. * $p < .05$

As for the second interaction (OR = .19, $p = .032$) depicted in Figure 7, a significantly lower proportion of urban justice system professionals reported that intimate partner gun violence is not a big enough issue in their community as a community barrier

to implementing gun confiscation in comparison to urban victim service professionals ($z = -3.70, p < .001$), and both rural justice system professionals ($z = -2.89, p < .004$) and rural victim service professionals ($z = -2.16, p = .031$). Proportions of rural victim service and justice system professionals who reported this barrier did not significantly differ ($z = 1.13, p = .254$).

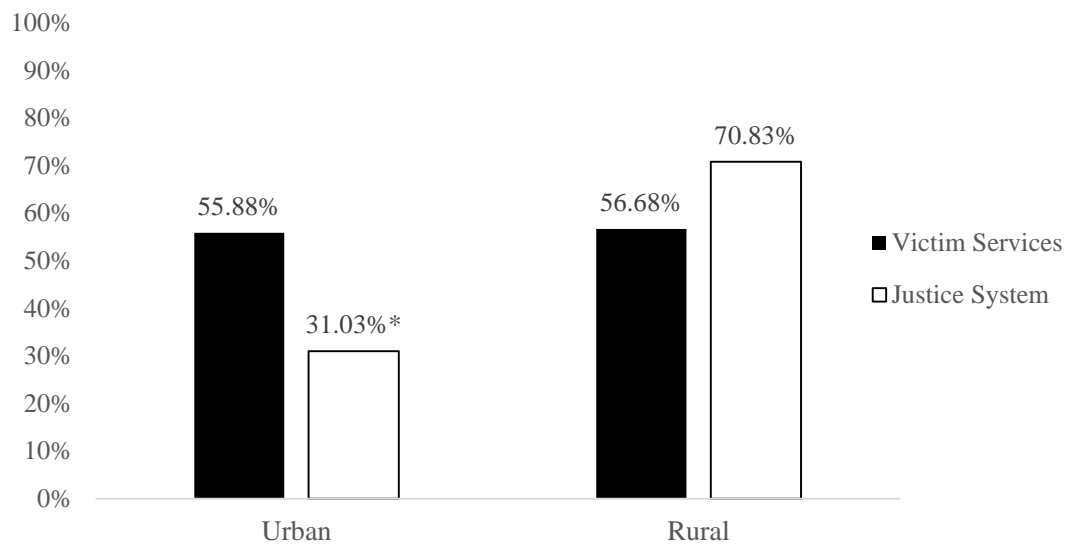


Figure 7. Community type x agency type interaction for proportion of participants who reported that intimate partner gun violence is not a big enough problem in the community as a community barrier. * $p < .05$

Negative consequences of policy (2a-ii). Themes extending from urban versus rural participants’ open-ended responses when asked to list any negative consequences of the gun confiscation policy are shown in Table 11. The most commonly mentioned negative consequence for similar amounts of urban and rural professionals was that gun confiscation may anger an abuser and actually increase the danger for anyone involved (i.e., victims, abusers, bystanders, law enforcement). For example, one participant said,

“[the] perpetrator may react hostilely to guns being taken so it escalates the violence by antagonizing the perpetrator.” Another participant pointed out that particularly in the case of rural communities, the policy “might not be good if perpetrators use guns for hunting and hunting is what keeps them away from victims” because it “takes away the outlet for the perpetrators.”

Table 11: *Proportion of participants who mentioned negative consequences themes (open-ended response)*

	Urban (n = 64)	Rural (n = 69)	χ^2	p
Angers perpetrator and increases danger	23.44%	17.39%	.75	.386
Perpetrator loses right to guns/protection	9.38%	30.43%	8.34	.015
Community backlash	12.50%	5.80%	1.82	.178
Creates false sense of security for victim	14.06%	2.90%	5.46	.020
Threatens abuser’s livelihood if job depends on gun	7.81%	4.35%	.71	.401
Deter victims from seeking protective order	7.81%	1.45%	3.12	.077

Note. Percentages reflect the proportion of each participant type whose response contained the listed theme; participants’ responses could reflect multiple themes but each theme is mutually exclusive

The second most commonly mentioned negative consequence yielded significant differences in the frequency of responses by community type, as a significantly higher proportion of rural participants than urban participants pointed out that the policy takes away the protective order respondent (i.e., abuser’s) right to a weapon/protect his or herself. Participants made comments such as, the policy would be “*depriving constitutional right to bear arms before respondents is convicted of a crime*” and “*guns are a big part of life in Eastern Kentucky so [the] policy would be taking that away.*” Also within this theme, professionals in rural communities commonly mentioned that false protective orders are often filed for reasons other than domestic violence and that

the policy would take away “innocent” respondents’ guns: “*men who are not a threat to women may lose their guns when women seek protective orders for custody reasons rather than violence.*” No professionals from urban communities mentioned this issue.

Another significant difference in urban and rural participants’ responses to negative consequences of gun confiscation included mentioning that the policy may create a false sense of security for the victim; 14.06% of urban professionals compared to only 2.90% of rural professionals mentioned this theme. An example of a response containing this theme is, “*victims might be naïve and are given false sense of safety and won’t maintain safety plan*”. Other negative consequences that were not mentioned at significantly different frequencies between urban and rural communities included: community backlash to the policy (“*community as a whole vilifies victims who seek protective orders because guns are taken away*”), the policy threatens an abuser’s, and potentially the victim’s, livelihood if dependent on owning a gun (“*respondent loses job and income that supports the petitioner*”), and that the policy may deter victims from seeking a protective order (“*victims feel guilty to take away guns from abusers who hunt.*”)

Negative consequences: Community type x agency type interactions. There were no significant community type x agency type interactions for the negative consequences of gun violence measures.

4.5.2 Community norms about gun culture and gun control (2b)

Normative beliefs/behaviors about guns (2b-i). The estimated proportions of participants’ community members who engage in various gun-related behaviors and beliefs as a function of urban versus rural estimated reports are shown in Table 12.

Table 12: *Estimates of normative beliefs/behaviors about guns in community*

	Urban M % (SD %)	Rural M % (SD %)	<i>F</i>	<i>p</i>
% of community that hunts	34.91% (22.84%) Range: 5%-87% Mode: 10%	67.35% (18.13%) Range: 20%-95% Mode: 60%	90.77	<.001
% of community that owns a gun	55.19% (20.68%) Range: 10%-90% Mode: 50%	81.04% (11.79%) Range: 40%-100% Mode: 90%	76.43	<.001
% of community that favors right to bear arms over gun control	57.81% (15.66%) Range: 15%-90% Mode: 50%	81.24% (14.19%) Range: 40%-99% Mode: 90%	79.33	<.001
% of community agrees that KY should enforce federal gun laws	50.43% (20.56%) Range: 10%-90% Mode: 50%	39.49% (20.99%) Range: 0%-95% Mode: 50%	9.00	.003
% of community agrees that abusers' access to guns should be restricted	66.81% (20.08%) Range: 20%-100% Mode: 75%	62.79% (20.92%) Range: 10%-100% Mode: 50%	1.19	.278

Note. Responses indicated estimated percentages (from 0 to 100%) of people in participants' community; SD = standard deviation

There were stronger elements of gun culture in the rural communities, as professionals in rural communities reported significantly higher estimates of the proportion of people in the community who hunt ($p < .001$, $\eta^2 = .415$), own a gun ($p < .001$, $\eta^2 = .374$), and favor the right to bear arms over gun control rights ($p < .001$, $\eta^2 = .386$), than professionals in the urban community. Relatedly, professionals in the rural community reported significantly lower estimates of the proportion of individuals in the community who agree

that Kentucky should enforce or mirror federal gun laws than professionals from the urban community ($p = .003$, $\eta^2 = .067$). Estimates of the proportion of individuals in the community who would agree that abusers' access to firearms should be restricted was not significantly differ between community type ($p = .278$, $\eta^2 = .009$).

Normative beliefs/behaviors about guns: Community type x agency type interactions. There were no significant community type x agency type interactions for the normative beliefs/behaviors about guns measures.

Community approval of gun confiscation policies (2b-ii). With regard to participants' likelihood ratings that the majority of people in their community would agree with the mandated gun confiscation policy, participants working in the urban community ($M = 2.92$, $SD = .79$) in comparison to participants working in the rural communities ($M = 2.38$, $SD = .84$) rated that it is significantly more likely that the majority of people in their community would approve of the policy, $F(4,124) = 14.57$, $p < .001$, $\eta^2 = .102$.

Reasons for likely to agree. Coded themes regarding participants' rationales for why their community would be likely or unlikely to agree with the gun confiscation policy are shown in Table 13. For both urban and rural professionals, the top two reasons for why it is likely their community would agree with the policy were a general agreement in the community that dangerous people should not have access to a gun and that safety/protection of victims is important in the community. Examples of the former theme include, "*when it comes to everyday civilians, people in the community won't lay down their bible or their gun. But when it comes to 'wife beaters', people will want abusers' guns taken because it makes civilized gun owners look bad*" and "*would*

approve because violent people shouldn't have access to firearm.” An example of the latter theme is, “lots of people in the community are concerned about others' safety and may see disarming abusers as reducing threat to community.”

Table 13: Proportion of participants who mentioned likelihood of agreement themes (open-ended response)

	Urban (n = 64)	Rural (n = 69)	χ^2	p
<u>Reasons why Likely to Agree with Policy</u>				
Agreement that dangerous people shouldn't have gun	21.88%	18.84%	.19	.664
Safety and protection is important in community	20.31%	10.14%	2.69	.101
Community members understand issue of IPV and guns	17.19%	0.00%	12.93	<.001
Community is liberal	15.63%	0.00%	11.66	.001
Personal stories or media attention raise issue of IPV and guns	9.38%	4.35%	1.33	.249
<u>Reasons why Unlikely to Agree with Policy</u>				
People in community will not agree to give up guns	21.88%	39.13%	4.64	.031
Gun, hunting, and gender norms in community	1.56%	30.43%	20.05	<.001
Community doesn't understand or care about the issue of IPV and guns	6.25%	5.80%	.01	.913
Belief that victims lie about violence when seeking protective order	1.56%	5.80%	1.67	.200

Note. Percentages reflect the proportion of each participant type whose response contained the listed theme; participants' responses could reflect multiple themes but each theme is mutually exclusive.

When looking at significant urban and rural differences, 17.19% of urban professionals compared to zero rural professionals mentioned that the community would agree with the policy because there is a strong understanding of or education related to IPV in the community. For example, one urban participant stated that, “there's more awareness about dangers of domestic violence in the community.” Similarly, 15.63% of urban participants compared to zero rural participants mentioned that their community

would agree with the policy because the community is relatively liberal (e.g., “*the community is pretty liberal on political issues like guns.*”) Although there were no significant differences in frequency of responses, both urban and rural participants also mentioned that local personal experiences or media stories have also drawn more attention to IPV, which could result in more agreement with the policy. One participant stated, “*domestic violence is a big issue in the community and it’s in the news. Lots of people have family experiences with domestic violence and want to protect people in their family.*”

Reasons for unlikely to agree. As for reasons why the community would not agree with the policy, the most common rationale was that individuals in the community would not agree to surrender their weapons given strong beliefs in the second amendment. Though this was the most common reasoning for both urban and rural professionals, a significantly higher percentage of rural professionals than urban professionals mentioned this theme. Participants made statements such as, “*people in [the] community take gun rights very seriously. People don’t see many reasons to take everyone’s guns*” and “*people in the community will think of the policy as a slippery slope to take more constitutional rights. They’ll think if guns are taken over a fight with a wife, then what’s next?*” The second most common reason why participants did not think that their community would agree with the gun confiscation policy also yielded significant differences between community types; 30.43% of rural professionals versus only 1.56% of urban professionals mentioned that gun, hunting, and gendered culture (e.g., “good ol’ boy mentality”) would be a rationale for community disagreement with the policy. Several participants mentioned the “*good ol’ boy system*” when answering this question and that

there is a community belief that it is a man's "*God-given right to have a gun.*" For example, one participant explained,

"Culturally, guns are a big part of the community. [The] culture emphasizes men having guns in the home. It's culturally accepted in the community to threaten the victim with a gun. The mountains still operate under the good ol' boy system."

Participants also mentioned that hunting and fishing were a huge part of culture in the rural communities, so any policy that threatens to take guns away would not meet the approval of community members. In addition to hunting culture, some participants explained the value of guns in the community and why taking guns is more than taking away a weapon: "*guns are valuable and passed down from generation to generation, so people won't give them up.*"

Other reasons why participants felt their community wouldn't agree with the gun confiscation policy consisted were that the community doesn't understand or care about the issues of IPV and guns, and community beliefs that a victim is lying or has ulterior motives when seeking protective orders. An example of the latter theme is that there is a community belief that petitioners "*don't need proof of domestic violence to get a protective order so lots of people in the community think that women can go lie about the violence then the partner loses his guns.*"

Community approval of policy: Community type x agency type interactions.

There were no community type x agency type interactions for the community approval responses.

4.5.3 Community readiness to implement gun confiscation (2c)

Perceived priority of IPV and intimate partner gun violence (2c-i). Participants' average ratings of the community readiness measures are shown in Table 14. With regard

to the importance of IPV and intimate partner-related gun violence to the community, professionals working in the urban community reported that the prevention and prosecution of both IPV ($p = .006$, $\eta^2 = .058$), and intimate partner-related gun violence ($p = .001$, $\eta^2 = .088$), as significantly more important issues to the community than professionals working in the rural communities.

Perceived priority: Community type x agency type interactions. There were no significant community type x agency type interactions for the perceived priority measures.

Table 14: Average community readiness ratings

	M (SD)	F	p
<u>Perceived Priority</u>			
How important to the community is the prevention and prosecution of intimate partner gun violence? ¹			
Urban	3.39 (.71)	12.20	.001
Rural	2.97 (.88)		
How important to the community is the prevention and prosecution of IPV in general? ¹			
Urban	3.50 (.72)	7.76	.006
Rural	2.98 (.94)		
<u>Perceived ability</u>			
How much do you agree that your community is able to enforce the gun confiscation policy? ²			
Urban	2.73 (.95)	12.71	.001
Rural	2.16 (.93)		

¹Responses were measured on a four point rating scale (1 = *not at all*, 2 = *somewhat*, 3 = *quite*, 4 = *extremely*)

²Participants were given four response options (1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly agree*)

Note. SD = standard deviation

Perceived ability to implement gun confiscation (2c-ii). Participants working in the urban community had higher agreement that their community is able to enforce the

policy in comparison to participants working in the rural communities ($p = .001$, $\eta^2 = .090$). Further, when breaking down participants' agreement into four categories (i.e., strongly disagree, disagree, agree, strongly agree), significantly more professionals in the rural communities strongly disagreed (Urban: 9.38%; Rural: 26.09%), that their community is able to enforce the policy, while significantly more professionals in the urban community strongly agreed (Urban: 25.00%; Rural: 10.14%), that their community is able to enforce the policy, $\chi^2(3) = 12.34$, $p = .006$.

Reasons why community is able. Participants' coded responses to why their community is able or not able to enforce the gun confiscation policy are shown in Table 15. The most common reason for why the community is able to enforce the policy was that key community agencies are able to effectively respond to IPV and enforce the policy. Though, a significantly higher percentage of urban participants than rural participants mentioned this theme. Participants often highlighted that Judges are good at ordering respondents to surrender their weapons and that the Sheriff's office makes great efforts to confiscate respondents' weapons when serving protective orders. Participants also mentioned that these key community agencies work well together to enforce the policy. For example, "*there's a good working relationship between [metro] law enforcement, courts, and the Sheriff's office in the community.*" Other reasons related to why participants' communities are able to enforce the policy consisted of: a general community awareness and priority related to IPV and guns in the community (i.e., "*issue is taken seriously*"), and that the community has resources to enforce the policy. It should be noted that zero rural professionals noted community resources as a reason why their community is able to enforce the policy.

Table 15: *Proportion of participants who mentioned community ability themes (open-ended response)*

	Urban (n = 64)	Rural (n = 69)	χ^2	<i>p</i>
<u>Reasons why Community is Able to Enforce Policy</u>				
Key community agencies are able to effectively respond	40.63%	14.49%	11.49	.001
Awareness and priority to address IPV and gun violence in community	4.69%	1.45%	1.19	.275
Community has resources to enforce policy	4.69%	0.00%	3.31	.069
<u>Reasons why Community is Not Able to Enforce Policy</u>				
Too many issues with making sure abusers comply	40.63%	39.13%	.03	.860
Community agencies choose not to enforce	0.00%	31.88%	24.45	<.001
Limitations with state laws and issues of jurisdiction	23.44%	8.70%	5.73	.020
Gun, hunting, and gender norms in community	3.13%	21.74%	10.32	.001
Community lacks resources	3.13%	15.94%	6.19	.013

Note. Percentages reflect the proportion of each participant type whose response contained the listed theme; participants' responses could reflect multiple themes but each theme is mutually exclusive.

Reasons why community is unable. With regard to reasons for not being able to enforce the gun confiscation policy, percentages of urban and rural participants differed in their reports of almost every theme. However, about 40% of both urban and rural professionals mentioned that there are too many issues in ensuring protective order respondents comply with the order, which was the most common rationale for not being able to enforce the order. Participants made comments such as, “*don’t have monitoring system to see if perpetrator gets new guns*”, “*easy to lie in court and not get caught*”, “*the policy relies on the respondent to tell the truth about guns*”, and “*people will bury their guns before they surrender them.*” With regard to urban and rural differences, significantly more urban professionals than rural professionals mentioned issues related to limitations with state laws and jurisdiction. For example, participants talked about the amount of unregistered firearms in the community that are bought at flea markets or

through other private vendors. With regard to jurisdictional issues, one participant said, *“the policy is hard to actually enforce by taking guns because the Sheriff’s office can’t search homes for the guns.”*

There were several other themes related to community inability to enforce the order that were mentioned by a significantly higher proportion of rural professionals than urban professionals. Nearly 32% of rural professionals compared to zero urban professionals mentioned that community agencies actively do not or choose not to enforce the policy. For example, one participant said, *“there’s a good ol’ boy network in the community where sometimes law enforcement won’t even serve the protective orders never mind take the perpetrator’s guns.”* Other participants mentioned that the policy is not consistently enforced, depending on the officer on duty and if they let the abuser give guns to family or friends. Another participant suggested that he/she was *“spectacle of the motivation that law enforcement would want to take guns away from people.”*

A significantly higher proportion of rural professionals than urban professionals also mentioned gun, hunting, and gender norms in their community as a reason why for why the community is unable to enforce the policy. Again, and as seen in the responses of other open-ended questions, participants typically mentioned the “good ol’ boy system”, importance of hunting in the community, and strong beliefs in the second amendment. However, participants also provided insight into the deep value of guns in the community with comments such as, *“taking someone’s guns would be worse than putting them in jail”*, *“taking a gun away from a man is disrespectful and emasculating”*, and that *“families in this area are loyal and will hold guns for each other and protect the perpetrator.”* Finally, a significantly higher percentage of rural professionals than urban

professionals also mentioned lack of resources as a theme for community inability to enforce the policy. For example, participants described that “*there’s nowhere to put the guns*” and that their community lacks “*time, money, and staff needed to enforce the policy.*”

Perceived ability: Community type x agency type interactions. There were no significant community type x agency type interactions for the perceived ability responses.

4.6 Likelihood of Consistently Implementing Gun Confiscation

Participants working in the urban community rated the likelihood of consistently implementing all four gun confiscation procedures as higher than those working in the rural communities (Table 16): likelihood that a judge will consistently order respondents to surrender their guns as part of an EPO ($p = .001, \eta^2 = .078$) and DVO ($p < .001, \eta^2 = .207$); likelihood that consistent arrangements will be made for respondents to surrender their guns within 24 hours of an EPO being issued ($p = .001, \eta^2 = .079$, and DVO hearing ($p < .001, \eta^2 = .255$).

Table 16: Average likelihood ratings of consistent gun confiscation occurrence

	Urban M (SD)	Rural M (SD)	F	p
Respondents will be consistently ordered by a judge to hand over their guns to law enforcement as part of an <u>EPO</u>	2.81 (1.18)	2.18 (1.07)	10.80	.001
Respondents will be consistently ordered by a judge to hand over their guns to law enforcement as part of a <u>DVO</u>	3.46 (.84)	2.49 (1.09)	33.12	<.001
Consistent arrangements will be made by the courts or law enforcement for respondents to turn in their guns within 24 hours of an <u>EPO</u>	2.54 (1.16)	1.94 (.95)	10.89	.001
Consistent arrangements will be made by the courts or law enforcement for respondents to turn in their guns within 24 hours of a <u>DVO</u>	3.21 (.95)	2.08 (.99)	43.49	<.001

Note. Responses were measured on a four point rating scale (1 = *not at all*, 2 = *somewhat*, 3 = *quite*, 4 = *extremely*); SD = standard deviation; EPO = emergency protective order; DVO = domestic violence order

Likelihood of consistently implementing gun confiscation: Community type x agency type interactions. There were no significant interactions between community and agency type for the likelihood ratings of future consistent gun confiscation procedures.

4.7 Relationship between Risk-Benefit Tradeoff, Community Ability, and Likelihood of Gun Confiscation Results

Two hierarchical linear regressions were used to model the relationship between the risk-benefit tradeoff and community ability measures with likelihood of communities consistently engaging in future gun confiscation at the EPO and DVO level. The four likelihood of gun confiscation measures were reduced to two primary dependent measures for the linear regressions: (1) *Likelihood of gun confiscation at the EPO stage*, which averaged how likely a judge would consistently order guns to be surrendered following an EPO and how likely consistent arrangements would be made for respondents to turn in their guns within 24 hours of an EPO being issued (Cronbach's alpha = .82); and (2) *Likelihood of gun confiscation at the DVO stage*, which averaged how likely a judge would consistently order guns to be surrendered following a DVO and how likely consistent arrangements would be made for respondents to turn in their guns within 24 hours of a DVO hearing (Cronbach's alpha = .88).

Each of the quantitative, close-ended measures used within the risk-benefit tradeoff component and the community ability component were included in the linear regressions. However, some measures were averaged to create a combined measure of a similar construct. With regard to the risk-benefit tradeoff subcomponents, the two perceived seriousness measures (i.e., how big of a problem intimate partner gun violence is in community and how big of a problem is intimate partner homicide in community)

were averaged to create a combined measure of the seriousness of intimate partner gun violence/homicide in the community (Cronbach's alpha = .80). All other risk-benefit tradeoff components were entered in the model individually. With regard to the community ability subcomponents, participants' estimations of the proportion of community members who hunt, own a firearm, and favor one's right to bear arms over gun control were averaged to create a combined measure of normative beliefs/behaviors about guns (Cronbach's alpha = .84). Additionally, ratings of the priority of intimate partner gun violence and priority IPV in general within the community were averaged to create a combined community priority measure (Cronbach's alpha = .81).

The length of time the participant worked at their agency, community type, and agency type were all entered at model 1; the five risk-benefit tradeoff measures were entered at model 2; the five community ability measures were entered at model 3; all two-way interactions of the risk-benefit tradeoff measures with both community and agency types were entered at model 4; and all two-way interactions of the community ability measures with both community and agency types were entered at model 5. The results of the linear regressions are shown in Table 17 (likelihood of EPO gun confiscation) and 18 (likelihood of DVO gun confiscation). Because no interaction terms were significant when added in models 4 and 5, the tables only show the hierarchical linear regression results for models 1 through 3.

Table 17: *Linear regression results for a community to consistently engage in gun confiscation at the EPO stage*

	Model 1				Model 2				Model 3			
	<i>B</i>	<i>SE B</i>	β	<i>p</i>	<i>B</i>	<i>SE B</i>	β	<i>p</i>	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Rural community professional	-.51	.18	-.25	.006**	-.41	.19	-.20	.032*	-.27	.27	-.11	.403
Victim Service professional	-.27	.18	-.13	.147	-.35	.19	-.17	.068	-.27	.20	-.13	.185
Combined perceived seriousness of IPV gun violence/homicide (1a-i.)					.19	.17	.13	.278	.10	.18	.07	.588
Perceived risk of victims to be killed with gun (1a-ii.)					-.01	.13	-.01	.917	.00	.13	-.00	.981
Estimate IPV victims out of 10 threatened with a gun (1a-ii.)					-.16	.05	-.36	.001***	-.14	.05	-.30	.007**
Estimate IPV victims out of 10 injured or killed with a gun (1a-ii.)					.12	.05	.24	.023*	.12	.05	.24	.026*
Perceived effectiveness of gun confiscation (1b-ii.)					.03	.09	.03	.731	-.02	.10	-.02	.828
Average number of community barriers (2a-i.)									.01	.06	.03	.801
Combined normative beliefs/behaviors about guns (2b-i.)									.00	.01	-.02	.857
Community approval of policy (2b-ii.)									.14	.12	.11	.263
Combined community priority measure (2c-i.)									.15	.12	.11	.234
Perceived ability to implement policy (2c-ii.)									.17	.11	.16	.119
<i>R</i> ²		.09				.17				.22		
<i>F</i> for change in <i>R</i> ²		5.67**				2.43*				1.38		

Note. SE = standard error; **p* ≤ .05, ***p* ≤ .01, ****p* ≤ .001

4.7.1 Gun confiscation at the EPO stage. As seen in Table 17, participants' community type and measures related to the perceived risk of intimate partner gun violence/homicide were significantly associated the perceived likelihood of consistently implementing gun confiscation after an EPO is issued. Specifically, being an urban community professional was significantly associated with increased perceived likelihood of consistently implementing gun confiscation in model 1 ($\beta = -.24, t = -2.63, p = .010$) and in model 2 when the risk-benefit tradeoff measures were added to the model. Higher estimates of IPV victims who would be killed or injured by a gun in the community was significantly, positively associated with likelihood of gun confiscation after an EPO when

entered in model 2 ($\beta = .24, t = 2.21, p = .029$) and remained significant in model 3 when the community ability measures were added. Increased estimates of IPV victims who would be threatened with a gun in the community was significantly, negatively associated with likelihood of gun confiscation after an EPO in model 2 ($\beta = -.30, t = -2.57, p = .012$) and remained significant in model 3.

Table 18: *Linear regression results for a community to consistently engage in gun confiscation at the DVO stage*

	Model 1				Model 2				Model 3			
	<i>B</i>	<i>SE B</i>	β	<i>p</i>	<i>B</i>	<i>SE B</i>	β	<i>p</i>	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Rural community professional	-.98	.16	-.45	<.001***	-.88	.18	-.43	.001***	-.84	.24	-.41	.001***
Victim Service professional	-.36	.17	-.17	.031*	-.36	.18	-.17	.040*	-.15	.18	-.08	.409
Combined perceived seriousness of IPV gun violence/homicide (1a-i.)					.21	.16	.14	.189	.10	.16	.07	.546
Perceived risk of IPV victims to be killed with gun (1a-ii.)					-.13	.12	-.11	.276	-.10	.12	-.08	.388
Estimate IPV victims out of 10 threatened with a gun (1a-ii.)					-.05	.05	-.11	.290	-.03	.05	-.07	.510
Estimate IPV victims out of 10 injured or killed with a gun (1a-ii.)					.01	.05	.01	.903	-.00	.05	-.00	.989
Perceived effectiveness of gun confiscation (1b-ii.)					.03	.09	.03	.707	-.06	.09	-.05	.534
Average number of community barriers (2a-i.)									-.08	.05	-.15	.129
Combined normative beliefs/behaviors about guns (2b-i.)									.01	.01	.10	.390
Community approval of policy (2b-ii.)									.27	.11	.22	.015*
Combined community priority measure (2c-i.)									.10	.10	.10	.301
Perceived ability to implement policy (2c-ii.)									-.03	.11	-.02	.806
<i>R</i> ²			.27				.29				.38	
<i>F</i> for change in <i>R</i> ²			22.23***				.64				3.01*	

Note. SE = standard error; * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

4.7.2 Gun confiscation at the DVO stage. As seen in Table 18, working in an urban area was associated with increased perceived likelihood ratings of consistently implementing gun confiscation after a DVO hearing when entered at model 1 ($\beta = -.46, t$

= -5.76, $p < .001$) and remained significant through model 3, as risk-benefit tradeoff measures and community ability measures were added. Participants' agency type was also significantly associated with the perceived likelihood gun confiscation at the DVO stage at model 1 ($\beta = -.17$, $t = -2.19$, $p = .031$) through model 2 when the community ability measures were added to the model; being a victim service participant was negatively associated with perceptions that a community would consistently implement gun confiscation at the DVO stage in the future. Additionally, increased ratings that the community would approve of gun confiscation of abusers was significantly associated with increased likelihood of consistently implementing gun confiscation after a DVO hearing when entered at model 3 ($\beta = .25$, $t = 2.74$, $p = .007$).

Chapter 5: Discussion

The present study investigated how and why communities that differ in culture and resources are likely to consistently implement gun confiscation procedures at the community level. The results yielded four primary findings. First, implementing gun confiscation procedures to disarm abusers in rural communities does not seem likely or feasible compared to the urban community given the lower perceived risk-benefit of gun confiscation, importance of gun culture, and limited resources in the selected rural communities. Second, urban justice system professionals, in comparison to urban victim service professionals, reported fewer barriers to enforcing the gun confiscation policy and were more likely to downplay law enforcement limitations in the community and attribute the ineffectiveness of the gun confiscation policy to reasons outside their control. Third, although working in an urban community had the strongest association with the likelihood of consistently implementing gun confiscation procedures in the future, the perceived risk of intimate partner gun violence was associated with implementing in gun confiscation at the EPO (short-term) level, and the perceived community approval of the policy was associated with engaging in gun confiscation at the DVO (longer-term) level. Fourth, both urban and rural professionals pointed out potential unintended negative consequences to implementing the gun confiscation policy, such that it violates second amendment rights of an abuser and concerns about negative repercussions for victims who seek protective orders.

The following sections will discuss: (1) each of the four main findings and their implications (i.e., Rural Community Context in Implementing Gun Confiscation, Professional Agency Context in the Urban Area, Likelihood to Take Action at the

Emergent versus Long Term Stage, Unintended Negative Consequences of Gun Confiscation); (2) the limitations of the present study; (3) future directions; and will end with a (4) conclusion.

5.1 Rural Community Context in Implementing Gun Confiscation

The first primary research question investigated differences in the components of the conceptual framework between urban and rural, Appalachian communities. The results revealed many differences in urban and rural communities throughout each component of the guiding conceptual framework. With regard to the risk-benefit tradeoff, professionals working in rural communities viewed intimate partner-related gun violence and homicide as less serious issues in the community. It is possible that because there are fewer individuals in each of the rural communities than in the urban community, there are fewer homicides in the rural communities. Relatedly, gun related-crime is less common in rural areas compared to urban areas (Blocher, 2013). Thus, homicide or gun violence may not be perceived as a serious issue in smaller, rural communities in comparison to urban communities where these crimes are more prevalent. With regard to the “benefit” component, participants working in the rural communities also rated the gun confiscation policy as less effective than urban professionals. Therefore, perceptions that intimate partner gun violence and homicide are not serious enough issues in the community in combination with beliefs that the “remedy” (i.e., gun confiscation) is not an effective solution, creates a low risk-benefit evaluation of gun confiscation in rural communities.

Adding to the low risk-benefit issue, the rural area was much more pro-gun than the urban area. In fact, Blocher (2013) pointed out that the combination of lower levels of gun violence and higher levels pro-gun culture in rural areas in comparison to urban areas

contributes to why there is such an urban-rural divide on beliefs about gun control. When talking about why their community is (un)able and (un)willing to implement the gun confiscation policy, rural participants commonly discussed themes related to the importance of hunting or gun culture and gender-related norms in comparison to urban participants. Rural participants made clear the value of guns in the rural area, as they highlighted the sentimental value tied to guns and that guns are often passed down from generation to generation. This sentimental value to guns is also connected to the practical value of guns given the popularity and significance of hunting in rural communities (Botcher, 2013). Finally, unlike urban participants, rural participants discussed the value of guns to rural men's perceived masculinity. Participants explained that a gun is part of what makes a male in Eastern Kentucky a man and that taking that away from him would be very emasculating. Therefore, guns go beyond practical use for sporting in the rural area and are tied to much deeper meaning in the lives of rural community members.

Finally, there were more barriers to enforcing the gun confiscation policy and lower community readiness to implement the policy in the rural area. Rural communities face challenges related to limited resources, such as funding and personnel, in addition to pro-gun cultural barriers to implementing gun confiscation. There are also unique geographical challenges in rural areas to consider. For example, rural professionals explained that the large geographic layout of their rural area was a reasons why it is difficult to both serve protective orders and easy to hide guns, making the gun confiscation policy ineffective in their communities. This was also evidenced in Logan et al. (2009)'s investigation of protective order effectiveness in Kentucky, as the authors pointed out that the vast layout and mountainous topography of Eastern Kentucky can

pose barriers to law enforcement and victims' access to resources. In sum, a low risk-benefit evaluation combined with high amounts of barriers, strong gun culture, and lack of a community priority in addressing intimate partner gun violence, contributes to why rural communities are less likely to consistently implement mandated gun confiscation at a community level.

Given the cultural and contextual differences in rural and urban communities, rural communities may need additional or different motivators to implement community initiatives related to gun confiscation. These motivators may include additional education, funding for personnel and programs, and different framing of the issue surrounding IPV and gun violence. It is important to note that although rural professionals perceived their community as less likely to approve of mandated gun confiscation as part of a protective order, similar proportions (nearly two thirds) of participants in urban and rural communities reported that individuals in their community would agree that domestic violence abusers' access to guns should be restricted. Therefore, many participants in rural communities likely support the protection of women from fatal violence and believe in restricting weapon access of dangerous individuals. However, the local policies that are implemented to achieve these things may need to be framed in a different way for rural versus urban communities.

Some participants in the rural area suggested that before the community starts focusing on gun-related policies, there needs to be a greater focus on decreasing IPV in general. Keeping in mind that resources are more limited in rural communities, efforts can still be made that do not necessarily require additional employment or personnel. These efforts can include domestic violence committees or task forces consisting of

community professionals from a range of key agencies who are interested in prioritizing domestic violence in the community. For example, in response to the issue of intimate partner homicide, Lexington and Louisville have developed task forces, Red Flag and Fatality Review Committee, respectively, which aim to highlight and review high risk domestic violence cases as a means to increase a collaborative community response to the protection of victims (Whethers & Denham, 2014). Such tasks forces hope to enhance communication among different community agencies (e.g., police and prosecutors) to help reduce chances of a fatality occurring in high-risk abusive situations.

However, it is undeniable that it is very difficult to increase education or awareness of the dangers of IPV and train specialized personnel without additional resources. Resources and additional funding in rural communities can be used to build and staff women's shelters, hire advocates who can work at law enforcement offices, and train better judges on the dynamics of IPV. With regard to the latter, of the participants in the present study who attended protective order hearings every week, 100% of urban participants reported that the judge consistently ordered the respondent to surrender his or her weapons compared to only about 37% of participants in the rural community. Researchers suggest that specialized domestic violence or family courts, where the judges are more educated about the dangers of IPV, can help increase the likelihood that gun confiscation (or the surrendering of guns) will occur at the court-level (Frattaroli & Terret, 2006). The present urban community had a family court but not all rural communities had specialized courts and judges. Therefore, increased education and awareness about the dangers of weapons in the context of IPV should be emphasized for non-specialized judges who hear protective orders (Frattaroli & Terret, 2006).

Emphasizing the importance of reducing fatalities and increasing safety without a specific focus on guns may also be a helpful first step introduces the community to the role of weapons in abusive situations. As one participant pointed out, murder is not necessarily access-based, therefore gun laws are not the only answer to preventing intimate partner homicide. Though guns are the most commonly used weapon to kill intimate partners, other weapons, such as knives are commonly used as well (Cooper & Smith, 2011). Thus, addressing the issue of intimate partner homicide without appearing “anti-gun” may be one way to help present the notion of additionally domestic-violence related policies to a resistant community. An example of this type of initiative is the “Project Safe Neighborhoods” program in West Virginia. This program was designed to reduce gun violence in several communities and its media campaign framed domestic violence-related gun efforts as anti-abuse versus anti-gun (Haas & Turley, 2007).

Although gun laws are not the end-all-be-all to reducing intimate partner homicide, the link between intimate partner fatalities and firearms is undeniable (Campbell et al., 2003; Zeoli et al., 2016). Kentucky is largely a rural state, and the idea of enforcing additional gun-related policies at the community-level is not a popular idea in rural areas. This can, consequently, make it difficult to pass gun-restrictive legislation at the state-level. Initiatives that educate the general public, particularly in rural communities, about the link between fatal IPV and firearms, and that removing easy firearm access during separation is helpful, may help communities see the value in the gun confiscation policy. In fact, participants often suggested that if the gun confiscation policy could be explained to community members in a clear way, then individuals would be more likely to accept it given that the policy sounds logical. Research has shown that

individuals react in a more positive way to things that resonate as similar to themselves or on a personal level (Cialdini, 1993). Thus, perhaps using local stories or examples of intimate partner gun violence cases that involved a community member as a way to educate the community on the potential dangers of weapons in IPV may demonstrate that this issue happens in small towns as well—not just in the big city. Additionally, it may be helpful to take an approach that does not focus on federal law or policy-makers in Washington, DC (i.e., “outsiders”), but rather that the issue is a community-level issue and it important to protect one another in the community. Family and community are very important in rural communities (Burns, Scott, & Thompson, 2006; Logan et al., 2009) and presenting the gun confiscation policy as something that will help keep the community safe may be much more successful than focusing on the federal law.

Others have taken the view that perhaps the solution is embrace the natural differences in urban and rural beliefs about guns and center policy around such differences. For example, Blocher (2013) discussed the opposing and entrenched views regarding the second amendment in urban areas where gun-related crime is more prevalent, versus rural areas where gun-related crime is lower and pro-gun culture is more prevalent. He described two distinct gun cultures, “members of the rural gun culture see firearms as a positive and beneficial part of life, members of the urban gun culture see them as threats not only to safety but to their core values” (p. 103), and suggested that urban gun control advocates pass judgment on rural communities for their strong views against gun control. As a remedy to this issue, Blocher (2013) argued for geographic variation in gun policy or “firearm localism”. Essentially, firearm rules and regulations would differ in rural and urban areas, depending on the specific risks and community

beliefs about guns. One example, would be strict gun prohibition of handguns, but hunting guns would not be prohibited in rural areas. Though localized firearm policies may be more welcomed in rural areas, it essentially argues for un-uniform gun laws, which can become problematic. It can be argued that firearm localism sends the message that guns only pose a real danger in IPV in urban communities. In reality, intimate partner gun homicides occur in rural communities as well (Logan & Lynch, 2014) and occurs using long-guns—not just handguns (Violence Policy Center, 2012). Relatedly, though gun violence, particularly involving gangs and street violence, is more common in urban communities, both fatal and non-fatal IPV involving firearms is not specific to urban communities. Thus allowing rural abusers to keep their hunting guns would still leave IPV victims in potential danger.

5.2 Professional Agency Context in the Urban Area

The second primary research question investigated if there would be community type x agency type interactions within the components of the conceptual framework. The results revealed four statistically significant interactions that highlighted differences between justice system and victim service professionals within the urban community only. Although there was a main effect of community type on the average number of barriers to implementing gun confiscation in the community, this effect was driven by urban justice system professionals' lower estimates of perceived barriers in the community. Urban victim service professionals actually reported nearly the same number of community barriers (about 7 out of 10) as both types of rural professionals. Given the limited resources and strong gun culture in the rural area, it understandable why rural professionals would have similar, high estimations of community barriers. However,

differences in the perceived barriers within the urban, resourced community warrants further discussion.

Given that urban justice system professionals, on average, reported two fewer barriers in the community than urban victim service professionals, their lower average number of barriers may have been driven by two specific perceived barriers: (1) urban justice system professionals were significantly less likely than urban victim service professionals to report limited law enforcement resources and (2) intimate partner gun violence is not a big enough problem in the community. It is possible that the agency differences in the urban community were due to a heightened awareness and education of IPV related issues in urban victim service professionals. As previously mentioned, there are many IPV-related initiatives and victim resources in the urban community, making the urban victim service professionals well-versed in the complexities and dangerousness of fatal IPV. Justice system professionals in the urban community may think that the community seems to take the issue of intimate partner gun violence seriously at face value but they may not be privy to the challenges that victim services face in advocating for more community awareness of this issue.

It is also possible that because gun confiscation is generally universally ordered by all family court judges in the urban community, victim service professionals, such as victim advocates, would be privy to the challenges that the justice system faces in attempting to enforce this policy. Therefore, victim service professionals would have an inside perspective on the challenges of enforcing gun confiscation without responding in a biased, self-protective way because they are not the ones trying and failing to enforce the policy. Justice system professionals were less likely than victim service professionals

to report that law enforcement resources were a barrier to the policy, suggesting an in-group agency bias in how different professional types perceive the challenges of enforcing the policy. Further, in their open-ended responses, urban justice system professionals were also significantly more likely urban victim service professionals to attribute the gun confiscation policy's ineffectiveness to the easy access to guns in society. This is rather a larger issue related to implementing effective background checks and monitoring individuals who are prohibited from possessing a firearm. Though these are major issues in enforcing gun control policies in general (Vigdor & Mercy, 2006; Webster & Vernick, 2013; Zeoli et al., 2016), it is possible that justice system professionals in the urban community, who have the largest role in implementing gun confiscation, view the barriers of enforcement as outside their control.

The fact that these professional agency type differences were found specifically in the urban community, which is more resourced and has more readiness to implement community-level gun confiscation initiatives, is an important finding to consider in the context of the present study. Perhaps at a basic level, a community needs the appropriate motivators and infrastructure (e.g., resources, consideration of community values) to implement community-based initiatives to disarm abusers. When a community is able to attempt such initiatives, then issues related to professional agency culture within the community may arise. That is, the role of agency differences is secondary to if a community is completely unwilling, unable, and under resourced to implement gun confiscation. The issue of perceived community differences among service agencies should be considered when implementing efforts to reduce intimate partner gun violence and homicide in urban communities. For example, do victim service professionals feel

more pessimistic about community barriers because they are the ones to work with victims when an abuser is not complying with the justice system or the justice system fails? Do justice system professionals understand the weaknesses in the system that leave victims unprotected? Further investigation of where professionals from different agencies assign blame of shortcomings in the system and how they believe the system can improve may help promote more inter-agency collaboration to implement protective policy in urban communities that already have an existing infrastructure.

5.3 Likelihood to Take Action at the Emergent versus Long Term Stage

The third primary research question investigated the relationship between the components of the conceptual framework and a community's likelihood of consistently engaging in gun confiscation in the future. Although it is clear that living in an urban versus rural, Appalachian community accounted for the greatest proportion of variance in consistently implementing gun confiscation in the future, other components of the framework emerged as significant factors associated with gun confiscation. First, at the EPO stage, the estimated number of IPV victims out of 10 who would be killed or injured by a gun in the community was *positively* associated with gun confiscation while the number of victims out of 10 who would be threatened by a gun was *negatively* associated with gun confiscation. It is intuitive that higher estimates of IPV victims who would be killed or injured by a gun (i.e., increased perceived vulnerability of IPV victims) would be positively associated with gun confiscation. However, the finding that higher estimates of victims who would be threatened by a gun is negatively associated with gun confiscation at the EPO level is puzzling. Given that participants, on average, estimated that about half of IPV victims are threatened with a gun, it is possible that participants

viewed threats with a gun as a relatively common or normal occurrence in abusive situations and perhaps not something that would impact their evaluation of the victim's risk for murder. Participants sometimes mentioned that abusers threaten victims "all the time" with weapons, but that it does not necessarily mean that the abuser actually follows through with a threat.

Additionally, a threat with a gun versus injury with a gun may be viewed as two very different circumstances in a protective order petition, particularly in a rural area where gun ownership is so common or normal. It would be a bold move for an abuser's guns to be confiscated at the EPO level in a rural, pro-gun community prior to an actual hearing before a judge. Even the federal law does not prohibit firearm possession before a respondent appears before a judge in a protective order hearing. If the victim was actually injured by a gun when the EPO was filed, it would of course change the perceived risk to the victim and even rural communities may view gun confiscation as necessary before the hearing. For whatever reason, it is clear that in the present study the risk for threats and risk for actual action (i.e., death or injury) did not have the same relationship with the likelihood of consistently engaging in future protective behavior. Future work is needed in this area to examine if this phenomenon was specific to the present study or the specific issue (i.e., implementing gun confiscation) or if these threats differ on a theoretical level in the context of the framework. For example, threats may not promote enough risk to increase the threshold of perceived risk that would propel a community into action—especially if other components of the framework, such as community barriers and cultural norms, keep the community at an inactive state.

Second, higher ratings of perceived community approval for the gun confiscation policy were positively associated with increased likelihood of consistently implementing gun confiscation at the DVO level. This effect may have been driven by the general culture and acceptance of IPV initiatives in the urban community and the strong culture of guns and second amendment beliefs in the rural communities. Therefore enforcing gun confiscation at the DVO level is a longer term protection plan that a community may not take lightly. This is logical given that gun confiscation following a DVO hearing would prohibit the respondent from owning a gun for the duration of the protective order, which would most likely be at least three years. Further, the gun ban would continue if the DVO was extended and granted again following the initial three years.

When taken together, the results suggest that the risk-benefit tradeoff component of the framework is more relevant to implementing gun confiscation at an immediate, emergency stage, while the community ability component is more relevant to implement gun confiscation at the DVO stage, which is a more permanent order and involves an actual hearing. This was further supported in the hierarchical modelling (i.e., significant change in R^2) as components of the conceptual framework were added to the regression models. The community ability measures did not add a significant proportion of variance when added to the EPO likelihood model but did account for a significant proportion of additional variance in the model when added to the DVO likelihood model. Similarly, and the risk-benefit tradeoff measures did not add a significant proportion of variance when added to the DVO likelihood model but did add a significant proportion of variance when added to the EPO likelihood model.

This information may be of value when strategizing ways to implement community-based initiatives to restrict abusers' access to firearms. If the ultimate goal is to implement statewide domestic violence-related gun laws, then efforts need to be made to motivate all types of communities to make gun confiscation in the context of IPV a priority. Thus, if normative beliefs of how the community will approve of the policy is a key factor in the likelihood of implementing community-level initiatives, then a community's culture should be taken into account when motivating a community to take action. Guns and hunting will likely always be a strong part of rural culture, therefore rather than focusing on fighting gun culture, rural communities may need alternative motivators that emphasize the protection of women and families, for example, which are also strong aspects of rural culture. If the perceived risk of IPV victims is a factor related to gun confiscation at the emergency level, then initiatives should focus on educating both the general public and community professionals on the potential dangers of access to a gun during a victim's separation from an abuser. This may be of particular importance in rural communities that lack specialized family court judges who are familiar with the dynamics of abuse (Frattaroli & Terret, 2006).

5.4 Unintended Negative Consequences of Gun Confiscation

Because the issue of gun laws and gun control is a controversial and complicated topic, particularly when considering urban and rural gun cultures, it is worthwhile to discuss both the positives and negatives of gun confiscation as perceived by participants in the present study. Regardless of community or agency type, the two most common benefits to gun confiscation were that the policy reduces the easy availability of guns in an abusive situation and that it protects IPV victims from harm. Other benefits included

that the policy reduces fatalities, increases the safety of those other than the victim, sends a message that IPV is taken serious, makes the victim feel safer, holds abusers accountable, and provides a cool-down period for abusers to think about their actions. Several participants pointed out that removing guns would require abusers to obtain a new gun illegally, which would buy a victim more time to safety plan or escape, show criminal intent if they tried to attempt harm or murder, and perhaps result in getting caught trying to illegally obtain firearms.

However, participants also highlighted several potential unintended negative consequences to gun confiscation. The most commonly reported potential negative consequence of all professional types was that the policy might antagonize the perpetrator, given the value of guns in Kentucky, and actually increase the danger of the victim. Also related to this theme, multiple professionals in the present study explained that if hunting is what keeps an abuser out of the house, then he will be stuck at home, angry and will want to retaliate against the victim if his guns are taken. Participants explained that abusers may already be angry with the victim for seeking a protective order and that the gun confiscation aspect may push him “over the edge” and actually increase the likely of fatality. Another potential negative consequence was that the gun confiscation policy may deter victims from seeking protective orders. That is, women may either fear retaliation from the abuser (related to the previous theme) or not want the perpetrator to have to give up his guns. The latter may be of particular relevance in rural areas where so much value is placed on one’s gun collection. Both themes related to perpetrator retaliation and deterrents to seeking protective orders were also echoed in

Lynch and Logan's (2015) interviews with IPV victims about gun confiscation in Kentucky.

Though deterring women from seeking protective orders was a concern, urban professionals more so than rural professional, reported that the gun confiscation policy may have the consequence of providing a false sense of security for victims. Providing a peace of mind for victims was also mentioned as a benefit of the policy, making this notion a double-edge sword. Participants who mentioned this theme as a negative consequence typically discussed that though the policy may provide a peace of mind for victims, it is dangerous for victims to then stop safety planning or stop taking precautions if they believe that the gun confiscation order will protect them. Some participants emphasized that a protective order is just "a piece of paper" and that victims, particularly in high risk situations, must not assume that the abuser will comply with the order. Therefore, professionals who are advising victims should recommend that victims still safety plan and account for the potential dangers of firearms in their plans even though a protective order has been granted.

Finally, general concern for the protective order respondent's right to a gun was the most commonly mentioned theme for rural professionals. Responses within this theme reflected both concern that innocent individuals would lose their right to bear arms and that even abusers who "wouldn't think" to shoot their victim lose their right to a gun. Under this theme, only rural professionals mentioned that individuals in their community often filed protective orders against their partner for reasons other than domestic violence, such as motivations in a custody battle. Also, only rural professionals also suggested that just because an abuser is psychologically or even physically violent, that

does not mean that he would use a gun against a victim. It appeared that for rural communities in particular, strong beliefs about the second amendment, concerns with the ability to protect oneself, and separation of (hunting) guns from domestic violence all contributed to the tendency to consider the rights of the abuser over the potential protection of the victim.

The issue of balancing the right to bear arms with potentially protecting victims of violence and punishing those who are violent, is currently a heated legal and political dispute. The United States Supreme Court is in the process of hearing a case, *Voisine v. United States*, which questions if it constitutional for a defendant, who was convicted of a domestic violence misdemeanor, to lose his right to own a firearm for the rest of his life—even if he did not use a firearm as part of the domestic violence. Supreme Court Justice Clarence Thomas recently questioned the current federal law during oral arguments, which prohibits the defendant from owning a gun, “*a constitutional right is suspended—even if [the domestic violence] is unrelated to the possession of a gun?*” (Stern, 2016). This is the same argument that many key professionals made in the present study and that divides Americans in their beliefs about gun right and gun control: is it constitutional to take away the right to bear arms of a non-felon? Rural professionals in particular commented that their community would not agree with a policy that stripped protective order respondents of their right to bear arms because he or she may not have actually been convicted of a crime. Some participants in the present study, like Supreme Court Justice Thomas, even questioned if it is right to take away the guns of an abuser who has not used a gun as part of the abuse.

5.5 Study Limitations

The limitations of the present study are important to consider and provide ample opportunity for future work. First, the present study was not a statewide or national investigation of the implementation of a domestic violence gun policy. Therefore, there are generalizability issues and the data reflect only certain communities in a single state. In Kentucky there is another urban county that is even more populated and has even more initiatives related to intimate partner homicide and gun violence. Therefore, even though there are few urban areas in Kentucky, the urban community in the present study may not reflect all of urban Kentucky. There are similar concerns with regard to the rural communities. Communities from only Eastern Kentucky (i.e., Appalachia) were sampled. As previously mentioned, Appalachia is more impoverished and under-resourced than the rest of Kentucky (Appalachian Regional Commission, 2014a), and is therefore reflective of a specific subset of rural communities. It is unknown how the results would compare to another rural area of Kentucky, such as Western, rural Kentucky. Even within Appalachian Kentucky, there are varying degrees of poverty and resources, which should also be considered when before generalizing the results. A statewide investigation that samples each region would be an excellent next step in the investigation of implementing domestic violence gun policy.

Second, this study was largely exploratory in nature in that this was the first known time that this specific conceptual framework was used to guide the investigation (i.e., measures and analyses) of the implementation of domestic violence gun policies. However, the interview questions were developed based on an extensive review of the literature and previous work using the framework components (i.e., the health belief model, normative beliefs, and community readiness), and the interview was piloted twice.

Because the use of the guiding conceptual framework was a research question in itself, there is room for improvement at a theoretical level. For example, future work should focus on how to better measure community readiness so that it can be incorporated into a statistical model and compared to other constructs in the framework. As previously mentioned, community readiness is often measured qualitatively (Edwards et al., 2000), therefore attempts to quantify community readiness in the present study may have been limited. Additionally, further work is needed to understand why perceived risk associated with threats to use a gun had the opposite relationship with future protective behavior than perceived risk of actually being killed or injured by a gun.

Third, although efforts were made to contact all referred key professionals at the targeted or referred community agencies, not all participants could be reached within the data collection window. Therefore, not all key agencies in every county were represented in the data. For example, there was no representation from the Sheriff's office in the urban county and only one protective order hearing judge from the rural area was able to participate. Though the Sheriff's office and judges do play an integral role in enforcing the gun confiscation policy, other community professionals were able to provide insight to common procedures that would be carried out by the missing professionals. However, the results should be considered in light of the fact that some key agencies did not participate in all five communities.

Fourth and related to the previous point, justice system professionals, especially in the rural area, were underrepresented in comparison to victim service professionals. Though more referrals were victim service professionals, more of the eligible participants who did not complete an interview were justice system professionals. Justice system

professionals were generally difficult to contact and in the case of law enforcement and were often in the field during their work hours. Victim service professionals were typically more eager to participate given the topic of the present study and their explicit role in serving victims. The issue of better recruiting justice system professionals, particularly in the rural area, may be remedied in future work by engaging in more face-to-face visits with an agency. In person contact can help provide a face to a name, which is of importance in gaining the trust of professionals in a smaller town where everyone knows one another.

Fifth, although this study incorporated both quantitative and qualitative data, this study was likely underpowered to detect significant community type x agency type interactions. The sample size was driven by community saturation, but 83% of the eligible identified participants were interviewed, which left 28 individuals who either declined or could not be reached for an interview. Therefore the final sample size of 133 individuals poses a power issue with regard to detecting an interaction of a medium effect size (G*Power; Faul, Erdfelder, Lang, & Buchner, 2007). Therefore, in the future new communities should be added to the sample if saturation still yields a lower than desired sample size, and increased in-person recruitment efforts should be made to maximize successful participant retention.

Sixth, the present study collected data only from the perspective of justice system and victim service professionals. Though this methodology provided insight into how community professionals viewed the issues of implementing mandated gun confiscation in urban and rural areas, there are other perspectives that should be considered. For example, the present study did not include professionals who only served or worked with

abusers or individuals who specialized in gun violence (e.g., gun violence researchers, gun range owners) because there would not be enough of each type of professional to form their own category. Also, the perspective of victims and abusers were not directly captured in the present study. Professionals, at times, were able to provide their thoughts on the behavior and concerns of IPV victims or abusers but it would be valuable to gain insight about how abusers themselves feel about guns and gun laws, for example.

Relatedly, the perspective of community members themselves were not captured. The key professionals were used as a proxy at times to estimate how their community felt about gun culture and intimate partner-related firearm policy. Although key informants are assumed to provide valuable insight about a specific topic (Marshall, 1996; Tremblay, 1957; Warheit et al., 1978), the actual beliefs and behaviors of each community were not assessed in the present study. Further, no data were known to be available that provided gun ownership by county or attitudes about guns by county in Kentucky. This information would be helpful to accurately assess aspects of gun culture at a community level. Similarly, the number of intimate partner homicides were not available to the primary investigator for all five counties. Though the framework in the present study focused on the perceived risk of intimate partner homicide and gun violence, it would have been helpful to compare participants' responses to the actual number of intimate partner homicides in the community.

Seventh, there may be concerns of the potential biases impacting key professional responses—particularly given the strong gun culture of the rural area and that many justice system participants may be more exposed to guns than victim service professionals. Further, because interviewing was the medium of data collection, it is

possible that the key professionals may only share information that is socially desirable (Marshall, 1996). Issues of desirability are present in all self-report research. However, in the present study, key professionals were not asked their own personal opinions but are rather giving their professional opinions about intimate partner related gun violence. They were also told in the verbal consent process that the researcher is not looking for a certain response or their personal opinion but rather is trying to better understand an issue at a community and agency level. Nevertheless, it is important to consider this potential bias.

5.6 Future Directions

There are several avenues for future research and practice in light of the present study's implications and limitations. First, it would be ideal and an obvious next step to implement a statewide investigation of protective order gun confiscation procedures. At a basic level, there is no official knowledge in Kentucky of how often and consistently gun confiscation is ordered as part of a protective order and what follow through efforts are made to implement the gun confiscation. Having such information could help researchers and policy-makers strategize about the best ways to develop mandatory procedures statewide. Additionally, a statewide investigation would allow for both procedural and theoretical (i.e., conceptual framework components) comparisons to be made between geographic area (e.g., rural, Appalachian versus rural, Western) and communities with a family court versus no specialized family court.

A statewide investigation of the gun confiscation efforts in the context of IPV would also help provide a better understanding of Kentucky's efforts to reduce intimate partner gun violence and homicide as a whole. The Law Center to Prevent Gun Violence

recently created a “scorecard” that reflects each state’s general gun laws (<http://gunlawscorecard.org/>). Kentucky, like many states, received an “F”. However, this evaluation did not specifically focus on domestic violence-related gun laws and efforts. It would be valuable for domestic violence gun and homicide researchers, scholars, policy-makers, and key community professionals to also receive a domestic violence gun law scorecard for their state. States could be evaluated based on their existing not only on their domestic violence gun laws and injury, but also efforts and policies that aim to reduce domestic gun violence and fatalities. Information gathered via a statewide key informant study may help provide additional information about statewide domestic violence-related firearm efforts. Relatedly, on a local level, it would be beneficial for communities to create their own scorecard that reflects how well their community is addressing the issue of both fatal and non-fatal domestic violence.

Future work should also consider other participant perspectives. The present study employed a key informant methodology, therefore only included community professionals. The perspective of other community professionals can also shed light on how the community as a whole views the issue of intimate partner gun violence. It would also be valuable for researchers to consider the perspective of IPV victims. The goal of this research is to improve a community’s ability to protect victims from potentially fatal violence, thus the voices of women and men who live with this violence should be heard. Additionally, there is no known research that investigated the use of guns in IPV and experience with IPV gun laws in Kentucky from the perspective of abusers. This information would perhaps provide excellent insight into issues with perpetrator compliance and first-hand accounts of the value of guns felt by rural men. Thus an ideal

investigation of implementing IPV policy would consider multiple perspectives in order to inform best practices.

Another avenue for future research is to further develop the conceptual framework by testing other ways to measure the primary components, adding potentially important new components, and testing the existing framework using a different sample. For example one contributing factor of assessing one's risk and making a decision to act in protection are feelings of fear (Lazarus, 1966; Leventhal, 1970; Rogers, 1975), which was not assessed in the present study. Protection motivation theory, for example, incorporates feelings of fear in the threat assessment (Rogers, 1975). It may be worthwhile to assess community professionals perceptions of victim fear in future work to investigate if victim fear adds to perceived risk at a community level. Additionally, the present study did not provide information about what a community can do to address intimate partner gun violence and homicide beyond a gun confiscation policy. This may be of particular importance for the rural communities, where the gun confiscation policy was viewed as less effective and less likely to actually be implemented. Further, protective strategies may be most effective when they are developed around what works in a specific community, which can differ based on community culture and resources. Thus, future work in this area should consider working a component in the framework that assess what else can be done beyond to increase protection beyond the targeted protective behavior used as the outcome.

Finally, future research is needed that investigates the issue of intimate partner homicide both beyond the implementation of the domestic violence protective order gun law. The present study focused only on one domestic violence gun law (i.e., domestic

violence protective order gun prohibition). The second federal domestic violence gun law prohibits domestic violence misdemeanants from owning a firearm for the rest of their lives. However, there is no evidence thus far to suggest that this law implemented at state level reduces intimate partner homicides (Vigdor & Mercy, 2006; Zeoli et al., 2016). Though it is speculated that this is because it is very difficult to classify crimes as a “domestic violence misdemeanor” consistently across each state. It would be valuable to create a standard format for domestic violence misdemeanors to be classified as such so that they can be easily entered into the universal background check system. If these misdemeanors are classified more consistently across states, not only will it improve the ability to flag individuals who should not be allowed to buy a firearm but also it can help researchers accurately assess the efficacy of this law. Participants in the present study pointed out that part of the reason why community members would oppose confiscating guns of a protective order respondent is that the respondent would not have been necessarily convicted of a crime. However, this argument could not be made for the domestic violence misdemeanor gun law. Future research should assess how communities would feel about implementing policies to enforce the domestic violence misdemeanor law and how the barriers are similar and different to the domestic violence protective order gun law.

With regard to looking beyond the issue of gun violence, it is important to keep in mind that though guns play a large role in fatal IPV, there is more to stopping intimate partner homicide than gun control. Education about the dangers, dynamics, and risk factors of IPV should occur both at the community level and in educational institutions. Communities can form committees or task forms that help increase communication

between agencies regarding high risk ongoing domestic violence cases. Community outreach programs should do their best to raise awareness of both local and national resources for IPV victims and their families so they know where nearby shelters are located. It is also important for professionals to effectively safety plan with IPV victims—especially in high risk cases. Helping victims assess the danger of their abusers’ threats and behavior and coming up with concrete escape plans are vital integral in safety planning (Campbell, 2004; Campbell et al., 2007). Future research should examine the quality of safety plan training and efficacy of the planning that community professionals partake in with IPV victims to evaluate how communities can better protect victims from fatal IPV.

Finally, more work is needed to better understand why victims in potentially fatal situations do not seek justice system intervention (e.g., seek a protective order). Much of the current literature, often due to methodological reasons, focuses on women who have contacted the justice system before a murder or attempted murder. However, more information is needed about why victims do not seek help in an effort to increase the successful intervention of community efforts to save IPV victims from potentially fatal violence.

5.7 Conclusion

In conclusion, the present study provided an in-depth investigation at the community level of why communities differing in culture and resources are willing and able to consistently implement gun confiscation as part of a protective order. Although there are many barriers to effectively enforcing domestic violence gun laws, especially in rural areas, this should not discourage researchers, policy makers, and other professionals

from working toward protecting victims from gun violence and fatal IPV. Understanding differences in urban and rural culture allows for more effective strategizing in how to increase a community's ability and motivation to enforce gun policy and how to keep guns out of the hands of dangerous abusers. More effective domestic violence-related gun initiatives at the community level may raise awareness of the risk of guns in the context of IPV and help increase the likelihood that a statewide domestic violence law will be passed. At a basic level, rural communities need additional or different motivators, such as additional funding, education, and consideration of local gun culture, to implement community-level initiatives. At a secondary level, urban, resourced communities may face challenges with regard to differences in service agency culture that can impact how community professionals strategize for ways to improve existing community initiatives. At the end of the day, intimate partner homicide is not specific to one type of community, but rather is a systemic national issue that affects too many women and families throughout the U.S. The solution calls for dialogue, strategies, and efforts of community professionals from all communities, big and small.

Appendix A: Key Professional Interview

Key Professional Interview Information

ID: _____

Date of interview (mm/dd/yyyy): _____

Interview Medium: 1 = phone call 2 = face to face 3 = other: _____

Type of community: 1 = urban 2 = Appalachian

County that key professional serves: _____

Type of key professional: 1 = justice system 2 = victim services

Type of agency representative/job position: 1 = judge 2 = law enforcement

3 = attorney 4 = prosecutor

5 = court clerk/staff 6 = probation/parole

7 = shelter staff 8 = advocate

9 = non-profit 10 = counsellor/social

11 = other: _____ worker

If law enforcement, what type/rank: _____

Primary job responsibilities:

Length of time working at agency (# years): _____

Summary of recruitment: # Phone calls: _____ # Emails: _____

Other: _____

Part I: Perceived Risk of Intimate Partner-Related Gun Violence

I'd like to start by asking you some general questions about the risks of intimate partner violence in your community.

1. What three pieces of advice would you give to a woman whose ex-abuser violated a protective order and continued to threaten her?

1. _____

2. _____

3. _____

2. In your community, how at risk to be killed or injured by a gun do you think the following groups of people are?

	Not at All At Risk	Somewhat At Risk	Quite At Risk	Extremely At Risk
Gang members	1	2	3	4
Innocent civilians	1	2	3	4
Drug dealers	1	2	3	4
Intimate partner violence victims	1	2	3	4
Teenagers	1	2	3	4
Non-intimate partner family members	1	2	3	4

3. In your community, how big of a problem is intimate partner-related gun violence?

1	2	3	4
Not a Problem at All	Somewhat a Problem	Quite a Big Problem	Extremely Big Problem

4. In your community, how big of a problem is intimate partner homicide?

1	2	3	4
Not a Problem at All	Somewhat a Problem	Quite a Big Problem	Extremely Big Problem

5. If you were to estimate, how many intimate partner murders do you think have occurred in your community in the past five years?

6. If you had 10 cases of intimate partner violence in your community, how many victims do you think would end up being threatened with a gun?

7. If you had 10 cases of intimate partner violence in your community, how many victims, do you think would end up getting injured or killed as a result of a gun?

8. I'm going to list several factors that could be related to intimate partner homicide, assuming the victim is a woman and her partner is a man. If you were completing a risk assessment, how much of a risk for intimate partner homicide would you rate the following factors?

	Not At All at Risk	Somewhat at Risk	Quite at Risk	Extremely at Risk
The victim is sent to the emergency department by her partner	1	2	3	4
The partner is stalking the victim	1	2	3	4
Previous sexual violence perpetrated by the partner	1	2	3	4
Previous physical violence perpetrated by the partner	1	2	3	4
Control, jealousy, humiliation, or other forms of psychological abuse perpetrated by the partner	1	2	3	4
The victim is not employed	1	2	3	4
The partner threatened to physically harm the victim	1	2	3	4
The partner threatened the victim with a gun	1	2	3	4
The victim recently separated from the partner	1	2	3	4
The partner has access to a gun	1	2	3	4

Part II: Benefits and Barriers to Implementing Gun Confiscation Procedures

The next questions will be related to your thoughts on ordering abusers to surrender their guns

9. How effective at reducing intimate partner homicide is a policy that requires abusers/respondents in your community to turn in their guns to law enforcement as part of a protective order?

- | | | | |
|------------------|-------------|-----------|---------------------|
| 1 | 2 | 3 | 4 |
| Very Ineffective | Ineffective | Effective | Extremely Effective |

10. Why do you think this policy is effective/ineffective?

11. How much do you agree that your community is able to enforce a policy that requires abusers/respondents to turn in their guns to law enforcement as part of a protective order?

- | | | | |
|-------------------|----------|-------|----------------|
| 1 | 2 | 3 | 4 |
| Strongly Disagree | Disagree | Agree | Strongly Agree |

12. What factors contribute to why your community is able/not able to enforce this policy?

13. What would be three benefits to your community of enforcing a policy that requires abusers/respondents to turn in their guns to law enforcement as part of a protective order?

1. _____

2. _____

3. _____

14. Can you think of any negative consequences in your community to enforcing this policy?

1. _____

2. _____

3. _____

15. I'm going to list a bunch of challenges that could possibly be barriers to enforcing a policy that requires abusers to turn in their guns as part of a protective order. How much of a barrier would you say are the following challenges in your community?

	Not at All A Barrier	Somewhat A Barrier	Very Much a Barrier
Limited law enforcement resources to enforce the policy	1	2	3
Limited victim advocacy resources to push for abusers' guns to be removed	1	2	3
Limited space to store the guns that are removed	1	2	3
Victims do not want their abusers' guns taken away	1	2	3
Additional work for justice system professionals	1	2	3
Intimate partner-related gun violence isn't a big enough problem in the community	1	2	3
People in the community won't agree with that policy	1	2	3
General community belief that the policy is a violation of right to bear arms	1	2	3
Easy to get guns illegally (e.g., street/family)	1	2	3

Hard to know if abusers lie about gun ownership in court	1	2	3
<u>Other:</u>	1	2	3

Part III: Community Norms about Guns and Gun Control

The next questions will be related to how you think people in your community feel about guns and gun-related policies.

16. Which of the following statements do you agree with the most?

___ 1= More men than women in your community support stricter gun restriction policies

___ 2= More women than men in your community support stricter gun restriction policies

___ 3= Equal amounts of men and women in your community support stricter gun restriction policies

17. If you had to guess, what percentage of people in your community:

	%
Hunt	
Own a firearm	
Generally favor one's right to bear arms over gun restriction rights	
Generally agree that Kentucky should enforce/mirror federal gun laws	
Generally agree that domestic violence abusers' access to guns should be restricted	

18. How likely is it that the majority of people in your community would approve of a policy that requires abusers/respondents to turn in their guns as part of a protective order?

1	2	3	4
Not at All Likely	Somewhat Likely	Quite Likely	Extremely Likely

19. Why do you think the majority of people in your community would approve or disapprove of this policy?

Part IV: Readiness of Community to Implement Gun Confiscation Procedures

I'm now going to ask you some questions about programs, policies, and procedures that may have recently occurred in your community.

20. I will list several different programs or initiatives that are related to domestic violence. Please let me know if the following have actively existed in your community in the 12 months:

	No	Yes	Don't know
A fatality review that reviewed intimate partner homicides	1	2	3
Any type of domestic violence-related committee	1	2	3
A special committee that identifies high risk/red flag cases of domestic violence in the community	1	2	3
Domestic violence shelters/organizations/non-profits	1	2	3
A specialized domestic violence unit for law enforcement	1	2	3
Specialized court advocates for domestic violence cases	1	2	3
<u>Other:</u>	1	2	3
<u>Other:</u>	1	2	3

21. How important to your community would you say is the prevention and prosecution of intimate partner-related gun violence?

- | | | | |
|----------------------|--------------------|-----------------|---------------------|
| 1 | 2 | 3 | 4 |
| Not at All Important | Somewhat Important | Quite Important | Extremely Important |

22. How important to your community is the prevention and prosecution of intimate partner violence in general?

1	2	3	4
Not at All Important	Somewhat Important	Quite Important	Extremely Important

23. What best describes how often (on average) you are in domestic violence order hearings:

- ___ 1 = Have never observed a DVO hearing
- ___ 2 = Have previously observed DVO hearing but not within the last 12 months
- ___ 3 = A few times a year but less than once a month
- ___ 4 = About once a month but less than once a week
- ___ 5 = One or more times a week

24. I'm going to read you a list of actions that a judge can take during a domestic violence order hearing with regard to guns. Please let me know if any of the following actions are usually taken:

	No	Yes	Don't know
There is usually no mention of guns	1	2	3
A judge usually asks the respondent if he or she has a gun	1	2	3
A judge usually asks the petitioner if the respondent has any guns	1	2	3
A judge usually tells the respondent that he/she is not allowed to have a gun while the protective order is in place	1	2	3
A judge usually orders the respondent to turn in his/her guns to the courts or local law enforcement	1	2	3
Law enforcement follows up or makes efforts to ensure the guns have been turned in or arrange for guns to be turned in	1	2	3

Comments about procedures:

25. How likely are the following to occur in the next 12 months in your community?

	Not At All Likely	Somewhat Likely	Quite Likely	Extremely Likely
Respondents will be ordered by a judge to hand over their guns to law enforcement as part of an emergency protective order	1	2	3	4
Respondents will be ordered by a judge to hand over their guns to law enforcement as part of a domestic violence order	1	2	3	4
Arrangements will be made by the courts or law enforcement for respondents to turn in their guns within 24 hours of an emergency protective order	1	2	3	4
Arrangements will be made by the courts or law enforcement for respondents to turn in their guns within 24 hours of a domestic violence order hearing	1	2	3	4

Conclusion

Before we finish, I'd like to ask you a question about victim safety.

26. I'm going to read you a list of some common safety suggestions for intimate partner violence victims. How helpful do you think the following ways are that a victim can respond to an ex-abuser who is still threatening or abusing her?

	Not at All Helpful	Somewhat Helpful	Quite Helpful	Extremely Helpful
File a protective order against the abuser	1	2	3	4
Get a gun	1	2	3	4
Apply for a concealed carry license when filing a protective order	1	2	3	4
Safety plan	1	2	3	4
Ask law enforcement for advice/help	1	2	3	4
Seek advice/help from a victim advocate	1	2	3	4

27. Is there anything else you think I should know regarding domestic violence and guns or gun laws in your community?

28. Is there anyone else at your agency or a different agency who you feel would be a good source to talk to with regard to domestic violence gun laws or intimate partner homicide?

0 = No

1 = Yes

Total # of people: _____

Total # agencies: _____

Suggested Participant Information:

Additional Demographic Information

In order to get an idea of the characteristics of the professionals we are interviewing, we have a few questions regarding your demographic information.

Gender of key professional: 1 = female 2 = male

Age of key professional: _____

Race of key professional: 1 = White/Caucasian

5 = Native American

2 = Black/African American

6 = Pacific Islander

3 = Hispanic/Latino

7 = Other: _____

4 = Asian

Key professional is original from: 1 = urban Kentucky (i.e., Lexington/Louisville)

2 = Appalachian Kentucky

3 = other Kentucky: _____

4 = not Kentucky: _____

Thank you so much again for your help! I really appreciate your time. Do you have any final questions? This has been a great interview and your responses were very insightful. I'll give you my email (k.lynch@uky.edu) and please feel free to contact me at any time with questions or further information you would like to share. Thanks again and have a great day!

Final Notes:

Appendix B: Verbal Consent Script

Hello, my name is Kellie Lynch from the University of Kentucky. I am currently working on my dissertation about intimate partner-related gun violence protections in Kentucky. I'm calling because I will be talking to professionals in [*community name*] who have knowledge about domestic violence and/or gun violence. I'll start out asking some general questions about the issue of intimate partner and gun violence in your community. I will then move into specific questions about how your community is able to engage in procedures that can protect intimate partner violence victims from gun violence. I'm specifically interested in what you think about procedures related to court-ordered bans of guns as part of a protective order.

In order to investigate intimate partner gun violence protections, I'm talking with about 200 people within the justice systems and domestic violence agencies that may have insight and expertise into these procedures. These individuals are involved with various agencies such as, law enforcement (e.g., Sheriff's office, state police, city police), probation and parole, state prosecutors, public defenders, domestic violence judges, victim advocates, and violence organizations/shelters. I'm really just interested in your professional opinion about your community with regard to these matters.

If you are willing to answer a few questions today, your name will not be linked to your response when the results are written-up. You will be assigned an ID to your survey for data entry and then your response will be grouped together with other professionals' responses in the results. The interview should take about 20 minutes. Although you will not receive any direct benefits from participating, your responses may help us gain a better idea of how victims of domestic violence can be better protected from gun violence. There are no risks associated with this research and as I mentioned before, your privacy will be protected. You can stop this interview at any time. If you have any questions about this research you may contact the principle investigator, Kellie Lynch, at k.lynch@uky.edu. If you have complaints, suggestions, or questions about your rights as a research volunteer, contact the staff in the University of Kentucky Office of Research Integrity at 859-257-9428 or toll-free at 1-866-400-9428. Are you interested in answering these questions today or another day at your convenience?

[If Say No: Is there someone else you think I should talk to about these issues?]

References

- 1 is 2 Many. (2014).
https://www.whitehouse.gov/sites/default/files/2014_vawa_report.pdf
- Afifi, T. O., Henriksen, C. A., Asmundson, G. G., & Sareen, J. (2012). Victimization and perpetration of intimate partner violence and substance use disorders in a nationally representative sample. *Journal of Nervous and Mental Disease, 200*, 684-691. doi:10.1097/NMD.0b013e3182613f64
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211.
- Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin, 126*, 651-680. doi:10.1037/0033-2909.126.5.651
- Arias, I., & Corso, P. (2005). Average cost per person victimized by an intimate partner of the opposite gender: A comparison of men and women. *Violence and Victims, 20*, 379-391. doi:10.1891/vivi.2005.20.4.379
- Appalachian Regional Commission. (2014a). *County economic status, fiscal year 2014: Appalachian Kentucky*. Retrieved from:
http://www.arc.gov/reports/region_report.asp?FIPS=21999&REPORT_ID=45
- Appalachian Regional Commission. (2014b). *Distressed designation and county economic status classification system, FY 2007 – FY 2015*. Retrieved from:
<http://www.arc.gov/research/SourceandMethodologyCountyEconomicStatusFY2007FY2015.asp>

- Arbuckle, J., Olson, L., Howard, M., Brillman, J., Anctil, A., & Sklar, D. (1996). Safe at home? Domestic violence and other homicides among women in New Mexico. *Annals of Emergency Medicine*, 27, 210-215. doi: 10.1016/S0196-0644(96)70325-6
- Auerbach, C. F. & Silverstein, L. B. (2003). *Qualitative data: An introduction to coding and analysis*. New York: New York University Press
- Bachman, R., & Saltzman, L. (1995). *Violence against women: Estimates from the redesigned survey* (NCJ- 154348). Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.
- Bailey, K. (1994). *Methods of social research*. New York, NY: Free Press.
- Beckett, L. (2014, May 21). Democrats push to restart CDC funding for gun violence research. *ProPublica*. Retrieved from: <http://www.propublica.org/article/democrats-push-to-restart-cdc-funding-for-gun-violence-research>
- Bernard, H.R. (2000). *Social research methods*. Thousand Oaks, CA: Sage.
- Billings, D. & Blee, K. (2000). *The road to poverty: The making of wealth and hardship in Appalachia*. New York, NY: Cambridge University Press.
- Black, M.C., Basile, K.C., Breiding, M.J., Smith, S.G., Walters, M.L., Merrick, M.T., Chen, J., & Stevens, M.R. (2011). *The national intimate partner and sexual violence survey (NISVS): 2010 summary report*. Atlanta, GA: National Center for Injury and Prevention and Control, Centers for Disease Control and Prevention.
- Blackford, L. B. (2015, January 4). Beshears pushing lawmakers to provide dating couples with domestic violence protections. *Lexington Herald Leader*. Retrieved

from: http://www.kentucky.com/2015/01/04/3623966_beshears-pushing-lawmakers-to.html?rh=1

Blocher, J. (2013). Firearm localism. *Yale Law Journal*, 123, 82-146.

Bonomi, A.E., Anderson, M.L., Reid, R.J., Rivara, F.P., Carrell, D., & Thompson, R.S. (2009). Medical and psychosocial diagnoses in women with a history of intimate partner violence. *Archives of Internal Medicine*, 169, 1692-1697

Breiding, M. J., Black, M. C., & Ryan, G. W. (2008). Chronic disease and health risk behaviors associated with intimate partner violence-18 U.S. states/territories, 2005. *Annals of Epidemiology*, 18, 538-544.
doi:10.1016/j.annepidem.2008.02.005

Burgess, A. W., Baker, T., Greening, D., Hartman, C. R., Burgess, A. G., Douglas, J. E., & Halloran, R. (1997). Stalking behaviors within domestic violence. *Journal of Family Violence*, 12, 389-403.

Burns, S., Scott, S., & Thompson, D. (2006). Family and community. In R. Abramson & J. Haskell, (Eds.), *Encyclopedia of Appalachia*, (pp. 149-154). Knoxville, TN: The University of Tennessee Press.

Bush, K. & Lash, S. (2006) Family relationships and gender roles. In R. Abramson & J. Haskell, (Eds.), *Encyclopedia of Appalachia*, (pp. 170-171). Knoxville, TN: The University of Tennessee Press.

Butkus, R., Doherty, R., & Daniel, H. (2014). Reducing firearm-related injuries and deaths in the United States: Executive summary of a policy position paper from the American college of physicians. *Annals of Internal Medicine*, 160, 858-860.
doi:10.7326/M14-0216

- Campbell, J. C. (2004). Helping women understand their risk in situations of intimate partner violence. *Journal of Interpersonal Violence, 19*, 1464-1477.
doi:10.1177/0886260504269698
- Campbell, J. C., Glass, N., Sharps, P.W., Laughon, K., & Bloom, T. (2007). Intimate partner homicide: review and implications of research and policy. *Trauma, Abuse, & Neglect, 3*, 246-249. doi: 10.1177/1524838007303505
- Campbell, J., Jones, A. S., Dienemann, J., Kub, J., Schollenberger, J., O'Campo, P., & ...Wynne, C. (2002). Intimate partner violence and physical health consequences. *Archives of Internal Medicine, 162*, 1157-1163.
- Campbell, J. C., Webster, D., Koziol-McLain, J., Block, C., Campbell, D., Curry, M. A., & ... Laughon, K. (2003). Risk factors for femicide in abusive relationships: Results from a multisite case control study. *American Journal Of Public Health, 93*, 1089-1097. doi:10.2105/AJPH.93.7.1089
- Carpenter, C. J. (2010). A meta-analysis of the effectiveness of health belief model variables in predicting behavior. *Health Communication, 25*, 661-669.
doi:10.1080/10410236.2010.521906
- Center for Disease Control and Prevention National Center for Health Statistics (CDC). (2012). *Compressed mortality file 1999-2009*. Retrieved from:
<http://wonder.cdc.gov/wonder/help/cmfile.html#ICD>
- Center for Research and Education on Violence Against Women and Children. (2014). *Domestic violence - is there a risk of death*. Retrieved from:
<http://www.makeitourbusiness.com/warning-signs/domestic-violence-is-there-a-risk-of-death>

- Champion, V. L. (1993). Instrument refinement for breast cancer screening behaviors. *Nursing Research*, 42, 139-143. doi:10.1097/00006199-199305000-00003
- Champion, V. L., & Menon, U. (1997). Predicting mammography and breast self-examination in African American women. *Cancer Nursing*, 20, 315-322.
- Champion, V. L., Skinner, C. S., & Foster, J. L. (2000). The effects of standard care counseling or telephone/in-person counseling on beliefs, knowledge, and behavior related to mammography screening. *Oncology Nursing Forum*, 27, 1565-1571.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.
- Cialdini, R. B. (1993). *Influence: Science and practice (3rd ed.)*. New York, NY, US: HarperCollins College Publishers.
- Coker, A. L., Smith, P. H., Bethea, L., King, M. R., & McKeown, R. E. (2000). Physical health consequences of physical and psychological intimate partner violence. *Archives of Family Medicine*, 9, 451-457.
- Cole, J., & Anderson, E. (2013). *Sex trafficking of minors in Kentucky*. Lexington, KY: University of Kentucky, Center on Drug and Alcohol Research, Center on Trauma and Children. Retrieved from: <http://www.cdar.uky.edu/CoerciveControl/docs/Sex%20Trafficking%20of%20Minors%20in%20KY.pdf>
- Cooper, A., & Smith, A.L. (2011). *Homicide trends in the United States, 1980-2008. Annual rates for 2009 and 2010*, NIJ 236018. Washington, DC: Bureau of Justice Statistics. Retrieved from: <http://www.bjs.gov/content/pub/pdf/htus8008.pdf>

- Corso, P. S., Mercy, J. A., Simon, T. R., Finkelstein, E. A., & Miller, T. R. (2007). Medical costs and productivity losses due to interpersonal and self-directed violence in the United States. *American Journal of Preventive Medicine*, 32, 474-482. doi:10.1016/j.amepre.2007.02.010
- Dahlberg, L.L., & Mercy, J.A. (2009). History of violence as a public health issue. *AMA Virtual Mentor*, 11, 167-172. Available online: <http://virtualmentor.ama-assn.org/2009/02/mhst1-0902.html>.
- Dawson, M., & Gartner, R. (1998). Differences in the characteristics of intimate femicides: The role of relationship state and relationship status. *Homicide Studies*, 2, 378- 399.
- Drug Enforcement Administration (DEA). (2005). *Drugs and drug abuse, state fact sheets, Kentucky*. Drug Enforcement Administration, Arlington Virginia.
- Dearwater, S.R., Coben, J.H., Campbell, J.C., Nah, G., Glass, N., McLoughlin, E., & Bekemeier, B. (1998). Prevalence of domestic violence in women treated at community hospital emergency department. *Journal of the American Medical Association*, 480, 433–438. doi:10.1001/jama.280.5.433
- DeLeon, P., Hagglund, K. & Wakefield, M. (2003). The behavioral health care needs of rural communities in the 21st century. In B. Stamm (Ed.), *Rural Behavioral Health Care: An Interdisciplinary Guide* (pp. 23-31). Washington, DC: American Psychological Association.
- DeWalt, T. A. (2009). *The primary prevention of sexual violence against adolescents in Racine County and the community readiness model*. Available online: http://epublications.marquette.edu/dissertations_mu/12

- Dillon, G., Hussain, R., Loxton, D., Rahman, S. (2013). Mental and physical health and intimate partner violence against women: A review of the literature. *International Journal of Family Medicine*, 1-15. doi:10.1155/2013/313909
- Drake, R. (2001). *A history of Appalachia*. Lexington, KY: University of Kentucky Press.
- Dresang, L. T. (2001). Gun deaths in rural and urban settings: recommendations for prevention. *The Journal of the American Board of Family Practice / American Board of Family Practice*, 14, 107-115.
- Edwards, R.W., Jumper-Thurman, P., Plested, B. A., Oetting, E. R., & Swanson, L. (2000). Community readiness: Research to practice. *Journal of Community Psychology*, 28, 291-307.
- Eller, R. (2008). *Uneven ground: Appalachia since 1945*. Lexington, KY: University of Kentucky Press.
- Ellingson, L. A., & Yarber, W. L. (1997). Breast self-examination, the health belief model, and sexual orientation in women. *Journal of Sex Education & Therapy*, 22, 19-24.
- Elmendorf, W., & Luloff, A.E. (2001). Using qualitative data collection methods when planning for community forests. *Journal of Arboriculture*, 25, 264-273.
- Elmendorf, W. F., & Luloff, A. E. (2006). Using key informant interviews to better understand open space conservation in a developing watershed. *Arboriculture & Urban Forestry*, 32, 54-61.
- Everytown for Gun Safety. (2014). *Analysis of recent mass shootings*. Retrieved from: <http://everytown.org/documents/2014/10/analysis-of-recent-mass-shootings.pdf>

- Faul, F., Erdfelder, E., Lang, A., & Buchner, A. (2007). GPower 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191. doi:10.3758/BF03193146
- Fishbein, M. (ed.) (1967). *Readings in attitude theory and measurement*. New York, NY: Wiley.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Follman, M., Lurie, J., & Lee, J. (2015, April 22). How much money does gun violence cost in your state? *Mother Jones*. Retrieved from:
<http://www.motherjones.com/politics/2015/04/how-much-money-does-gun-violence-cost-in-your-state>
- Follman, M., Lurie, J., Lee, J., & West, J. (201). What does gun violence really cost? *Mother Jones*. Available online:
<http://www.motherjones.com/politics/2015/04/true-cost-of-gun-violence-in-america>
- Fox, J.A., & Zawitz, M.W. (2007). *Homicide trends in the US: Intimate Homicide*. Washington, DC: Bureau Of Justice Statistics, U.S. Department of Justice.
Retrieved from: <http://www.bjs.gov/index.cfm?ty=pbdetail&iid=966>
- Frank, D., Swedmark, J., & Grubbs, L. (2004). Colon cancer screening in African American women. *ABNF Journal*, 15, 67-70.
- Frattaroli, S., & Teret, S. P. (2006). Understanding and informing policy implementation: A case study of the domestic violence provisions of the Maryland gun violence act. *Evaluation Review*, 30, 347-360.

- Gagne, P. (1992). Appalachian women: Violence and social control. *Journal of Contemporary Ethnography*, 20, 4, 387-415.
- Gastil, J. (2000). Thinking, drinking, and driving: Application of the theory of reasoned action to DWI prevention. *Journal Of Applied Social Psychology*, 30, 2217-2232. doi:10.1111/j.1559-1816.2000.tb02433.x
- Gerney, A., & Parsons, C. (2014). *Women under the gun: How gun violence affects women and 4 policy solutions to better protect them*. Center for American Progress. Retrieved from: <http://cdn.americanprogress.org/wp-content/uploads/2014/06/GunsDomesticViolencereport.pdf>
- Golding, J. M. (1999). Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of Family Violence*, 14, 99-132. doi:10.1023/A:1022079418229
- Goodman, L.A. (1968). *Snowball sampling*. *Annual Math Statistics*, 32, 148-172.
- Guba, E. G. (1990). The alternative paradigm dialog. In E. G. Guba (Ed.), *The Paradigm Dialog* (pp. 17-27). Newbury Park, CA: Sage
- Gunderson, L. (1999). The financial costs of gun violence. *Annals of Internal Medicine*, 131, 483-484. doi:10.7326/0003-4819-131-6-199909210-00102
- Gunsallus, A. (2011). Dangerous exits: Escaping abusive relationships in rural America - By Walter S. DeKerseredy and Martin D. Schwartz. *Rural Sociology*, 76, 424-426.
- Haas, S. M. & Turley, E. (2007). *Project safe neighborhoods in West Virginia: Selected findings from gun crime and domestic violence initiatives*. Charleston, WV: Criminal Justice Statistical Analysis Center, Division of Criminal Justice

Services, Department of Military Affairs and Public Safety. Retrieved from:
www.wvdcjs.com/statsanalysis.

Hamberger, L. K., & Guse, C. E. (2002). Men's and women's use of intimate partner violence in clinical samples. *Violence Against Women, 8*, 1301-1331.

doi:10.1177/107780102762478028

Hardesty, J. L. (2002). Separation assault in the context of postdivorce parenting: An integrative review of the literature. *Violence Against Women, 8*, 597-625.

doi:10.1177/107780102400388452

Harrington, M. (1993). *The other America*. New York, NY: Simon & Schuster.

Harrison, J. A., Mullen, P. D., & Green, L.W. (1992). A meta-analysis of studies of the health belief model with adults. *Health Education Research, 7*, 107-116.

doi:10.1093/her/7.1.107

Hemenway, D., Shinoda-Tagawa, T., & Miller, M. (2002). Firearm availability and female homicide victimization rates among 25 populous high-income countries. *Journal of American Medical Women's Association, 57*, 100-104.

Hepburn, L., Miller, M., Azrael, D., & Hemenway, D. (2007). The US gun stock: results from the 2004 national firearms survey. *Injury Prevention, 13*, 15-19.

Hochbaum, G.M. (1958). *Public participation in medical screening programs: A socio-psychological study* (Public Health Service Publication No. 572). Washington, DC: Government Printing Office.

Howe, K. R. (1988). Against the quantitative-qualitative incompatibility thesis, or, Dogmas die hard. *Educational Researcher, 17*, 10-16.

- Huchting, K., Lac, A., & LaBrie, J. W. (2008). An application of the Theory of Planned Behavior to sorority alcohol consumption. *Addictive Behaviors*, *33*, 538-551.
doi:10.1016/j.addbeh.2007.11.002
- James, D. V., & Farnham, F. R. (2003). Stalking and serious violence. *Journal of the American Academy of Psychiatry and the Law*, *31*, 432-439.
- Janz, N. K., & Becker, M. H. (1984). The health belief model: A decade later. *Health Education Quarterly*, *11*, 1-47. doi:10.1177/109019818401100101
- Janz, N. K., Champion, V. L., & Strecher, V. J. (2002). The health belief model. In Glanz, K., Rimer, B.K., & Lewis, F.M. (Eds.), *Health Behavior and Health Education: Theory, Research, and Practice* (3rd ed). San Francisco, CA: Jossey-Bass.
- Jette, D.J., Grover, L., & Keck, C. P. (2003). A qualitative study of clinical decision making in recommending discharge placement from the acute care setting. *Physical Therapy*, *83*, 224-236.
- Johnson, R. B., & Turner, L. A. (2003). Data collection strategies in mixed methods research. In A.Tashakkori, and C. Teddlie (Eds.), *Handbook Of Mixed Methods In Social And Behavioral Research* (pp. 297-319). Thousand Oaks, CA: Sage.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, *33*, 14-26.
- Jones, J. (2013, February 1). Men, married, southerners most likely to be gun owners. *Gallup*. Retrieved from: <http://www.gallup.com/poll/160223/men-married-southerners-likely-gun-owners.aspx>

- Jones, A. S., Dienemann, J., Schollenberger, J., Kub, J., O'Campo, P., Gielen, A. C., & Campbell, J. C. (2006). Long-term costs of intimate partner violence in a sample of female HMO enrollees. *Women's Health Issues, 16*, 252-261.
doi:10.1016/j.whi.2006.06.007
- Kelly, J. B., & Johnson, M. P. (2008). Differentiation among types of intimate partner violence: Research update and implications for interventions. *Family Court Review, 46*, 476-499. doi:10.1111/j.1744-1617.2008.00215.x
- Kilpatrick, D. G., Acierno, R., Resnick, H. S., Saunders, B. E., & Best, C. L. (1997). A 2-year longitudinal analysis of the relationships between violent assault and substance use in women. *Journal of Consulting and Clinical Psychology, 65*, 834-847. doi:10.1037/0022-006X.65.5.834
- Koss, M.P., Koss, P.G., & Woodruff, W.J. (1991). Deleterious effects of criminal victimization on women's health and medical utilization. *Archives of Internal Medicine, 151*, 342-47.
- Kurz, D. (1996). Separation, divorce, and woman abuse. *Violence Against Women, 2*, 63-81.
- Lamanna, L. M. (2004). College students' knowledge and attitudes about cancer and perceived risks of developing skin cancer. *Dermatology Nursing, 16*, 161-176.
- Lazarus, R.S. (1966). *Psychological stress and the coping process*. New York: McGraw-Hill.
- Leventhal, H. (1970). Findings and theory in the study of fear communications. In L. Berkowitz (ed.) *Advances in Experimental Social Psychology, 5*. New York: Academic Press, 119-86.

- Leukefeld, C., Walker, R., Havens, J., Leedham, C. A., & Tolbert, V. (2007). What does the community say: Key informant perceptions of rural prescription drug use. *Journal of Drug Issues, 37*, 503-524.
- Logan, T. (2007). *Human trafficking in Kentucky*. Lexington, KY: University of Kentucky, Department of Behavioral Science. Retrieved from: <http://www.cdar.uky.edu/CoerciveControl/docs/Human%20Trafficking%20in%20Kentucky.pdf>
- Logan, T. K., & Cole, J. (2007). The impact of partner stalking on mental health and protective order outcomes over time. *Violence and Victims, 22*, 546-562.
doi:10.1891/088667007782312168
- Logan, T., & Lynch, K.R. (2014). *Domestic Violence Fatality Special Report: Kentucky 2010 Homicides*. Prepared for the Statewide Fatality Review Committee. Lexington, KY: University of Kentucky, Department of Behavioral Science. Retrieved online: http://ag.ky.gov/pdf_news/DVFR%20book.pdf
- Logan, T. K., & Walker, R. (2009). Partner stalking: Psychological dominance or 'business as usual'?. *Trauma, Violence, & Abuse, 10*, 247-270.
doi:10.1177/1524838009334461
- Logan, T. K., Walker, R., Cole, J., & Leukefeld, C. (2002). Victimization and substance abuse among women: Contributing factors, interventions, and implications. *Review of General Psychology, 6*, 325-397. doi:10.1037/1089-2680.6.4.325
- Logan, T., Walker, R., Cole, J., Ratliff, S., & Leukefeld, C. (2003). Qualitative differences among rural and urban intimate violence victimization experiences & consequences: A pilot study. *Journal of Family Violence, 18*, 83-92.

- Logan, T. K., Walker, R., & Hoyt, W. (2012). The economic costs of partner violence and the cost-benefit of civil protective orders. *Journal of Interpersonal Violence, 27*, 1137-1154. doi:10.1177/0886260511424500
- Logan, T., Walker, R., Hoyt, W., & Faragher, T. (2009). *The Kentucky civil protective order study: A rural and urban multiple perspective study of protective order violation consequences, responses, & costs*. NCJ 228350. Washington, DC: US Department of Justice, National Institute of Justice. Retrieved from: <https://www.ncjrs.gov/pdffiles1/nij/grants/228350.pdf>
- Logan, T., Walker, R., Jordan, C., & Campbell, J. (2004). An integrative review of separation and victimization among women: Consequences & implications. *Violence, Trauma, & Abuse, 5*, 143-193. doi: 10.1177/1524838003262333
- Logan, T., Walker, R., Jordan, C., & Leukefeld, C. (2006). *Women and victimization: Contributing factors, interventions, and implications*. Washington, DC: American Psychological Association Press
- Logan, T. K., Walker, R., Shannon, L., & Cole, J. (2008). Factors associated with separation and ongoing violence among women with civil protective orders. *Journal of Family Violence, 23*, 377-385. doi:10.1007/s10896-008-9164-9
- Luloff, A. (1999). The doing of rural community development research. *Rural Sociology, 9*, 313-327.
- Lynch, K.R., & Logan, T. (2015) "You better say your prayers and get ready": Guns within the context of intimate partner abuse. *Journal of Interpersonal Violence*. Published online first. doi: 10.1177/0886260515613344

- Lynch, K.R., & Logan, T. (unpublished data). Barriers and challenges to enforcing domestic violence-related gun laws in Kentucky: A pilot study.
- Maguen, S., Armistead, L. P., & Kalichman, S. (2000). Predictors of HIV antibody testing among gay, lesbian, and bisexual youth. *Journal of Adolescent Health, 26*, 252-257. doi:10.1016/S1054-139X(99)00078-6
- Marshall, M.N. (1996). The key informant technique. *Family Practice, 13*, 92-97. doi:10.1093/fampra/13.1.92
- Martin, I. M., Bender, H., & Raish, C. (2007). What motivates individuals to protect themselves from risks: The case of wildland fires. *Risk Analysis, 27*, 887-900. doi:10.1111/j.1539-6924.2007.00930.x
- Mason, S. M., Wright, R. J., Hibert, E. N., Spiegelman, D., Forman, J. P., & Rich-Edwards, J. W. (2012). Intimate partner violence and incidence of hypertension in women. *Annals of Epidemiology, 22*, 562-567. doi:10.1016/j.annepidem.2012.05.003
- McCaughey, J., Kern, D. E., Kolodner, K., Dill, L., Schroeder, A. F., DeChant, H. K., &...Derogatis, L.R. (1995). The “battering syndrome”: Prevalence and clinical characteristics of domestic violence in primary care internal medicine practices. *Annals of Internal Medicine, 123*, 737-746.
- McFarlane, J. M., Campbell, J.C., Wilt, S., Sachs, C.J., Ulrich, Y., & Xu, X. (1999). Stalking and intimate partner femicide. *Homicide Studies, 3*, 300–316. doi: 10.1177/1088767999003004003

- Ménard, K. S., Anderson, A. L., & Godboldt, S. M. (2009). Gender differences in intimate partner recidivism: A 5-year follow-up. *Criminal Justice and Behavior, 36*, 61-76. doi:10.1177/0093854808325905
- Mills, I., & Mills, M. (2014). Gun Control: College student attitudes and the meaning for Appalachian social workers. *Contemporary Rural Social Work, 6*, 72-85.
- Miller, T.R. (1995). Costs associated with gunshot wounds in Canada in 1991. *Canadian Medical Association Journal, 153*, 1261-1268.
- Mohandie, K., Meloy, J. R., McGowan, G., & Williams, J. (2006). The RECON typology of stalking: Reliability and validity based upon a large sample of North American stalkers. *Journal of Forensic Sciences (Wiley-Blackwell), 51*, 147-157.
doi:10.1111/j.1556-4029.2005.00030.x
- Moracco, K.E., Runyan, C.W., Butts, J. (1998). Femicide in North Carolina, 1991-1993. *Homicide Studies, 2*, 422-446. doi: 10.1177/1088767998002004005
- National Center for Injury Prevention and Control (NCIPC). (2003). *Costs of IPV against women in the United States*. Atlanta, GA: Centers for Disease Control and Prevention.
- National Institute of Health (NIH). (2013a). *Research on the health determinants and consequences of violence and its prevention, particularly firearm violence (R01)*. Retrieved from: <http://grants.nih.gov/grants/guide/pa-files/PA-13-363.html>
- National Institute of Health (NIH). (2013b). *NIH calls for research projects examining violence*. Retrieved from: <http://www.nih.gov/news/health/sep2013/nih-27.htm>

- Oetting, E. R., Donnermeyer, J. F., Plested, B. A., Edwards, R. W., Kelly, K., & Beauvais, F. (1995). Assessing community readiness for prevention. *International Journal of the Addictions, 30*, 659-683.
- Oetting, E., Jumper-Thurman, P., Plested, B., & Edwards, R. (2001). Community readiness and health services. *Substance Use & Misuse, 36*(6-7), 825-843.
- Orient, J. M. (2013). "Gun violence" as a public health issue: A physician's response. *Journal of American Physicians and Surgeons, 18*, 77-83.
- Palarea, R. E., Zona, M. A., Lanet, J. C., & Langhinrichsen-Rohling, J. (1999). The dangerous nature of intimate relationship stalking: threats, violence, and associated risk factors. *Behavioral Sciences & the Law, 17*, 269-283.
- Pearson, E., & Adams Otis, G. (2014, May 29). NRA lobbying led to law that stopped CDC from using federal funds to study gun violence. *Daily News*. Retrieved from: <http://www.nydailynews.com/news/national/no-funds-studies-gun-violence-article-1.1809263>
- Pew Research Center. (2013). *Why own a gun? Protection is now top reason. Section 3: Gun ownership trends and demographics*. Retrieved from: <http://www.people-press.org/2013/03/12/section-3-gun-ownership-trends-and-demographics/>
- Pew Research Center. (2014). *Pew research center 2014 political polarization and typology survey final topline*. Retrieved online: <http://www.people-press.org/files/2014/06/APPENDIX-4-Typology-Topline-for-Release.pdf>
- Plichta, S. B., & Falik, M. (2001). Prevalence of violence and its implications for women's health. *Women's Health Issues, 11*, 244-258.

- Politico, (2012, November 19). 2012 Kentucky presidential results. *Politico*. Retrieved from: <http://www.politico.com/2012-election/results/president/kentucky/>
- Pruitt, L. (2008a). Place matters: Domestic violence and rural difference. *Wisconsin Journal of Law, Gender, and Society*, 23, 349-416.
- Pruitt, L. (2008b). Gender, geography & rural justice. *Berkeley Journal of Gender, Law, & Justice*, 23, 338-391.
- Rand, M. R. (1997). *Violence-related injuries treated in hospital emergency departments*. Bureau of Justice Statistics special report. Washington, DC: US Department of Justice. Retrieved from: <http://www.prisonpolicy.org/scans/bjs/vrithed.pdf>
- Ransom, J. (2014, February 23). Rep. Carolyn Maloney calls on President Obama to use \$10M on gun violence research. *Daily News*. Retrieved from: <http://www.nydailynews.com/news/national/carolyn-maloney-calls-obama-10m-gun-violence-research-article-1.1698897>
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *Journal of Psychology*, 91, 93-114.
- Rosenfeld, B. (2004). Violence risk factors in stalking and obsessional harassment: A review and preliminary meta-analysis. *Criminal Justice and Behavior*, 31, 9-36. doi:10.1177/0093854803259241
- Rosenfeld, B., & Harmon, R. (2002). Factors associated with violence in stalking and obsessional harassment cases. *Criminal Justice and Behavior*, 29, 671-691. doi:10.1177/009385402237998

- Ross, T. P., Ross, L. T., Rahman, A., & Cataldo, S. (2010). The bicycle helmet attitudes scale: Using the HBM to predict helmet use among undergraduates. *Journal of American College Health, 59*, 29-36
- Sadler, G. R., Lee, H.-C., Seung-Hwan Lim, R., & Fullerton, J. (2010). Recruiting hard-to-reach United States population sub-groups via adaptations of snowball sampling strategy. *Nursing & Health Sciences, 12*, 369–374. doi:10.1111/j.1442-2018.2010.00541.x
- Saltzman, L.E., Mercy, J.A., Ocarroll, P., Rosenberg, M., & Rhodes, P. (1992). Weapon involvement and injury outcomes in family and intimate assaults. *Journal of the American Medical Association, 267*, 3043-3047.
- Seidler, J. (1974). On using informants: a technique for collecting quantitative data and controlling measurement error in organization analysis. *American Sociological Review, 39*, 816-831.
- Sev'er, A. (1997). Recent or imminent separation and intimate violence against women: A conceptual overview and some Canadian examples. *Violence Against Women, 3*, 566-589. doi:10.1177/1077801297003006002
- Sharps, P. W., & Campbell, J. (1999). Health consequences for victims of violence in intimate relationships. In X. B. Arriaga, S. Oskamp, X. B. Arriaga, S. Oskamp (Eds.) , *Violence in intimate relationships* (pp. 163-180). Thousand Oaks, CA, US: Sage Publications, Inc
- Sheridan, L., & Davies, G. M. (2001). Violence and the prior victim-stalker relationship. *Criminal Behaviour & Mental Health, 11*, 102-116.

- Siegel, M.B., & Rothman, E.R. (2016). Firearm ownership and the murder of women in the United States: Evidence that the state-level firearm ownership rate is associated with the nonstranger femicide rate. *Violence and Gender*, ahead of print. doi:10.1089/vio.2015.0047.
- Smith, T.W., & Son, J. (2015). *General social survey final report trends in gun ownership in the United States, 1972-2014*. Retrieved from: http://www.norc.org/PDFs/GSS%20Reports/GSS_Trends%20in%20Gun%20Ownership_US_1972-2014.pdf
- Slovak, K., & Singer, M. (2001). Gun violence exposure and trauma among rural youth. *Violence and Victims*, *16*, 389-400.
- Slovak, K., & Singer, M. I. (2002). Children and violence: Findings and implications from a rural community. *Child & Adolescent Social Work Journal*, *19*, 35-56.
- Sorenson, S. B., & Wiebe, D. J. (2004). Weapons in the lives of battered women. *American Journal of Public Health*, *94*, 1412-1417. doi:10.2105/AJPH.94.8.1412
- Stark, E. (2007). *Coercive control: How men entrap women in personal life*. New York, NY, US: Oxford University Press.
- Steers, W. N., Elliott, E., Nemiro, J., Ditman, D., & Oskamp, S. (1996). Health beliefs as predictors of HIV-preventive behavior and ethnic differences in prediction. *Journal of Social Psychology*, *136*, 99-110.
- Stern, M.J. (2016, February 29). Clarence Thomas just asked his first question in a decade on the Supreme Court. *The Slate*. Retrieved from:

http://www.slate.com/blogs/the_slatest/2016/02/29/clarence_thomas_asked_a_question_from_the_bench_to_defend_gun_rights.html

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Swift, A. (2015, October 31). Less than half of Americans support stricter gun laws. *Gallup*. Retrieved from: <http://www.gallup.com/poll/179045/less-half-americans-support-stricter-gun-laws.aspx>

The National Domestic Violence Hotline. (2014). *Firearms & domestic violence*. Retrieved from: <http://www.thehotline.org/resources/firearms-dv/>

Tjaden, P., & Thoennes, N. (1998). *Prevalence, incidence, and consequences of violence against women: Findings from the National Violence against Women Survey. Research in Brief*. Washington, DC: National Institute of Justice, Office of Justice Programs, U.S. Department of Justice.

Tjaden, P. & Thoennes, N. (2000). *Extent, nature and consequences of IPV* (NCJ 181867). Washington, DC: National Institute of Justice, Office of Justice Programs, U.S. Department of Justice.

Tremblay, M. (1957). The key informant technique: A nonethnographic application. *American Anthropologist*, 59, 688-701.
doi:10.1525/aa.1957.59.4.02a00100

Truman, J.L., & Morgan, R.E. (2014). *Nonfatal domestic violence, 2003-2012*. Washington, DC: US Department of Justice. Retrieved from: <http://www.bjs.gov/content/pub/pdf/ndv0312.pdf>

- Tollestrup, K., Sklar, D., Frost, F. J., Olson, L., Weybright, J., Sandvig, J., & Larson, M. (1999). Health indicators and intimate partner violence among women who are members of a managed care organization. *Preventive Medicine: An International Journal Devoted To Practice And Theory*, 29, 431-440.
doi:10.1006/pmed.1999.0552
- Umeh, K., & Rogan-Gibson, J. (2001). Perceptions of threat, benefits, and barriers in breast self-examination amongst young asymptomatic women. *British Journal of Health Psychology*, 6, 361.
- U.S. Department of Justice. (2013). *National Instant Criminal Background Check System (NICS) Operations 2013*. Retrieved from: <http://www.fbi.gov/about-us/cjis/nics/reports/2013-operations-report>
- U.S. Department of Defense. (2014). *U.S. Casualty Status Fatalities*. Retrieved from: <http://www.defense.gov/news/casualty.pdf>
- Vernon, I. S., & Jumper-Thurman, P. (2002). Prevention of HIV/AIDS in Native American communities: Promising interventions. *Public Health Reports*, 117, S96-S103.
- Vigdor, E.R., & Mercy, J.A. (2006). Do laws restricting access to firearms by domestic violence offenders prevent intimate partner homicide? *Evaluation Review*, 30, 313-346. doi: 10.1177/0193841X06287307
- Violence Policy Center. (2012). *When men murder women: An analysis of 2010 homicide data*. Retrieved from: <http://www.vpc.org/studies/wmmw2012.pdf>
- Vittes, K. A. & Sorenson, S. B. (2008). Restraining orders among victims of intimate partner homicide. *Injury Prevention*, 14, 191-195. doi: 10.1136/ip.2007.017947

- Vives-Cases, C., Ruiz-Cantero, M. T., Escribà-Agüir, V., & Miralles, J. J. (2011). The effect of intimate partner violence and other forms of violence against women on health. *Journal Of Public Health (Oxford, England)*, 33, 15-21.
doi:10.1093/pubmed/fdq101
- Warheit, G. J., Buhl, J. M., & Bell, R. A. (1978). A critique of social indicators analysis and key informants surveys as needs assessment methods. *Evaluation and Program Planning*, 1, 239-247. doi:10.1016/0149-7189(78)90079-4
- Waters, H., Hyder, A., Rajkotia, Y., Basu, S., Rehwinkel, J.A., & Butchart, A. (2004). *The economic dimensions of interpersonal violence*. Department of Injuries and Violence Prevention, World Health Organization, Geneva. Retrieved from:
<http://whqlibdoc.who.int/publications/2004/9241591609.pdf?ua=1>
- Webb, J. (2004). *Born fighting: How the Scots-Irish shaped America*. New York, NY: Random House, Broadway Books
- Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. (1966). *Unobtrusive measures: Nonreactive research in the social sciences*. Oxford, England: Rand McNally.
- Websdale, N. (1997). The policing of domestic violence in rural and urban areas: The voices of battered women in Kentucky. *Policing and Society: An International Journal of Research and Policy*, 6, 297-317. doi:
10.1080/10439463.1997.9964759
- Websdale, N. (1998). *Rural woman battering and the justice system: An ethnography*. Thousand Oaks, CA: Sage.

- Webster, D.W., & Vernick, J.S. (2013). *Reducing gun violence in America: Informing policy with evidence and analysis*. Baltimore, MD: Johns Hopkins University Press
- Weinbaum, Z., Stratton, T. L., Chavez, G., Motylewski-Link, C., Barrera, N., & Courtney, J. G. (2001). Female victims of intimate partner physical domestic violence (IPP-DV), California 1998. *American Journal of Preventive Medicine*, 2, 313-319. doi:10.1016/S0749-3797(01)00363-4
- Weitkunat, R., Pottgiesser, C., Meyer, N., Crispin, A., Fischer, R., Schotten, K., & ... Uberla, K. (2003). Perceived risk of bovine spongiform encephalopathy and dietary behavior. *Journal of Health Psychology*, 8, 373-381.
- Whethers, G., & Denham, M. T. (2014). *Domestic violence fatality review data report and summation*. Prepared by and compiled for the Office of the Attorney, General Office of Victims Advocacy. Retrieved from:
http://ag.ky.gov/pdf_news/DVFR%20book.pdf
- Williams, T.R. (1967). *Field methods in the study of culture*. New York: Holt, Rinehart, and Winston.
- Wintemute, G.J. (2013). Comprehensive background checks for firearm sales: Evidence from gun shows. In Webster, D.W., & Vernick, J.S. (eds). *Reducing Gun Violence in America: Informing Policy with Evidence and Analysis* (p.95-107). Baltimore, MD: Johns Hopkins University Press.
- Wilson, M., & Daly, M. (1993). Spousal homicide risk and estrangement. *Violence and Victims*, 8, 3-16.

- Wilson, M., Johnson, H., & Daly, M. (1995). Lethal and nonlethal violence against wives. *Canadian Journal of Criminology*, 37, 331.
- Wisner, C.L., Gilmer, T.P., Saltzman, L.E., & Zink, T.M. (1999). Intimate partner violence against women: do victims cost health plans more? *Journal of Family Practice*, 48, 439–443.
- World Health Organization. (2001). *Key informant survey information*. Retrieved from: http://www.who.int/responsiveness/surveys/KIS_2001_Methodology.pdf
- Zeoli, A. M., Malinski, R., & Turchan, B. (2016). Risks and targeted interventions: Firearms in intimate partner violence. *Epidemiologic Reviews*, 38, 125-139. doi:10.1093/epirev/mxv007
- Zeoli, A. M., & Webster, D. W. (2010). Effects of domestic violence policies, alcohol taxes and police staffing levels on intimate partner homicide in large US cities. *Injury Prevention*, 16, 90-95. doi:10.1136/ip.2009.024620

Kellie Rose Lynch

Curriculum Vitae

Education

M.Sc. Experimental Social Psychology
University of Kentucky, Lexington, KY (May 2013)

B.A Major: Psychology (Honors); Minor: English
Memorial University, St. John's, NL, Canada (May 2011)

Research Grants

- **SSHRC Doctoral Research Grant** (May 2014—May 2016)
Social Sciences and Humanities Research Council of Canada, Ottawa ON
 - *Sexual Reciprocity Norms and Group Attitudes in the Acceptance of Dating Violence* (\$40,000)
 - Principal Investigator

- **Mary Byron Scholar Fellowship** (April 2014)
Office for Policy Studies on Violence against Women, University of Kentucky
 - *Understanding Rape Victim Blame: Deservedness, Expectations, and Want for Sex* (\$3,500)
 - Principal Investigator

- **APLS Grant-in-Aid** (February 2014)
American Psychology-Law Society
 - *Sexual Expectations and Deservingness for Sex: The Sexual Social Exchange Theory and College Rape* (\$720)
 - Principal Investigator

- **Behavioral Science Pilot Research Project Grant** (February 2014)
Department of Behavioral Science, University of Kentucky, Lexington, KY
 - *Development of a Survey to Examine Procedures and Barriers to Implementing and Enforcing Domestic Violence Gun Laws in Kentucky* (\$1,700)
 - Principal Investigator

- **SSHRC Joseph-Armand Bombardier Master's Award** (May 2011)
Social Sciences and Humanities Research Council of Canada, Ottawa ON
 - *Measuring Canadian Caution Comprehension in a Mock Crime Paradigm* (\$17,500)
 - Principal Investigator

Awards

- **College of Arts and Sciences Outstanding Teaching Assistant Award** (April 2015)
University of Kentucky, Lexington, KY
 - Award designated by the College of Arts and Sciences for achievement as a teaching assistant
 - **University of Kentucky Department of Psychology Teaching Assistant Award** (April 2015)
University of Kentucky Department of Psychology, Lexington, KY
 - Annual Department of Psychology award given to one teaching assistant for excellence in teaching
 - **University of Kentucky Graduate Student Incentive Program Award** (June 2014)
University of Kentucky Graduate School, Lexington, KY
 - Monetary award for obtaining a nationally competitive fellowship (\$1,000)
 - **Memorial University Psychology Society Award** (April 2011)
Memorial University of Newfoundland, St. John's, NL
 - Undergraduate award for involvement in the community, research, and a high GPA (\$500)
 - **NSERC URSA Research Award** (May 2010—August 2010)
Natural Sciences and Engineering Research Council of Canada, Ottawa, ON
 - National-level research award for excellence in undergraduate scholarly potential (\$5,000)
 - **Bachelor of Arts Deans List** (September 2009—September 2011)
Memorial University of Newfoundland, St. John's, NL
 - University award for a maintain a high GPA
 - **Millennium Excellence Award** (September 2009—September 2010)
Millennium Excellence, Montreal, QB
 - National scholarship awarded for involvement in the community and a high GPA (\$18,000)
 - **Sobeys Scholarship** (September 2007— September 2010)
Sobeys Inc., Dartmouth, NS
 - Scholarship awarded to a student who worked at a Sobeys store with a high GPA (\$4,000)
 - **Memorial University Entrance Scholarship** (September 2007)
Memorial University of Newfoundland, St. John's, NL
 - An entrance scholarship based on a student's GPA (\$4,000)
-

Publications

Peer-Reviewed Manuscripts

- Lynch, K. R.**, Jewell, J.A., Golding, J. M., & Kembel, H.B.* (in press). Associations between relationship sexual behavior norm beliefs and intimate partner rape judgments: A structural equation model. *Violence Against Women*.
- Lynch, K.R.**, & Logan, T. (2015). “You better say your prayers and get ready”: Guns within the context of intimate partner abuse. *Journal of Interpersonal Violence*. Advance online publication. doi: 10.1177/0886260515613344
- Golding, J.M., Wasarhaley, N.E., **Lynch, K.R.**, Lippert, A. & Magyarics, C.L.* (2015). Improving the credibility of adolescents in child sexual assault trials: The impact of a sexual assault nurse examiner. *Behavioral Sciences and the Law*, 33, 493-507. doi: 10.1002/bsl.2188
- Renzetti, C.M., **Lynch, K.R.**, & DeWall, C.N. (2015). Ambivalent sexism, frequency of alcohol use, and IPV perpetration. *Journal of Interpersonal Violence*. Advanced online publication. doi: 10.1177/0886260515604412
- Lynch, K.R.** & Logan, T. (2015). Police officers’ attitudes and challenges with charging stalking. *Violence and Victims*. Advance online publication. doi: 10.1891/0886-6708
- Magyarics, C. L. *, **Lynch, K.R.**, Golding, J. M., & Lippert, A. (2015). The impact of frequency of behavior and type of contact on judgments involving a criminal stalking case. *Law and Human Behavior*. Advance online publication. <http://dx.doi.org/10.1037/lhb0000151>
- Wasarhaley, N. E., **Lynch, K.R.**, Golding, J.M., & Renzetti, C. M. (2015). The impact of gender stereotypes on courtroom perceptions of lesbian intimate partner violence. *Journal of Interpersonal Violence*. Advance online publication. doi: 10.1177/0886260515586370
- Golding, J. M., **Lynch, K. R.**, & Wasarhaley, N. E. (2015). Impeaching rape victims in criminal court: Does concurrent civil action hurt justice? *Journal of Interpersonal Violence*. Advance online publication. doi: 10.1177/0886260515584342
- Golding, J. M., **Lynch, K. R.**, Wasarhaley, N. E., Keller, P. (2015). Courtroom Perceptions of Child Sexual Assault: The Impact of an Eyewitness. *Criminal Justice & Behavior*, 42, 763-781. doi: 10.1177/0093854814568552

- Lynch, K.R.** & Logan, T. (2015). Risk factors in arrest of rural and urban female victims of intimate partner violence. *Violence and Victims, 30*, 488-501. doi: 10.1891/0886-6708
- Dunlap, E.E., **Lynch, K.R.**, Jewell, J.A., Golding, J.M., & Wasarhaley, N.E. (2014). The role of gender, stalking myth acceptance, and gender role stereotyping on perceptions of intimate partner stalking: A structural equation modelling approach. *Psychology, Crime & Law, 21*, 234-253. doi: 10.1080/1068316X.2014.951648
- Hodell, E.C., Wasarhaley, N.E., **Lynch, K.R.**, & Golding, J.M. (2014). Mock juror gender biases and perceptions of self-defense claims in intimate partner homicide. *Journal of Family Violence, 29*, 495-506. doi: 10.1007/s10896-014-9609-2
- Lynch, K.R.**, Golding, J. M., & Wasarhaley, N.E. (2014). Juror Perceptions of repressed sexual abuse in an adult parricide case. *Journal of American Forensic Psychology, 32*, 1-20.
- Lynch, K.R.**, Wasarhaley, N.E., Golding, J.M., & Simcic, T. A. (2013). Who bought the drinks? Juror perceptions of intoxication in a rape trial. *Journal of Interpersonal Violence, 28*, 3205-3222. doi:10.1177/0886260513496900
- Wasarhaley, N. E., Golding, J.M., **Lynch, K.R.**, & Keller, P. S. (2012). The impact of abuse allegations in perceiving patricide in the courtroom. *Psychology, Crime, and Law, 19*, 783-799. doi: 10.1080/1068316X.2012.684056

*Co-mentored undergraduate student

Book Chapters

- Lynch, K.R.**, Love, T., & Renzetti, C.M. (in press). *Gun violence in the U.S.: Prevalence, consequences, and policy implications*. In G. Muschert (Ed.), *Social Justice*. Bristol, UK: Policy Press.
- DeWall, C. N., **Lynch, K. R.**, & Renzetti, C. M. (in press). *Love and hurt: Why we behave aggressively against loved ones*. In B. J. Bushman (Ed.), *Aggression and Violence*. New York: Taylor & Francis.

Program Evaluation & Technical Reports

- Logan, T., & **Lynch, K.R.** (2014). *Domestic Violence Fatality Special Report: Kentucky 2010 Homicides*. Prepared for the Statewide Fatality Review Committee. Lexington, KY: University of Kentucky, Center on Drug and Alcohol Research. Available online: http://ag.ky.gov/pdf_news/DVFR%20book.pdf

Lynch, K.R., & Logan, T. (2013). *Second chance re-entry evaluation report*. Prepared for the Kentucky Domestic Violence Association. Lexington, KY: University of Kentucky, Center on Drug and Alcohol Research

In Prep Work (submitted and in preparation)

Lynch, K. R., Golding, J. M., Jewell, J.A., Lippert, A., & Wasarhaley, N.E. (under review). Perceptions of Intimate Partner Rape in Court: Is it “Real” Rape?

Lynch, K.R., Jewell, J.A., Wasarhaley, N.E., & Golding, J.M. (under review). Gender differences in the paths to blame in date rape: An investigation of defendant desirability, perceived victim want and defendant deservedness for sex.

Wasarhaley, N.E., **Lynch, K.R.**, Golding, J.M., & Jewell, J.A. (under review). Stalking in the courtroom: A mock jury study with deliberation.

Lippert, A., Golding, J.M., **Lynch, K.R.**, Haak, E., & Magayrics, C.M. (under review). Civil remedies for rape victims: Justice or Greed?

Lynch, K.R., & Logan, T. (in prep). Issues with implementing local gun confiscation policies in the absence of statewide laws.

Lynch, K.R., Wasarhaley, Jewell, J.A., & N.E., Golding, J.M. (in prep). The relationship between in-group identification with Greek life and rape-supportive beliefs in college students.

Lynch, K.R., Renzetti, C.M., & DeWall, C.N. (in prep). Examining the relationship between adult attachment and previous victimization in the perpetration of physical intimate partner violence.

Lynch, K.R., Jewell, J.A., Wasarhaley, N.E., & Golding, J.M. (in prep). Evaluating the strength of the prosecution’s case for rape in criminal court.

Lynch, K.R., Renzetti, C.M., & DeWall, C.N. (in prep). Religiosity and previous victimization: Gender differences in intimate partner violence perpetration.

Wasarhaley, N.E., & **Lynch, K.R.** (in prep). Is she a “real” victim? The role of victim typicality in judgments involving lesbian intimate partner violence: A structural equation model.

Presentations: Talks

Lynch, K.R. (2016, November). *"They won't lay down their bible or their guns": Implementing domestic violence gun policies in a rural state with no domestic violence gun laws.* Presentation to be given at the 2016 American Society of Criminology Meeting, New Orleans, LA.

Lynch, K.R., & T, Logan. (2015, November). *Intimate partner gun violence in Kentucky: Ready to pull the trigger on protective strategies?* The 2015 American Society of Criminology Meeting, Washington, DC.

Renzetti, C.M., **Lynch, K.R., & DeWall, C.N.** (2015, November). *Ambivalent sexism, frequency of alcohol use, and intimate partner violence perpetration.* The 2015 American Society of Criminology Meeting, Washington, DC.

Lynch, K.R. (April, 2015). *Intimate partner gun violence: protections, policies, and the problem.* The University of Kentucky Social Psychology Brown Bag Series, Lexington, KY.

Logan, T., & **Lynch, K.R.** (2014, October). *Domestic violence fatality special report: Kentucky 2010 homicides.* The Attorney General's Statewide Fatality Review Committee, Frankfort, KY.

Wasarhaley, N. E., **Lynch, K.R.,** Cook, S. E., & Golding, J. G. (2014, March). *Does she look like a rape victim? The effect of anti-fat attitudes and rape myth acceptance on juror perceptions of obese victims.* The Annual Conference of the American Psychology-Law Society, New Orleans, LA.

Lynch, K.R., Golding, J. G., & Wasarhaley, N. E. (2014, March). *Sexual expectations and deservingness for sex: The application of sexual social exchange theory to perceptions of date rape.* The 2014 Annual Conference of the American Psychology-Law Society, New Orleans, LA.

Lynch, K.R. (2014, March). *Victim blaming and social norm beliefs about date rape.* The University of Kentucky Department of Psychology Social Psychology Brown Bag Series, Lexington, KY.

Lynch, K.R. (February, 2013). *Great expectations: Expectations for sex and victim blaming in date rape.* The University of Kentucky Department of Psychology Social Psychology Brown Bag Series, Lexington, KY.

Presentations: Posters

Lynch, K.R., Jewell, J.A., Golding, J.M., & Wasarhaley, N.E. (2015, May). *A structural equation model of the associations between beliefs about sexual behavior in relationships and judgments to charge intimate partner rape.* The 27th Association for Psychological Science Annual Convention, New York, NY.

- Wasarhaley, N. E., Golding, J. M. & **Lynch, K.R.** (2015, May). *The interactive effect of victim and defendant stereotypicality on mock jurors' guilty verdicts in a lesbian intimate partner violence case*. The 27th Association for Psychological Science Annual Convention, New York, NY.
- Golding, J. M., **Lynch, K. R.**, Rippe, T., Magyarics, C.L., & Wasarhaley, N. E. (2015, March). *The perception of rape in civil court*. The American Psychology-Law Society Conference, San Diego, CA.
- Magyarics, C. L., **Lynch, K. R.**, Golding, J. M., & Lippert, A. (2015, March). *The impact of the type and frequency of stalking in the courtroom*. The annual meeting for the American Psychology-Law Society, San Diego, CA.
- Wasarhaley, N. E., & **Lynch, K.R.** (2015, February). *The effect of victim weight and stereotypicality on mock juror perceptions of date rape*. The 2015 Annual Meeting of The Society for Personality and Social Psychology, Social Psychology and Law Pre-Conference, Long Beach, CA.
- Wasarhaley, N. E., Golding, J. M., **Lynch, K. R.**, & Belville, J. N. (2014, February). *Impeaching rape victims in criminal court: Does concurrent civil action hurt justice?* The 15th Annual Meeting of the Society for Personality and Social Psychology, Social Psychology and Law Pre-Conference, Austin, TX.
- Wasarhaley, N. E., Golding, J. G., & **Lynch, K. R.** (2013, March). *Anti-fat attitudes and motivation to respond without prejudice in court*. The 2013 Annual Conference of the American Psychology-Law Society, Portland, OR.
- Lynch, K. R.**, Golding, J. G., & Wasarhaley, N. E. (2013, March). *The effect of repressed abuse in an adult parricide case: Timing matters*. The 2013 Annual Conference of the American Psychology-Law Society, Portland, OR.
- Lynch, K.R.**, Wasarhaley N. E., & Golding, J.M. (2012, July). *Perceptions of marital rape and physical assault in the courtroom*. The International Family Violence and Child Victimization Research Conference, Portsmouth, New Hampshire.
- Lynch, K. R.**, Golding, J.M., Wasarhaley, N.E., & Simcic, T.A. (2012, March). *Juror perception of intoxication and defendant responsibility as factors in a rape trial*. The Annual American Psychology-Law Society Conference San Juan, Puerto Rico.
- Wasarhaley, N. E., Golding, J. M., Dunlap, E. E., & **Lynch, K. R.** (2012, January). *An investigation of attributions associated with gender differences in mock jury deliberations of stalking*. The 13th Annual Meeting of The Society for Personality and Social Psychology, Social Psychology and Law Pre-Conference, San Diego, CA.
- Lynch, K.R.**, Eastwood, J., Snook, B. (June 2011) *Comprehension of the right-to-legal-counsel caution in a mock investigative interview*. The 2nd North American Correctional and Criminal Justice Conference, Canadian Psychological Association: Criminal Justice Psychology Section, Toronto, ON.

Employment Experience

Center for Research on Violence Against Women Senior Research Assistant
University of Kentucky, Lexington, KY (July 2015—Present)

Teaching Assistant
University of Kentucky, Lexington, KY (August 2011—May 2015)

Program Evaluator
Kentucky Domestic Violence Association, Lexington, KY (May 2012—October 2013)

Youth Activities Coordinator
The City of Mount Pearl, NL (June 2008— August 2011)

Research Experience

Graduate Student Researcher (Center for Research on Violence Against Women)
University of Kentucky (May 2015—Present)
Supervisor: Dr. Diane Follingstad

Graduate Student Researcher (Center for Drug and Alcohol Research)
University of Kentucky, KY (January 2012—Present)
Supervisor: Dr. TK Logan

Graduate Student Researcher (Psychology and Law Laboratory)
University of Kentucky, KY (August 2011—Present)
Supervisor: Dr. Jonathan Golding

NSERC Undergraduate Student Researcher (Cognitive Aging and Memory Lab)
Memorial University, NL (May 2010—August 2010)
Supervisor: Dr. Aimee Surprenant

Research Assistant (Bounded Rationality and Law Lab)
Memorial University, NL (Sept 2009—April 2011)
Supervisor: Dr. Brent Snook

Research Assistant (Memorial Counselling Centre)
Memorial University, NL (Sept 2009—April 2010)
Supervisor: Dr. Mike Doyle

Teaching and Mentoring Experience

Teaching Assistant

University of Kentucky, Lexington, KY (August 2011—May 2015)

- PSY 100 *Introduction to Psychology*
- PSY 216 *Applications of Statistics in Psychology*
- PSY 440 *Research in Social Psychology*

Supervisor or Co-Supervisor of Undergraduate Students

- Hannah Kembel (April 2014—April 2015)
 - Amber Marcum (August 2014—December 2014)
 - Casey Magayrics (January 2014—August 2014)
 - Brent Honaker (January 2014—June 2014)
 - Todja Mitchell (January 2014—May 2014)
 - Elizabeth Anderson (September 2011—May 2012)
-

Academic Journal Peer Review Activity

Criminal Justice & Behavior

Journal of Basic and Applied Social Psychology

Journal of Interpersonal Violence

Violence Against Women

Sage Open

Professional Affiliations

American Psychology-Law Society

American Society of Criminology

Association for Psychological Science

Kentucky Psychological Association

Society for Personality and Social Psychology

Seminars and Training

Human Subjects Research Training (August 2011, 2014)

Collaborative Institutional Training Initiative

Protecting Human Research Participants Course (May 2010)

National Institute of Health Office of Extramural Research

Memorial Leadership Forum (January 2009, 2010)

Memorial University of Newfoundland, St. John's, NL, Canada

Millennium Excellence Atlantic Conference (November 2009)

Millennium Excellence, Charlottetown, PEI, Canada

Selected Community and Academic Service

- **UK Graduate Student Psychology Advocacy Group Justice System Chair** (January 2014—Present)
 - **University of Kentucky Social Psychology Brown Bag Co-Coordinator** (August 2014—May 2015)
 - **University of Kentucky Graduate School Handbook Committee** (July 2014—September 2015)
 - **Kentucky Statewide Intimate Partner Fatality Review Research Sub-Committee** (June 2014—October 2014)
 - **Science Fair Judge** (December 2013)
 - **Memorial Psychology Society** (Sept 2009—April 2011)
 - **Relay for Life** (February 2010, January 2011)
 - **Memorial University Ambassador Program** (March 2009—September 2010)
 - **Memorial University Fall Orientation** (Sept 2009)
 - **Mount Pearl Frosty Festival Events Committee** (Sept 2007— February 2009)
 - **Mount Peal City Days Events Committee** (May 2007—May 2009)
 - **Arts Works Program** (Sept 2008—Dec 2008)
 - **Habitat for Humanity** (October 2008)
 - **Leadership, Education and Preparation (LEAP)** (October 2008)
 - **Mount Pearl Youth Action Team** (Nov 2006—Sept 2007)
-