

# International journal of police and policing

2017 2(1)

## <Index>

1. The Effect of Fear of CRIME on Perception of Severity of Sexual CRIME  
/ **Cho Je-seong**
2. The Effect of TERRORISM Risk Perception and Agency's Interaction on Police Homeland Security Preparedness  
/ **Back Sin-chul, Sung Yong-eun, LaPrade Jennifer**
3. Consideration of Correlation between Periodic Patterns of Economic Crisis and Success of Korean Film with CRIME Subjects: Putting the KOREAN Films in 1998-2016 to the Center  
/ **Han Young-hyeon**
4. A Study on Utilizing IoT for Preventing Approach Restraining Order Violation  
/ **Lee Jae-young**
5. A Study on the Improvement of Digital Forensic Utilization for Cyber CRIMES  
/ **Oh Sei-youen**
6. The Relationship between Social Capital and Citizen Satisfaction with POLICE: A Comparison between South Korean and American Citizens  
/ **Park Sun-young, Park In-sun**
7. Study of Major Issues of Introduction of KOREAN Clare's LAW and of Improvement Measures for the Public Security Policies  
/ **Shin Hyun-joo**

# J-INSTITUTE

Publication state: Japan  
ISSN: 2423-8279

Publisher: J-INSTITUTE  
Website: <http://www.j-institute.jp>

Corresponding author  
E-mail: [tearlife@naver.com](mailto:tearlife@naver.com)

Peer reviewer  
E-mail: [editor@j-institute.jp](mailto:editor@j-institute.jp)

<http://dx.doi.org/10.22471/police.2017.2.1.01>

© 2017 J-INSTITUTE

## The Effect of Fear of CRIME on Perception of Severity of Sexual CRIME

Cho Je-seong

*Dongguk University, Seoul, Republic of Korea*

### Abstract

*The purpose of this study is to examine how fear of crime influences on awareness of severity to sex offense. By examining the impact of crime perceived safety on the severity of sex offense through statistical testing, the purpose of this study is to determine whether the fear of some parts of sex offense significantly influences the severity of sex offense. In addition, it aims to examine whether Recognition for Police Activity has mediator effect between awareness to severity of sex offense. Based on 1,064 cases of the secondary material through e-mail research and random telephone interview for 1,100 people as study subjects of a customer evaluation group of policing policy of the National police agency excluding 54 cases of missing data, it confirmed the effect that recognition of fear of crime and crime prevention activity affects to severity of sex offense through multiple regression analysis by utilizing IBM SPSS Statistics 21. In addition, Sobel test was conducted to confirm that the mediating variable of the recognition of police activity was partial or complete and to verify the mediator effect. As a result, a group that answered that sex offense should be eradicated for the first was resulted 528 people that is 50.5% of whole answerer, which is 204 people of male and 324 people of female. It was confirmed that all the factors of crime influence on the cognitive variables of crime prevention activities among the fear of crime. The variables affecting to the severity of sexual offense were identified as the fear of sex offense, school violence, and police activity. In conclusion, it was confirmed that the fear of sex offense and school violence has a significant effect on the recognition of severity of sex offense, and the Sobel-test showed that the recognition of the police's crime prevention activity was significant as a parameter between all independent variables and the dependent variables of perception of sex offense severity. It was confirmed that the results of the analysis were different according to the analysis model. However, it was confirmed that the perceived safety of the sex offense and the police's crime prevention activity affects to the recognition of severity to sex offense of the citizen. Therefore, patrol activities and patrolling activities for fear of sex offense, and polices to reduce the number of criminal cases such as police's crime prevention activity seems to be required.*

**[Keywords]** *Participation Policing, Sex Offense, Recognition for Police Activity, Fear of Crime, Crime Prevention Activity.*

## 1. Introduction

Today, as police activity are actively pursued to eradicate crime, the effects and the recognition of citizens' perceptions will be necessary for policy implementation for better police activities. Since the spread of computers and the Internet is widespread in

modern society, everyone knows that access to a lot of information is very high. There will be no exceptions to crime. The news about crime is often exposed to the demand for information, and this phenomenon has a great influence on the recognition and severity of crime for citizens.

Therefore, through researching the recognition and severity of crimes that citizens think, we need to ponder what kind of awareness is given to them, and what policies are needed to improve their perceptions and give them confidence in safety through practical police activities.

Among them, the recognition of citizen, which is related to crime, which is the center of police activities, and police activities and safety related surveys are very important tasks. In fact, the three based tasks of the situation and promotion direction of the policy of police: prevention, scientific, and participation policing, were presented in 2016, and it can be said that there is a close relationship with this research topic in the participation security. Participation policing refers to what related institution, local government, and people try together through policing governance, and the law on the prevention of crime and the promotion of CPTED have been suggested as practical matter[1]. At the time that various crime-based police activities are implemented, understanding the effective safety of citizen and the recognition about the police activities can be an important point in how to set policy for participatory policing.

## 2. Preceding Research

### 2.1. Awareness of the severity of sexual crimes

Targets of sex offense are women, children and adolescents. In recent years, the severity of the sex offense has been heightened as sex offense related to children and juveniles, such as child sexual abuse, have become an issue. The reason why we cannot find the fundamental countermeasures against such sex offenses is because our society focuses on strengthening the punishment and restraining the offenders who have already been arrested[2]. By focusing on non-preventive punishment and suppression of recidivism, sex offense will be able to reach citizens more quickly and seriously through mass media. In the case of sex offense management, various policies such

as exposure of personal affairs, the probation system, and management of a person liable to committing crime by regulation about information collection of a person liable to committing crime are enforced. However, as a result of investigating the recidivism rate, as it is found out that it is highest in the first-time offender and the 9th or more time offender percentages next, it has been shown that the prevention and management of ex-convicted sex offender is very important. It states that it is important to follow-up and protect and especially, prevention policing activity is important for sex offense, and it also indicates that there is an urgent need for policing policies linked to local communities and other institutions. In addition, the police policy linked to the company can expect the achievement. Civil-police governance can be harmonized through application of sex offense alert service[3].

These recognition of sex offense is mainly exposed to citizens through mass media, and the mass media is becoming more and more stimulating articles in this crime case. On the contrary, citizens' recognition of the severity of crime leaves room for improvement through various public relations activities of the police.

### 2.2. A study on the feeling safety

Among various discussions for the eradication of crime, various studies have been conducted on the sense of safety. In order to respond to the safety policy such as life safety policy, the central government and municipal governments are resident-dominant in the mid- to long-term; at the same time, taking a strategy to create a safe community in harmony with private governance will be a new policy demand and response logic[4]. It is because the creation of a safe community is the fastest way to improve the effective safety of the citizen. As a result of this study on the perceived safety, the perceived safety varies according to the residence area and gender; In particular, it was confirmed that factors affecting the safety of sexual abuse were police activity satisfac-

tion and police effort[5]. In the same context, we have confirmed the uneasiness of the people through the study of the policy for the improvement of effective safety of people. And in order to improve the policing policy and to develop the policing policy suitable for relieving anxiety, there was a research result that should concentrate on people's life contact type information provision type public relations[6]. In addition, according to one of the reasons why the level of perceived safety is low is 'lack of efforts to prevent recidivism', citizens are exposed to various information through the media, but it is difficult to know specific policies or achievements[7].

As a result of examining previous studies on the effective safety, the effective safety was still investigated as anxiety to the citizens, it also proposes policies and public relations activities that will act as a policy to prevent and prevent reoccurrence of crime, which directly communicate with the public. Therefore, in this study, if it is confirmed that the perception of police crime activity affects the perception of sexual crime, it can raise the need for publicity for police activities and policy alternatives to communicate with citizens.

### **2.3. Police activities to eradicate crime**

In the advanced studies on crime eradication activities, there was a research that it needs solution plan about whether current domestic violence education is appropriate by pointing out the inadequate knowledge of on-the-spot police officers about domestic violence[8]. It is important for the police to understand the crime of domestic violence. In the context of the above, it can be said that police education is also a very important factor in the close relationship between police and citizens. Also, it is the important to form a national consensus to prevent issuance in the media when sex offenses occur[9]. School violence related police activities are also one of the most frequent correlations between parents and police groups, and have been pointed out as strengthening cooperation among school,

family, and local community related organizations[10].

Recently, the social desire for the increase of citizens' desire for security and the eradication of crime has been collected, and it is very important to diagnose the actual condition of local security through the current status of crime in the region[11]. However, it appeared that most of the residents' recognition of the crime eradication policy promoted by the police was about 50%[12]. In the analysis of the most threatening factors, the response that is the occurrence of crime percentages about 38%, which is the highest rate[13]. Therefore, social aspiration for crime eradication is not ending, but actual and visible police activities and a reduction in the occurrence of crime will be needed to improve citizens' recognition.

## **3. Research Method**

This study utilized secondary data from the Institute for Police Policy. A total of 1,100 respondents were surveyed by the National People and the National Police Policy Customer Evaluation Team. The survey method was conducted by e-mail (Police Policy Customer Evaluation Team) and telephone interview. The survey was conducted by 16 provincial police departments in order to consider local and cultural characteristics.

The survey was conducted from July 1, 2014 to July 8, 2014, for eight days, and 1,046 cases were utilized except for 54 cases that were rejected or has missing value because of the nature of the telephone interview survey.

## **4. Results**

As measured in Model 1 among the four independent variables of fear of crime, it was found that the fear of sex offense and school violence had a significant effect on the recognition of sex offense severity. In Model 2 that added a parameter of the police crime activity variable, the fear of sex offense was still found to be significant, and

the cognitive variables of police activities were also found to be significant. However, as a result of confirming the non-standardized coefficients of the safety measure of sex offense in Model 1 and Model 2, we have confirmed that the parameters are

partly mediated because that figure has not decreased. Through this analysis, the Sobel test was used to verify that the mediator effects of the police's crime eradication activities that were utilized as parameter were significant.

**Table 1.** Research model verification result.

Division		B	SE	B
Model 1	Safety of sex crimes	.388	.059	.239***
	Safety of feeling about domestic violence	-.080	.059	-.047
	Safety of school violence	-.121	.056	-.076*
Model 2	Safety of sex crimes	.689	.058	.423***
	Safety of feeling about domestic violence	.069	.055	.041
	Safety of school violence	.060	.053	.037
	Awareness of police activities for the elimination of crime	-.567	.043	-.517***
R2			.209	
Adjusted R2			.205	
F			45.434***(df=5)	

Note: \*\*\*p<.001, \*\*p<.01, \*p<.05

#### 4.1. Mediating effect verification

In order to verify the mediator effect, first, we examined whether the fear factor

consisting of independent variables had a significant effect on the parameters. As a result, we found very significant results in all areas.

**Table 2.** The effect of citizens' feeling of security on police activities for the elimination fo crime.

Division	B	SE	β
Safety of sex crimes	.531	.042	.357***
Safety of feeling about domestic violence	.263	.043	.170***
Safety of school violence	.319	.041	.219***
R2	.402		
Adjusted R2	.399		
F	144.412***(df=4)		

Note: \*\*\*p<.001, \*\*p<.01, \*p<.05

As a result of checking Baron & Kenny's three-step process for mediating effect validation, independent variable has a significant effect on parameters, and the variables that have a significant effect on the dependent variables among the independent variables were confirmed as safety variables for sex offense. As a result of regression analysis of both final parameter and independent variables, It was confirmed that the parameter,

the police's crime eradication activity, was partly mediated. The Baron & Kenny method has a problem of low power of the test[14]. Therefore, we examined the mediating effect using the Sobel test.

**Table 3.** Sobel test.

Sobel verification procedure	B	SE
------------------------------	---	----

Safety of sex crimes → Awareness of police activities for the elimination of crime	.531	.042
Awareness of police activities for the elimination of crime → Awareness of sex crime severity	-.567	.043

Z = -9.126\*\*\*

Note: \*\*\*p<.001, \*\*p<.01, \*p<.05

The result that confirmed that non-standardization factor and the standard error of the effect of the independent variable on the mediating effect and the result that confirmed that non-standardization coefficients on the effect of mediator effects on dependent variables were substituted into the equation. As a result of Sobel test, we could check that the variable of recognition level about police's crime eradication activities between fear of sex offense and recognition of sex offense severity, which citizen feels, has a significant mediating effect.

## 5. Conclusion

The main purpose is to examine what the recognition of the severity of sex offense in this study and how the factor works. As we have seen in advanced studies, the study result was also confirmed that gender, family type, and others appeared different results in sex offense severity. Especially, it was confirmed that fear of sex offense and school violence among the four areas of safety recognition had a significant effect on recognition of sex offense severity.

What is important is the thing that it has been found that the fact that police activities have been recognized properly to citizens very significantly affect. Although police activities are not completely mediated by the recognition of the severity of sex offenses, it is necessary to examine the policy to lower the fear of crime in the future in this study like advanced research result. In particular, it seems necessary to make it easy to publicize police activities that allow citizen participation and appropriate police activities that are easily accessible such as cooperating with related organizations in police activities.

## 6. References

### 6.1. Journal articles

- [2] Kim HD & Song BH. A Study on the Protection of Child Victims of Sexual Abuse Crimes. *Social Science Research*, 20(3), 243-264 (2013).
- [3] Cho GM. Design of Sex Offender Notify App for Socially Disadvantaged. *The Society of Digital Policy & Management*, 12(2), 301-306 (2014).
- [4] Jeon DU. A Study of Building Resilient Communities and Safety Governance: Focusing on a Strategic Discussion about Implementing the National Safety Project including 4 Major Social Hazard. *Korea Governance Society*, 20(2), 49-71 (2013).
- [5] Youn CG. & Choi ER. The Study of between Police Operation with Eradication of Four Social Evils and Perception of Public Safety: Focusing on Chungchongbukdo. *Korea Police Society*, 53, 107-128 (2015).
- [6] Jung SD. Progress and Future Direction of Eradication of the Four Social Societies. *Korean Home Economics Education Association*, 11, 15-32 (2013).
- [8] Kim SW. The Strategic Response of Police against Domestic Violence Crimes. *Journal of Korean Public Police and Security Studies*, 10(4), 1-23 (2014).
- [9] Song GS & Noh SH. The Study on the Management of Ex-sex Status Problems and Improvements. *Institute of Police Science*, 8(2), 143-173 (2013).
- [10] Choi YS. A Study on Effective Ways of Prevention and Extermination of School Violence. *Korea Municipal Police Studies Review*, 8(3), 89-119 (2014).
- [11] Kim YS. A Study on Elimination of Four Social Evils by Cooperative Policing -Focused on Iksan City and Iksan Police Department-. *Journal of Korean Crime Psychology*, 11(1), 53-76 (2015).
- [12] Cho SH & Jung BS & Kim YH. The Study on Civil Perception about Police 4 Major Social Evils Eradication -With Seoul Citizens as the Center-. *Journal of Social Science Research*, 22(2), 7-30 (2015).

- [13] Jang SS. A Study on Analyzing the Implementation of the Four Social Evils by the Police. *Korea Municipal Police Studies Review*, 6(4), 114-144 (2013).

## 6.2. Books

- [14] Lee IH. Regression Analysis. Hannarae (2016).

## 6.3. Additional references

- [1] National Police Agency. 2016 Major Work Plan (2016).  
[7] Institute of Police Policy. Survey on the Perceived Safety of Police Measures to Eradicate the Four Social Crime (2014).

### Author

**Cho Je-seong** / Dongguk University Ph. D.  
B.A. Baekseok University  
M.A. Dongguk University  
M.A. Dongguk University

### Research field

- The Impact of Internet Media Exposure on the Fear of Crime, *Korean Association for Public Security Administration*, 13(4) (2017).
- The Effect of Self-control and Parent Abuse on Juvenile Delinquency -Focused on Latent Growth Model-, *Korea Association of Criminal Psychology*, 13(2) (2017).

### Major career

- 2015~2016. National Youth Policy Institute, Professional Researcher
- 2017~present. International Society for Police Science, Member

Publication state: Japan  
ISSN: 2423-8279

Publisher: J-INSTITUTE  
Website: <http://www.j-institute.jp>

Corresponding author  
E-mail: [ysung@kdu.ac.kr](mailto:ysung@kdu.ac.kr)

Peer reviewer  
E-mail: [editor@j-institute.jp](mailto:editor@j-institute.jp)

<http://dx.doi.org/10.22471/police.2017.2.1.07>

© 2017 J-INSTITUTE

## The Effect of TERRORISM Risk Perception and Agency's Interaction on Police Homeland Security Preparedness

Back Sin-chul<sup>1</sup>

*Florida International University, Miami, United States*

Sung Yong-eun<sup>2\*</sup>

*Far East University, Eumseong, Republic of Korea*

LaPrade Jennifer<sup>3</sup>

*University of Texas at Dallas, Dallas, United States*

### Abstract

Since 9/11, terrorism has been widely recognized as a significant political and social problem, with countries all over the world increasing their counterterrorism efforts. In the United States, the Department of Homeland Security (DHS) was created in 2002 to consolidate 22 federal agencies into one massive department focused on keeping the country safe, largely through antiterrorism and counterterrorism efforts. DHS also coordinates efforts on the state, county, and local levels to enhance police terrorism preparedness, since local law enforcement will likely be first responders in the event of a terrorist attack. In fact, in 2016, DHS allocated \$1.6 billion in grant funding to prepare state and local law enforcement to prevent and respond to such attacks as part of their "National Preparedness and Resilience" priorities.

Most of the local agencies in this initiative are smaller law enforcement agencies with 1-25 full-time employees. What is the level of terrorism preparedness of these small agencies and what factors influence that level of preparedness? Recent research has explored terrorism's etiology and law enforcement's preparedness on its risk. Some argue that police risk perceptions or police interactions with a larger agency influence the level of homeland security preparedness. However, there is a lack of empirical research on the determinants of police homeland security preparedness. The present study will empirically analyze the effect of police terrorism risk perceptions and police interactions on the level of police homeland security preparedness.

Contingency theory is used as an explanatory framework to understand risk perception, organizational behavior, and preparedness. To address gaps in the literature regarding homeland security policing, the present study simultaneously tests hypotheses derived from contingency theory, namely, whether police terrorism risk perceptions effectively influence the level of police homeland security preparedness and whether police agency's interactions with a larger agency effectively influence the level of police homeland security preparedness.

This study uses data from a national survey of 350 small municipal law enforcement agencies from March 2011 to June 2011 in the United States. A multinomial logistic regression analysis revealed that police terrorism risk perceptions and frequent interactions with a larger agency are positively associated with the level of homeland security preparedness in small law enforcement agencies in the United States. In other words, the primary findings from this study indicate that police agencies with higher levels of perceived terrorism risk and interactions with a larger agency are more likely to enhance their preparedness for future terrorism and cyber terrorism incidents. The contributions, limitations and suggestions for the future study were discussed in discussions and conclusion.

**[Keywords]** *Terrorism Risk Perception, Interaction, Contingency Theory Homeland Security Preparedness, Multinomial Logistic Regression*

## 1. Introduction

Following the tragic events of the 9/11 terrorist attacks, almost every country enforced their preparedness systems against terrorism.



In particular, the U.S. government created a new Cabinet-level department solely for this mission: the Department of Homeland Security (DHS), which merged 22 federal agencies into one large, salient agency with 240,000 employees. In fact, at \$36 billion, the budget of this agency is larger than some countries' whole economy[1]. Homeland security policing focuses on both anti-terrorism and counter-terrorism[2]. Oliver claimed that homeland security had become the new era of policing[2][3]. DHS has enormously invested in terrorism preparedness at the state and local levels, giving \$1.6 billion in grants to these lower levels of government in 2016 alone[4]. Therefore, local law enforcement agencies have also been given significant responsibilities and duties in maintaining homeland security against terrorism threats as first responders[5].

Recently, some scholars have begun to debate police homeland security preparedness for terrorism incidents. A review of relevant literature reveals there is a paucity of empirical research on the determinants of police homeland security preparedness, compared to typical types of policing research (e.g., traditional policing, community policing, and problem-oriented policing). The present study seeks to provide an accurate assessment of police homeland security preparedness among local police agencies. More specifically, the purpose of this study is to empirically examine the effect of terrorism risk perception and agency's interactions on police homeland security preparedness regarding terrorism and cyber terrorism. The article will draw upon the contingency theory used by Giblin, Burruss, and Schafer[6], and Haynes and Giblin[7], Roberts and Liedka[8] and Zhao, Ren, and Lovrich[9] to explain the relationships between risk perception and interaction and preparedness. Finally, we use a multinomial logistic regression method in this study to investigate the important questions posed in this study.

## **2. Research on Contingency Theory and Homeland Security Preparedness**

The author used contingency theory as an explanatory framework to understand risk perception, organizational behavior, and preparedness. The theory argues that when law enforcement agencies are "out of fit with their environment, they should change their structure to reshape, fit and appropriately regain performance"[7][10]. In a study of contingency theory, Zhao et al.[9] asserted that a good fit between an organization and its environment over time leads to high-level performance and efficiency, whereas "a poor fit leads to poor performance and inefficient operation"[9][11].

Research on police homeland security preparedness has relied primarily on two hypothesized determinants of differentiation derived from contingency theory, namely, police terrorism risk perceptions and the agency's interactions with larger agencies. Several relevant studies used risk perceptions and interactions as independent variables to predict homeland security preparedness[6][7][12][13]. For example, in their study of homeland security risk and preparedness in police agencies, Haynes and Giblin[7] empirically assessed the risk-preparedness relationship by examining the impact of risk perception. Their findings indicate that subjective risk perception was a significant predictor of preparedness. In their study reexamining small police agency's homeland security practices, Giblin et al[6]. examined whether inter-department interactions contributed to homeland security preparedness in local police agencies. They found that inter-department interactions are necessary to enforce homeland security preparedness. Randol[5][12] investigated the relationship between terrorism prevention activities and terrorism response preparedness. His findings revealed that the more agencies engaged in terrorism prevention activities, the more agencies invest in terrorism response preparedness. Thus, the findings of all these independently conducted studies suggest that risk perceptions and interactions are significant predictors regarding the degree of homeland security preparedness.

The previous empirical literature on police homeland security preparedness has only

partially considered a viable theoretical explanation for how much risk perception and interaction factors impact the level of preparedness. In a broad sense, the present study simultaneously tests hypotheses derived from contingency theory, namely, whether police terrorism risk perceptions effectively influence the level of police homeland security preparedness and whether police agency's interactions with a larger agency effectively influence the level of police homeland security preparedness.

### 3. Methodology

#### 3.1. Data

The data come from a national survey of small municipal police agencies from March 2011 to June 2011 in the United States, which mainly provides indicators of homeland security preparedness, perceived risk of terrorism, police homeland security activities and interactions, and environmental influences[14]. Small law enforcement agencies were defined as employing between 1 – 25 full-time officers and account for approximately 78% of all local agencies. With over 13,000 such agencies in the United States alone, a stratified random sampling technique was used to choose the participating agencies to ensure responses represented diverse cities by population sizes and areas(rural vs. urban) creating a sample size of 810 agencies. It was then discovered 24 of those randomly chosen were no longer in operation, leaving 786 small municipal agencies in the sample.

The chief executive of each agency(e.g., director, commissioner, officer in charge) was requested to participate in the self-report survey asking various questions about topics such as agency interactions, terrorism risk perception, and terrorism preparedness. After four attempts(three by mail and one by phone), 350 agencies, or 44.5% responded to the survey. Agency characteristics of respondents versus non-respondents were analyzed, however, no response bias was found. Furthermore, in 19.1% of responses, an employee other than the agency's chief execu-

tive filled out the survey, however, each respondent is believed to have sufficient knowledge about the agency's operations in order to accurately answer the survey.

#### 3.2. Measures

**Dependent variable.** Two dependent variable items – expertise level and preparation level – were respectively used to more specifically measure the level of homeland security preparedness. Both dependent variable items are coded(1 = inadequate, 2 = adequate, 3 = excellent). The first dependent variable, the expertise level, was measured by asking respondents, “How would you rate your own agency's expertise about responding to homeland security-related incidents?” The second dependent variable, the preparation level, was measured by asking respondents, “How would you rate your own agency's level of preparation for large-scale incidents?”

**Independent variables.** The researcher posits that the police-perceived terrorism risk and police interaction will differentiate the levels of police homeland security preparedness. Thus, the perceived terrorism risk and police interaction were measured as the independent variables. A series of factor analyses were employed to reduce the number of items to a risk perception factor and an interaction factor without significant losses[7][15][16].

Similar to Haynes and Giblin's research[7], in the present study, six terrorism-related homeland security incident items (likelihood of a chemical, biological, radiological, conventional explosive, cyber-terrorism, and military weapon) were selected. And these items were factor analyzed, producing a single perceived risk component(Cronbach's Alpha reliability test .895). Respondents were asked, “How would you rate the likelihood of the following types of terrorism-related homeland security incidents occurring within your jurisdiction in the next five years?” Also, ten items of the agency's interactions with a larger agency were factor analyzed, producing a single interaction component(Cronbach's Alpha reliability test .904). Respondents were asked: “How often are you in contact with members of this large agency for sharing crime-related

intelligence?”, “How often are you in contact with members of this large agency for sharing terrorism-related intelligence?”, “How often are you in contact with members of this large agency for participating in joint homeland security training exercises?”, “How often are you in contact with members of this large agency for discussing mutual aid agreements about homeland security matters?”, “How often are you in contact with members of this large agency for discussing equipment sharing related to homeland security prevention, preparedness, response, and recovery?”, “How often are you in contact with members of this large agency for applying for grant funding related to homeland security prevention, preparedness, response, and recovery?”,

“How often are you in contact with members of this large agency for training on issues unrelated to homeland security prevention, preparedness, response, and recovery?”, “How often are you in contact with members of this large agency for discussing crime control strategies?”, “How often are you in contact with members of this large agency for planning for the provision of security for a large event?”, “How often are you in contact with members of this large agency for exchanging information on successful programs or practices?” Descriptive statistics for variables used in the current study are provided in <Table 1>.

**Table 1.** Descriptive statistics.

	N	Minimum	Maximum	Mean	Std. Deviation
Knowledge / Expertise level	347	1	3	2.05	.55
Preparation level	346	1	3	1.87	.55
Terrorism risk perception	344	-1.21	4.31	.00	1.00
Agency’s interaction	339	-.46	7.35	.00	1.00
Valid N (listwise)	328				

### 3.3. Analysis

Multinomial logistic regression is suitable for the analysis of categorical dependent variables. In the present study, the two dependent variables are coded as either 1 if inadequate, 2 if adequate, and 3 if excellent. Thus, this analysis employs multinomial logistic regression. Multinomial logistic regression equations were used to model the associations between covariates (independent variables) and the scale of each form of homeland security preparedness (dependent variable). The category, “inadequate” was the reference category in these analyses.

From the multinomial logistic regression model, <Tables 2> and <Table 3> present parameter estimates for the relationships between risk perception, agency’s interaction, and level of police homeland security preparedness. <Table 2> demonstrates the odds that the level of expertise about responding to homeland security-related incidents being adequate is 70% higher for some police chiefs who are in the higher level of perceived terrorism risk when compared to the level of expertise being inadequate. The odds that the level of expertise being excellent is approximately 112% higher for some police chiefs who are in the higher level of perceived terrorism risk when compared to the level of expertise being inadequate.

Also, the odds that the level of expertise being adequate is 12.5 times greater for some

## 4. Results

police agencies that are frequently interacting with a larger agency, when compared to the level of expertise being inadequate. The odds that the level of expertise being excellent is approximately 13.4 times greater for

some police agencies that are frequently interacting with a larger agency when compared to the level of expertise being inadequate.

**Table 2.** MLR model 1 for risk perception/interaction and expertise level.

Variables		Adequate		Excellent	
		B	Exp(B)	B	Exp(B)
	Terrorism risk perception	.517*	1.676	.756**	2.129
	agency's interaction	2.605*	13.530	2.669*	14.426
	constant	2.711		1.335	
	-2 log likelihood		456.423		456.423

Note: Inadequate is the reference category. \*p<.05. \*\*p<.01. \*\*\*p<.001

<Table 3> illustrates that the level of preparation for large-scale incidents being adequate did not statistically have any significant result for some police chiefs who are in the higher level of perceived terrorism risk, when compared to the level of preparation being inadequate. The odds that the level of preparation for large-scale incidents being excellent is approximately 54% higher for some police chiefs who are in the higher level of perceived terrorism risk when compared to the level of preparation being inadequate.

Also, the odds that the level of preparation for large-scale incidents being adequate is 67% higher for some police agencies that are frequently interacting with a larger agency when compared to the level of preparation being inadequate. The odds that the level of preparation for large-scale incidents being excellent is 123% higher for some police agencies that are frequently interacting with a larger agency when compared to the level of preparation being inadequate.

**Table 3.** MLR model 2 for risk perception/interaction and preparation level.

Variables		Adequate		Excellent	
		B	Exp(B)	B	Exp(B)
	Terrorism risk perception	.103	1.109	.430*	1.538
	agency's interaction	.516*	1.675	.803**	2.231
	constant	1.199		-.897	
	-2 log likelihood		480.883		480.883

Note: Inadequate is the reference category. \*p<.05. \*\*p<.01. \*\*\*p<.001

## 5. Discussion and Conclusion

The present study used contingency theory to examine relationships between risk perception and interaction and terrorism preparedness in a sample of 350 local police agencies. Our findings are similar to those of most previous studies that demonstrated a positive association between perceived terrorism risk and interaction and overall preparedness.

However, this study attempted to more specifically measure the level of homeland security preparedness along with three categorical references: inadequate, adequate, and excellent. Risk perception factor concerning conventional terrorism and cyber terrorism is a significant predictor, which could moderately enhance the level of homeland security preparedness. More importantly, interaction

factors, such as sharing crime and terrorism-related intelligence, participating in homeland security training exercises, discussing equipment sharing, applying for grant funding related to homeland security, is a very significant predictor, which could reinforce the level of homeland security preparedness. In short, the primary findings from this study indicate that police agencies with higher levels of perceived terrorism risk and interactions with a larger agency are more likely to enhance their preparedness for future terrorism and cyber terrorism incidents.

While this research makes important contributions, a few limitations should be noted. Although the current study explored two major elements of counterterrorism preparedness, there are others it could not examine, including homeland security-related training and practices, equipment acquisition, proximity to the larger agencies, and mutual aid agreements with nonpolice agencies. In accordance with it, future research should examine the relationship between other elements of counterterrorism and homeland security preparedness.

In conclusion, the results of this national survey study provide an insightful lens to explain how organizational activities and environmental situations influence the degree of terrorism response preparedness.

## 6. References

### 6.1. Journal articles

- [2] Oliver WM. The Fourth Era of Policing: Homeland Security. *International Review of Law Computers & Technology*, 22(1), 49-62 (2006).
- [3] Ortiz CW & Hendricks NJ & Sugie NF. Policing Terrorism: The Response of Local Police Agencies to Homeland Security Concerns. *Criminal Justice Studies*, 20(2), 91-109 (2007).
- [5] Randol BM. The Organizational Correlates of Terrorism Response Preparedness in Local Police Departments. *Criminal Justice Policy Review*, 23(3), 304-326 (2012).
- [6] GIBLIN MJ & BURRUSS GW & SCHAFFER JA. A Stone's Throw from the Metropolis: Re-examining Small-agency Homeland Security Practices. *Justice Quarterly*, 31(2), 368-393 (2014).
- [7] Haynes MR & GIBLIN MJ. Homeland Security Risk and Preparedness in Police Agencies: The Insignificance of Actual Risk Factors. *Police Quarterly*, 17(1), 30-53 (2014).
- [8] Roberts A & Roberts JM & Liedka RV. Elements of Terrorism Preparedness in Local Police Agencies 2003-2007: Impact of Vulnerability Organizational Characteristics and Contagion in the Post-9 11 Era. *Crime & Delinquency*, 58(5), 720-747 (2012).
- [9] Zhao J & Ren L & Lovrich N. Police Organizational Structures during the 1990s: An Application of Contingency Theory. *Police Quarterly*, 13(2), 209-232 (2010).
- [10] Katz CM & Maguire ER & Roncek DW. The Creation of Specialized Police Gang Units: A Macro-level Analysis of Contingency Social Threat and Resource Dependency Explanations. *An International Journal of Police Strategies & Management*, 25(3), 472-506 (2002).
- [11] Drazin R & Van de Ven AH. Alternative Forms of Fit in Contingency Theory. *Administrative Science Quarterly*, 30(4), 514-539 (1985).
- [12] Randol BM. An Exploratory Analysis of Terrorism Prevention and Response Preparedness Efforts in Municipal Police Departments in the United States: Which Agencies Participate in Terrorism Prevention and Why? *The Police Journal*, 86(2), 158-181 (2013).
- [13] Schaffer JA & Burruss GW & Giblin MJ. Measuring Homeland Security Innovation in Small Municipal Agencies Policing in a Post-9 11 World. *Police Quarterly*, 12(3), 263-288 (2009).
- [15] Engel MS & de Vasconcelos Segundo EH & Zannin PHT. Statistical Analysis of a Combination of Objective and Subjective Environmental Noise Data Using Factor Analysis and Multinomial Logistic Regression. *Stochastic Environmental Research and Risk Assessment*, 28(2), 393-399 (2014).

[16] Monyai S & Lesaoana M & Darikwa T & Nyamugure P. Application of Multinomial Logistic Regression to Educational Factors of the 2009 General Household Survey in South Africa. *Journal of Applied Statistics*, 43(1), 128-139 (2016).

## 6.2. Books

[1] Naim M. Illicit. Anchor Books (2006).

## 6.3. Additional references

[4] Department of Homeland Security. DHS Announces Funding Opportunity for Fiscal Year 2016 Preparedness Grants. February 16 (2016).

[14] <http://www.icpsr.umich.edu/> (2017).

### Lead Author

**Back Sin-chul**/ Florida International University Researcher  
B.S. Northeastern University  
M.S. Bridgewater State University  
Ph.D. Florida International University

#### Research field

- Emotional Literacy Program and Its Effectiveness: Potential Policy Implication in South Korea, *Korean Criminal Psychology Review*, 11(3) (2015).
- Capable Guardianship and Crisis of Identity Theft in the United States: Expanding Cyber-routine Activities Theory, *International Journal of Crisis & Safety*, 2(1) (2017).

#### Major career

- 2007~2008. Korean National Assembly, Legislative Aide
- 2011~2012. Massachusetts State House, Legislative Aide

### Corresponding Author

**Sung Yong-eun** / Far East University Assistant Professor  
B.A. Keimyung University  
M.A. Dongguk University  
Ph.D. Dongguk University  
Rutgers University

#### Research field

- Demographic Variables and Risk Factors in Computer crime: An Empirical Assessment, *Cluster Computing*, 18(4) (2016).
- Effective Response Methods for the Prevention of Cyber terror in South Korea, *Journal of Korea Convergence Security*, 16(2) (2016).

#### Major career

- 2008~2010. John Jay College of Criminal Justice The City University of New York, Researcher
- 2011~2013. Rutgers University, Instructor
- 2014~present. Far East University, Assistant Professor

### Co-Author

**LaPrade Jennifer**/ University of Texas at Dallas Researcher  
B.A. University of Texas at Dallas  
M.S. University of Texas at Dallas  
Ph.D. University of Texas at Dallas

#### Research field

- The Effect of Terrorism Risk Perception and Agency's Interaction on Police Homeland Security Preparedness, *International Journal of Police and Policing*, 2(1) (2017).

#### Major career

- 2013~present. The University of Texas at Dallas, Doctoral Student and Teaching Assistant
- 2015~present. Brookhaven College, Adjunct Professor of Government

Publication state: Japan  
ISSN: 2423-8279

Publisher: J-INSTITUTE  
Website: <http://www.j-institute.jp>

Corresponding author  
E-mail: [bsabm@hanmail.net](mailto:bsabm@hanmail.net)

Peer reviewer  
E-mail: [editor@j-institute.jp](mailto:editor@j-institute.jp)

<http://dx.doi.org/10.22471/police.2017.2.1.14>

© 2017 J-INSTITUTE

## Consideration of Correlation between Periodic Patterns of Economic Crisis and Success of Korean Film with CRIME Subjects: Putting the KOREAN Films in 1998-2016 to the Center

Han Young-hyeon

*Semyung University, Jecheon, Republic of Korea*

### Abstract

*This research has been devised to observe an correlation between the degrees of successes of Korean films and social crime trends that occurred in between 1998 and 2016, the era of economic crisis. For the reason, having that the increasing crime rates since the IMF economic crisis and 2008 sub-prime mortgage intensified the structural instability of Korean society in consideration, the patterns dealing with crimes in successful typical Korean movies have been analyzed and the correlation between the trends of crime films which were accepted by the public and the patterns of crimes in realities has been concerned. Two films, <Memories of Murder> and <Another Public Enemy> of the Top 20 successful films between 1998 and 2007, describes the 'psychopath' as an 'invisible enemy' rather than violent crimes such as rape, murder and robbery those days, thus, confirmed the intensive interests of the public to 'psychopath'. Furthermore, the two films are positioned at the lower range of the Top 20 successful films, hence, it is identifiable that crime films faces comparatively stronger difficulties in drawing the continuous interests of the public.*

*Crime films among the Top 20 successful films between 2008 and 2016 were <Veteran> and <A Violent Prosecutor>. Both reenacted an 'authoritative' corruption that is not closely relevant to the increasing 'property crimes' those days, in association with 'psychopathic' criminals. Therefore, it was deducible that there is little correlation between the social crime trends and the successes of Korean films at the era of economic crisis.*

**[Keywords]** Policing, Social Crime, Korean Film, The Public, Psychopath, Economic Crisis

### 1. Introduction

The purpose of this paper is to analyze Starting from the 1998 IMF Economic Crisis, the 2008 Global Sub-prime Mortgage aggravated the structural instability of Korean society and intensified the level of social crimes compared to the past. "In 1998 when the economic crisis has been officially intensified, the crime rate was higher than other years(1.7% in 1995, 6.8% in 1996, 6.3% in 1997 and 11.2% in 1998)"[1], "Property crime occurrence frequency, which has been continuously, but gradually, increasing till 2007, presented a dramatic increase in 2008 and 2009(7.16% in 2008 and 11.65% in 2009) at

the days of Sub-prime Mortgage, compared to other years"[1]. However, as social crimes increases and be intensified, claims such as - "It is impossible to assume the increase in crimes is not related to the development of mass media as well as to changes such industrialization and urbanization"[2]. - arise. It is insisted that, 'The increasing condition of crimes' should be synthetically comprehended and analyzed from the both views of social phenomenons including 'economic crisis' and 'mass media', delivering such issues, Especially, the subject which this research is interested in is the patterns of crimes dealt with in 'films', one of the most representative

media, and its impact on the public. Considering the IMF currency crisis that intensified the structural instability in Korean society and the Global Sub-prime Mortgage that increased crime ratio in societies, this research is trying to discuss a correlation between methods dealing with crimes in real world and patterns of crime movies that are accepted by the public by analyzing the patterns of crimes managed in typical box-office Korean films. Hereby, inference of patterns and directions of public acceptance upon social crimes which increased during the economic crisis periods.

## 2. Related Study

There is no precedent study upon correlation between an increase in crime rate and its patterns driving from an economic crisis and box-office Korean movies that involved crimes. Various patterns and meanings accommodated in 'crime movies' are generally managed in the film industry, rather focusing on cinematic significances than the phenomena of 'crimes' itself. Meanwhile, an approach dealing with the patterns of crimes depicted in Korean films as follows. Jae-hoon Jung analyzes how crimes, depicted in two Korean films published after 2010, are dealing with the function of Civilian Protection in the modern state systems[3]. Meanwhile, Im Ho Bae and Min Hyung Dong respectively selected films and analyzed how the 'media', that is, 'mass media' impacts on the public. Im Ho Bae and Min Hyung Dong focused their analysis respectively on the case which a crime from the mass media is reflected on the movie[2], and the case which describes the

influences on copycat crimes given by media. As shown in the above studies, the relationship between 'crimes' and 'films' is limited to the relationship between crimes as social phenomena and cinematic reenactment. However, the public recognition of 'crimes' is closely related to the preference of 'crime films.' Based on such circumstances, this study would observe the public preferences of films that reflects 'crimes' in consideration of 'success of films', and accordingly, would estimate the public recognitions and directions upon patterns of 'crimes'.

## 3. Research Method and Analysis of Current Conditions

To proceed this study, above all, the database provided from Korean Film Council has been utilized. In addition, for differentiation of economic crisis periods, division into two periods of the IMF currency crisis of 10 years between 1998 to 2007 and the Global sub-prime mortgage crisis from 2008 to 2016. Teeming with films which had been developed based on crimes and screened, however, to discover the interests and directions of the public upon crimes, only 20 hit films were selected, with their number of audiences considered, and they were compared to the top 20 crime films in terms of contents and the number of audiences. The explored contents and data from such procedures were compared to the patterns of other crimes at the same period as well as to the top 20 crime films since 1998 till 2007, all possible correlations between success of films and patterns of crimes had been analyzed.

**Table. 1.** 1998~2007, top 20 successful film list[4].

Ranking	Movie	Number of spectator	Genre	Year
1	The host	13,019,740	SF	2006
2	King and the clown	12,302,831	Drama	2005
3	TheGukGu: brotherhood of war	11,746,135	War, drama	2004
4	Silmido	11,081,000	War	2003
5	The war	8,426,973	Action, fantasy	2007



6	Welcome to Domakgol	8,008,622	War, drama	2005
7	May 18	7,307,993	Drama	2007
8	Tazza-the hidden card	6,847,777	Drama	2006
9	200 pounds beauty	6,619,498	Melodrama	2006
10	My boss, my hero	6,105,431	Comedy	2006
11	Swisi	5,820,000	Action, drama	1999
12	Marrying the mafia II: gamunui wigi	5,635,266	Comedy	2005
13	Memories of murder	5,255,376	Crime, thriller	2003
14	Malaton	5,148,022	Drama	2005
15	My tutor friend	4,937,573	Comedy	2003
16	Typhoon	4,094,395	Drama, action	2005
17	Sex is zero	4,082,797	Comedy	2002
18	Another public enemy	3,911,356	Drama	2005
19	Hanbando	3,880,308	Drama, action	2006
20	Sympathy for lady vengeance	3,650,000	Thriller	2005

Films which dealt with 'crimes' from above table are <Memories Of Murder>[5] and <Another Public Enemy>[6]. Both describe a psychopathic 'serial killer' and police force chasing the killer. Considering a critic claiming that "prejudiced media or press upon psychopath, which is treated as an extreme danger even among a set of criminals, has a high probability of making the public not only intensively but excessively anxious and afraid of crimes"[7], it is assumable that the anxiety and the fear of the public toward 'psychopath' had worked as the driving force to lead the 'public interest' to the films to a 'successful hit', through the success of the two films.

Despite of that mass unemployment and wealth disparity brought by the IMF Economic crisis induced increases in rubbery,

murder and rape[8], the films which the public were interested in presented a tendency to reenact specific crimes such as 'psychopath' or 'serial killer'. Thus, it was likely to be estimated that the characteristics and distinctiveness of the specific crimes, rather than the patterns of actual crimes in real societies, attracted the public interest. In addition, crime films consist of the 10% of the top 20 film list, and such circumstance signifies that crimes have continuously been failing to draw the constant public opinions toward crimes. The two films are dealing with the topic, punishing the invisible 'social evil' and realizing 'justice', hence, are used as the means to psychologically console the anxiety and the fear of the public upon their societies, which originated from the economic crisis.

**Table. 2.** 2008~2016, top 20 successful film list[5].

Ranking	Movie	Number of spectator	Genre	Year
1	ROARING CURRENTS	17,613,682	Historical drama	2014
2	Ode to my father	14,245,998	Drama	2014

3	Veteran	13,395,400	Action, crime	2015
4	The thieves	12,983,330	Action	2012
5	Miracle in cell No.7	12,811,206	Comedy	2013
6	Assassination	12,705,700	Action, drama	2015
7	Masquerade	12,319,542	Historical drama	2012
8	TRAIN TO BUSAN	11,565,078	Action, thriller	2016
9	Haeundae	11,453,338	Action, drama	2009
10	The attorney	11,372,451	Drama	2013
11	A violent prosecutor	9,699,092	Crime, comedy	2016
12	The face reader	9,134,586	Historical drama	2013
13	Snowpiercer	8,914,845	SF	2013
14	Miss granny	8,656,397	Drama	2014
15	The pirates	8,646,758	Adventure	2014
16	Run-off	8,487,894	Action, drama	2009
17	Speed scandal	8,245,523	Comedy	2008
18	The himalayas	7,759,473	Drama	2015
19	The age of shadows	7,487,545	Action	2016
20	War of the arrows	7,466,976	Historical drama	2011

Observing the Top 20 Successful film list between 2008 and 2016, <Veteran>[9] and <A Violent Prosecutor>[10], which reflected a crime, were at the third and the eleventh. Considering the trends of the two successful films that are above the level of the trends of crime films among Korean successful films between 1998 and 2016, distinct and distinguishing figures of 'crime' films can be re-confirmed. The two films have their commonality in 'Authoritative corruption'. <Veteran> presents an authoritative crime by a son of president of a chaebol, while <A Violent Prosecutor> illustrates the corruptions by politicians, but former prosecutors, illuminating the police and the prosecution resolving the crime. Considering the crime rate of all types of crimes had gradually increased, except during 2005 and 2006, and since 2008, the Global sub-prime mortgage, have dramatically increased in societies[11], <Veteran>

would be a film that is correspondingly depicting social phenomena to some extent. However, as the success of <A Violent Prosecutor> informs, it is impossible to conclude that patterns of 'economic crimes' are the only directions of public interest. Rather, the features of the characters in the two films – especially, the pattern of crimes, 'psychopath' - are the more effective tool to drag the public responses. Pointing out that "behaviors of companies targeting the pursuit of profits at their most preference are similar to the behavioral pattern of the psychopaths"[12], <Veteran> deals with a crime by a 'psychopathic' entrepreneur, rather than simply an 'economic crime'.

Therefore, it is difficult to assume the patterns of crimes, in societies, during economic recessions leading from the IMF economic crisis to the 2007 Global sub-prime mortgage,

will result in the public interest as well as successes of films. Based on the characteristics of crime films and their trends, it is inferable that the public has been consistently showing interests in 'psychopathic' crimes. Indeed, if the 'psychopath', as an 'invisible enemy' reenacted in successful films published after the 1998 Economic crisis presented a feature to amplify the anxiety and the fear of the public, contrastingly, the 'psychopath' reenacted in films published after the 2008 sub-prime mortgage offers a symbolic feature of vested interests. Hence, the tendency of constant interests of the public to 'psychopathic' criminals and 'psychopathic' trends being associated with various 'crime trends' is deducible.

#### 4. Conclusion and Specification

An objective of this research is to observe a correlation between successful Korean film ranks and the patterns of social crimes during the era of economic crisis between 1998 and 2016. Facing the era of economic crisis which has still been influential since 1998, societies are facing increases in the five violent crimes and property-related crimes. Although such social crimes have been reflected on public films, it is difficult to conclude that the public has interests in it or is influenced by them. This is because a cinematic reenactment of crimes and its impact to the public vary depending on the level of public interests. Analyzing the top 20 successful films during the era of economic crisis, the public had put their consistent interests, especially, in psychopathic crimes. Then, based on such public interests, a research on closer correlation between cinematic reenactment with its ripple effect and a social approach to 'psychopath' becomes necessary. Such research from various angles will provide a deeper understanding of correlation between occurrence patterns of social crimes, copycat crimes and their public acceptance.

### 5. References

#### 5.1. Journal articles

- [1] Kim JH. Kriminalitäts-und Strafrechtsveränderung durch Die Finanzkrise 2008. *The Association of Korea and Germany Laws*, 19, 75-101 (2014).
- [2] Bae IH. A Study on the Effects of Criminal Cases in Mass Media: Based on the Movies, Memory of Murder and the Voice of the Guy. *Soongsil University Social Science Research Institution*, 11, 131-150 (2014)
- [3] Jung JH. Social Meanings of Crime in the Movies: Focused on the Function Analysis of Civilian Protection in the Modern State Systems. *Correction Forum*, 8, 145-172 (2014).
- [7] Park JS. People's Perception and Fear of Psychopaths. *Korean Criminology*, 8(2), 145-173 (2014).
- [8] Yun WS. Testing the Relationships between Economic Crisis and Crime: Time Series Analysis of Unemployment and Crime from 1995 to 2005. *Journal of Korean Association of Public Safety and Criminal Justice*, 19(3), 153-189 (2010).
- [11] Lee CH. Global Financial Crisis and Criminal Policy. *Han Yang Law Review*, 33, 35-63 (2011).
- [12] An SJ. Corporate Psychopathy and Collective Guilt. *HUFS Law Review*, 34(1), 165-181 (2010).

#### 5.2. Additional references

- [4] <http://www.kofic.or.kr/> (2017).
- [5] Bong JH. Memories of Murder (2003).
- [6] Kang WS. Another Public Enemy (2005).
- [9] You SW. Veteran (2015).
- [10] Lee IH. A Violent Prosecutor (2016).

**Author**

**Han Young-hyeon** / Semyung University Assistant Professor

B.A. Semyung University

M.A. Sungshin Woman's University

Ph.D. Sungshin Woman's University

**Research field**

- An Analysis on Urban Space Korea Movies in the Early and Mid 1980s, Cineforum, 24 (2016).
- Tragic History Story of 'Knowledge, Power and Being', Contemporary Film Research Institute, 23 (2016).

**Major career**

- 2014~2016. Korean Film Association, Editor Commissioner
- 2014~present. Contemporary Film Research Institute, Editor Commissioner

Publication state: Japan  
ISSN: 2423-8279

Publisher: J-INSTITUTE  
Website: <http://www.j-institute.jp>

Corresponding author  
E-mail: [klitir@semyoun.ac.kr](mailto:klitir@semyoun.ac.kr)

Peer reviewer  
E-mail: [editor@j-institute.jp](mailto:editor@j-institute.jp)

<http://dx.doi.org/10.22471/police.2017.2.1.20>

© 2017 J-INSTITUTE

## A Study on Utilizing IoT for Preventing Approach Restraining Order Violation

Lee Jae-young

*Semyung University, Jecheon, Republic of Korea*

### Abstract

*The most general form of Domestic Violence committed among family members is, especially, the violence by a husband upon a wife. Domestic Violence physically, mentally and in the manner of property damages not also the wife, the victim, but also the husband and the rest of the whole family members, inducing further social issues. When Domestic Violence is continued, as a mean to prevent the Domestic Violence, an Approach Restraining Order can be used. However, due to the particularity that the assailant and the victim are the family members, infringement of such Restraining Orders often occurs.*

*IoT entails mutual interaction of all information by linking all entities at any place and any time between a human and the other, a human and an object or an object and the other. A GPS-attached bag is linked to domestic IoT, offering the real-time location of children having the bag to their parents and enables rapid responses of the police to violent crimes by an automatic report to the police via a voice recognition sensor installed in public places, when a sound of scream is detected.*

*This thesis proposes a system to automatically report to the police when a sound of scream of a victim is detected by a voice recognition sensor included in a smart-device, and prevent crime commitments of assailants who infringes on Approach Restraining Orders by using their locational information provided by IoT-based smart devices.*

**[Keywords]** *Policing, Domestic Violence, Internet of Things, Approach Restraining Orders, Location-Based Services, Voice Recognition Sensor*

### 1. Introduction

The number of Domestic Violence have been constantly increasing despite the improving life quality and stronger interests in lives of people. Domestic Violence means the violence occurring among family members, in fact, most of the assailants and victims are comprised of marital relations, especially wives being assaulted by husbands in most of the cases. Hence, Domestic Violence can be substituted by a term of Wife-abuse[1]. Domestic Violence causes physical and mental pain and property damages to not also the direct victim, the wives, but also the husbands, the assailants and their rest of the family

members, further, resulting in comprehensive social issues[2].

The societies had recognized Domestic Violence as private issues for ages, however, since the mid-1990s, perception of people changed Domestic Violence into a crime, hence, to prevent such a crime, a Special Law for Domestic Violence has been legislated in a form of social responses[1].

When Domestic Violence occurs, the victim asks help to the police at first. If there is a concern of having the Domestic Violence be recurred, an Approach Restraining Order can be requested, in accordance with the Special

Law in relation to Domestic Violence, to eliminate the risk of recurrence. An Approach Restraining is a request by a victim to the court so that the assailant cannot approach to the victim. However, due to the particularity that the assailant and the victim are the family members, infringement of such Restraining Orders often occurs.

Thus, the thesis proposes a system to inform urgent emergency situations that may occur to a victim to the police and prevent any crime commitments by assailants who infringe on Approach Restraining Orders. The system being proposed includes a voice recognition sensor installed in a IoT-based smart device and provides location-based services.

The thesis composition as follows. Chapter 2 illustrates related studies to the system being proposed, Chapter 3 suggests a system that can prevent illegal behaviors by assailants against Approach Restraining Orders, by a mean of IoT-based smart devices. Chapter 4 examines the proposed system, and at last, Chapter 5 concludes the thesis.

## 2. Theoretical Background

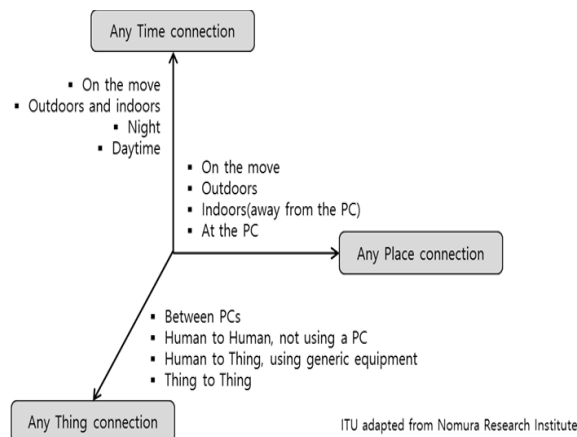
### 2.1. IoT

Thanks to the development of wireless and wired networks and smart devices, overall interests in IoT, Internet of Things, that can link between any entities such as people and objects, at any time and any place, has been increasing. IoT is a technology that can actualize a true ubiquitous environment by adding a notion of 'thing' to the existing information technology concept that data can be transmitted at any 'time' and 'place' as depicted in <Figure 1>, and enabling dynamic connections between objects[3].

IoT is used in various areas ranging from home appliances, logistics, distribution and health care. Especially, the location-based services of IoT can be utilized for provision of various information in livelihoods such as traffic report and location tracing. The location-based services not only figure out locations of people and vehicles, but also can be

aided by being linked with emergency institutions when placed in a jeopardy[4].

Figure 1. Concept of the IoT.



### 2.2. Domestic violence and approach restraining injunction order

According to the Special Law for Domestic Violence, Domestic Violence refers to “Commitment of behaviors occurring among family members and entailing physical and mental damages as well as property damage”, and family members includes spouses in common-law marriage, a person who was a spouse, a person who is or was in lineal ascendant and descendant relationship including foster and parent children, a person who is or was in relationship of child of step-parents or a father’s legal wife and a child of a concubine, and relatives living together[1].

From January to December of 2016, the number of counseling for Domestic Violence among all counseling via Telephone Domestic and Sexual Violence Relief Center by Korean women consists of 26.7 percent as 562 out of 2924. In most cases, the victim and the assailant were in a marriage relation, and such cases were 79.6 percent of all Domestic Violence counseling, and most of them involved husbands as the assailants against wives[5].

When Domestic Violence occur, the official organization that the victims call for help in their urgent situations is the police. Despite the first-aid practiced by the police, still there is sufficient possibility of reoccurrence, hence

an Approach Restraint should be used if the situation of the victim is fully approvable for protection from the assailant. An Approach Restraint refers to a request by a victim to the court, especially, when consistent violence is experienced by the victim from the assailant and if such a circumstance is likely to be repeated, so that the assailant can no longer approach to the victim[6].

Contents of the Approach Restraint is regulated in accordance with Article 29, Section 1 of the Law of Domestic Violence, and as the below table.

**Table 1.** Article 29, section 1 of the law of domestic violence.

No. 1	Isolation or vacation from the room where the victim or the family members live in or occupy.
No. 2	Restrained within 100 meters away from places such as house and work place of the victim or the family members.
No. 3	Prohibition of any contact via telecommunication based on the framework act on telecommunication article 2 no.1 to the victim or the family members.
No. 4	Consignment to a nursing home or other medical institutions.
No. 5	Custody to the jail or the detention center of national police offices.

Among the Article 29, Section 1 of the Law of Domestic Violence, Approach Restraining Orders from No.1 to No.3 cannot exceed 2 months, and only if extension of the measure is considered necessary to protect the victim and is approved, the measures can be additionally practiced 2 times for 2 months at each time[7].

### 2.3. Crime prevention by using IoT

As a 10 years-old girl was recently murdered in Incheon, the public interests in the safety of children has been increasing. Each telecommunication agencies are providing location-based services of IoT[4]. By linking household IoT with a bag which GPS is attached, parents can identify the location of their children with their bag through smart

phones. Furthermore, the safe school commuting service is a service that informs parents through messages to their exclusive device units when their children passes either the front or the back gate, and allows identification of moving routes of children every hour as well as real-time location identification[8].

Crimes against women during the past few years have occurred in crowded public places. Therefore, an installment of security systems such as an emergency bell that allows rapid call for help at a crime occurrence in public places. However, despite an existence of an emergency bell, the system has a limitation to rescue victims as the system would work only if the force of an assailant is defeated. Moreover, observing attempted crimes, rescuing the victims were available thanks to the screaming of female victims in most cases. For that reason, KT has recently developed Safemate that adopted high-tech intelligent IoT technology. Safemate detects a sound of scream and report the emergency to the police, hence enables the victim to be rescued[9].

### 3. Proposed System

An Approach Restraining Injunction Order based on the Law of Domestic Violence is measure to suspend the assailant from 100 meters away from the victim and to prohibit all telecommunication including telephone and messages, depending on the will of the victim. However, due to the particularity that the assailant and the victim are the family members, infringement of such Restraining Orders often occurs, and damages from violence to the victim frequently results from the infringement[10][11].

Hence, the thesis would propose a system to prevent any crime commitments by assailants who infringes on the Approach Restraining Orders by using smart devices and to protect victims in emergency situations that is likely to happen to them via automatic reports to the police.

When an Approach Restraining Injunction Order is practiced, both the victim and the assailant should mandatorily attach an IoT-based smart device that transmits real-time locational information of themselves to the database ran by the police. Additionally, a voice recognition sensor is added to the smart device of the victim.

The system being proposed is operated by steps, in accordance with the distance between smart devices of the victim and the assailant.

Step 1: If the distance between smart devices of the victim and the assailant becomes within a kilometer, a warning sound is alarmed in each device, informing that the two devices are getting closer.

Step 2: If the distance between smart devices of the victim and the assailant becomes within 500 meters, even after the first warnings, the police send a text message to the smart device of the assailant that there is a possibility of infringement of the Approach Restraining Order. An exact locational information is provided to the smart device of the victim via a text message.

Step 3: If the distance between smart devices of the victim and the assailant becomes within 300 meters, even after the text message warnings, the police immediately call the victim, confirm the current situation and notify the safest place around the location of the victim. Furthermore, the police call the assailant, confirm the current situation and take warning measures.

Step 4: If the distance between smart devices of the victim and the assailant becomes within 200 meters, even after the direct warning calls, the police immediately move to the location of the victim and protect the victim, then record the current situation into the database.

Within the proposed system, the locational information of smart devices of assailants and victims which will be generated during operations, will be stored in the database which the police manage so that it can be utilized in civil and criminal lawsuits in the fu-

ture. Furthermore, the smart device of a victim will automatically report to the police when it detects a screaming sound of the victim. The police who received the reporting alarm will immediately move to the victim and protect the victim from any probable emergency situations.

#### **4. Contemplation of the Proposed System**

The thesis proposed a system using smart devices to prevent crime commitments by assailants who infringes on an Approach Restraining Orders and to practice an automatic report to the police when the device detects a screaming sound of the victim.

Such proposed system is devised to entail the responses of the police by step based on the distance between two smart devices. That is, by informing assailants that the police is monitoring all current situations before any crime is committed, any illegal behaviors can be prevented in advance.

During the steps of responses by the police, the warning alarm at Step 1 can prevent any possible but unintended illegal behaviors as an assailant was not aware of the location of the victim.

Locational information of smart devices is stored in the police database in real-time, hence, can be used in civil and criminal lawsuits occurring in the future.

Finally, the smart device of victims with a voice recognition sensor detects a screaming sound and executes an automatic report to the police. The police who received the report immediately move to the victim and perform protection of the victim from any probable emergency situations.

#### **5. Conclusion**

Even with increasing social attention to Domestic Violence nowadays, the trend of Domestic Violence has been consistently increasing. Although Domestic Violence was not approved as a crime due to the perception of people upon Domestic Violence, as a



private issue, as the Special Law for Domestic Violence was enacted since the mid-1990s, a proper reason for the police to intervene into Domestic Violence has been arranged. If there is sufficient risk of recurrence of Domestic Violence and a need for protection of the victim is reasonably approved, the victim from Domestic Violence can apply for an Approach Restraining Injunction Order. However, although such application of Approach Restraining Order is accepted, in case of Domestic Violence, due to its particularity that the assailant and the victim are the family members, infringement of such Restraining Orders often occurs.

Therefore, the thesis proposed a system for preventing any crime commitments by assailants who violate the Approach Restraining Orders by using the locational information of both the victim and the assailants, received from their smart devices and to detect a screaming sound for a further automatic report to the police.

During the operations by step based on the distance of the two smart devices, the warning sound at Step 1 informs an assailant that the police is monitoring, hence, can prevent a crime commitment. Any possible but unintended crime as an assailant was not aware of the location of the victim, has become preventable by practicing a warning alarm at Step 1. In addition, through real-time storage of locational information of smart devices into the database operated by the police, civil and criminal lawsuits are enabled to utilize the information. Lastly, the smart devices of victims with a voice recognition sensor added, are devised to automatically report to the police when a screaming sound of the victim is detected and enabled an immediate move of the police who received the report as well as protection of the victim.

The system proposed in this thesis utilizes locational information that is received in real-time from smart devices. The locational information is an extremely sensitive data which may induce violation of privacy of an individual as it provides all data of active range and other contents of the person. Discussions for an appropriate utilization of the locational information are essential.

## 6. References

### 6.1. Journal articles

- [1] Park KD & Chung JH. A Study on the Image Augmented Reality Card Using Augmented Reality. *Journal of Digital Convergence*, 12(8), 467-474 (2014).
- [2] Kim JP & Lee DC. Development of Mobile Location Based Service App Using Augmented Reality. *Journal of the Korea Institute of Information and Communication Engineering*, 18(6), 1481-1487 (2014).
- [3] Jang BI & Kim CS. A Study on the Security Technology for the Internet of Things. *Journal of Security Engineering*, 11(5), 429-438 (2014).
- [6] Hwang JI. Trends Research and Development View of Mobile Augmented Reality. *Journal of Advanced Information Technology and Convergence*, 11(2), 85-90 (2013).

### 6.2. Thesis degree

- [11] Oh SY. The Research of Police Response to Domestic Violence. Dongguk University, Doctoral Thesis (2009).

### 6.3. Additional references

- [4] <http://terms.naver.com/> (2017).
- [5] <https://hotline.or.kr/> (2017).
- [7] <http://hyosunglaw.kro.kr/> (2017).
- [8] <http://www.sisaon.co.kr/> (2017).
- [9] <http://news.join.com/> (2017).
- [10] <http://thel.mt.co.kr/> (2017).

**Author**

**Lee Jae-young** / Semyung University Assistant Professor

B.A. Semyung University

M.A. Semyung University

Ph.D. Chungbuk National University

**Research field**

- A Study on the Key Distribution Protocol for ZigBee Wireless Sensor Network, International Journal of Applied Engineering Research, 10(90) (2015).

- A Study on the Device Authentication and Key Distribution Method for Internet of Things, International Journal of Security and Its Applications, 10(9) (2016).

- A Study on the Safe and Efficient Method of Transmitting Data in ZigBee Network, Indian Journal of Science and Technology, 9(24) (2016).

**Major career**

- 2012~2016. Semyung University, Assistant Professor

- 2015~present. Korea Association of Addiction Crime, Director

Publication state: Japan  
ISSN: 2423-8279

Publisher: J-INSTITUTE  
Website: <http://www.j-institute.jp>

Corresponding author  
E-mail: [s092724@naver.com](mailto:s092724@naver.com)

Peer reviewer  
E-mail: [editor@j-institute.jp](mailto:editor@j-institute.jp)

<http://dx.doi.org/10.22471/police.2017.2.1.26>

© 2017 J-INSTITUTE

## A Study on the Improvement of Digital Forensic Utilization for Cyber CRIMES

Oh Sei-youen

*Semyung University, Jecheon, Republic of Korea*

### Abstract

*Cyber-crime refers to the infringement of benefits and protection of laws - socially harmful behaviors - that occurs around cyber-spaces that forms via computer systems connected between information communication network such as the Internet. Such cyber-crimes have characteristics of anonymity, profession, technology and repeatability, hence, are required to be monitored as not only domestic but as an international issue, considering that the cyber-crimes are committed with no spatial and time restriction.*

*Therefore, This study is about how the government should deal with the rapidly growing and diversifying cyber-crimes, and figure out the policy and the techniques for strengthening in the investigation of cyber-crimes to unite and work towards a common goal. As the perspective of the policy, the government must support the new equipment and the professional manpower to utilize the Digital Forensic system. As the perspective of the technique, the government must construct the integrated system which helps to work with the investigators through the criminal cases. Moreover, this system has to study an analytic plan of the embedded system to use embedded forensic techniques and the basic ontology is important to be in the integrated system. And then in the future, measures to respond to diversified and intellectualized cyber-crimes should be more systemized and be constantly developed with more insightful Digital Forensic analysis than before.*

**[Keywords]** Policing, Cyber-Crime, Digital Forensic, Criminal Investigation, Embedded System.

### 1. Introduction

Cyber-crime refers to the whole crime actions that occurs in cyber-space including hacking(cracking) which threatens cyber-space security and virus dissemination by attacking the computer systems or information communication that constitutes cyber-space and practicing defamation of character, intimidation, fraud, prostitution and sales of negative images via the Internet[1]. Observing the cyber-crime occurrence trend, it has been increasing more rapidly than conventional crimes, especially within the recent 10 years by more than double. The severity and scale of damages are considerable huge and intensive measures should be prepared by international communities with collaboration

among countries. To respond to cyber-crimes, in case of South Korea, a Cyber-crime Response Center is established and has been responding to cyber-crimes. Due to the such cyber-crime occurrence trend and diversified crime-related technologies, highly expert personnels are required, however, not sufficient, and considering the environment is a cyberspace, constant technology development and budget support are in shortage as well, even though utilization methods of Digital Forensic for evidence collection should be actively sought[2].

Therefore, this study proposes a measure to respond to cyber-crimes, from both policy and technological aspects, based on forensic methods via Digital Forensic. To achieve such

a accomplishment, criminal investigation procedures in Digital Forensic, concepts and types of cyber-crimes should be monitored first, then Digital Forensic investigation methods to effectively respond to cyber-crimes and probable problems in the methods should be revised by looking at cyber-crime occurrences by type and state of use of Digital Forensic by the domestic police.

## 2. Theoretical Background

If an advanced research of Digital Forensic for crime investigation is revised, the study is distinguished into two aspects of policy and technology, involving uses of Digital Forensic ontology, upon concept and procedures of Digital Forensic, human right infringement issue of Digital Forensic-related regulations and ability to collect evidences. Especially, the study is mostly consists of digital data analysis method in terms of Digital Forensic technology, and by using such method, various analytical areas exists – file carving, keyword search, timeline analysis, file-format analysis and code-breaking. In recent times, searches upon tailored analysis methods to each unit and data-type are being processed thanks to popularization of diverse storage such as mobile devices and emergence of virtual systems[3]. When the real conditions of Digital Forensic in Korean police is monitored, the number of requests for digital evidence analysis is increasing, however, equipments and personnels to practice are insufficient and thus, improvement measures are being suggested by the first line investigators, with profession in Digital Forensic ,that there are limitations in performing effective criminal investigation via Digital Forensic based on the types and circumstances of crimes from the aspect of policy[4]. In foreign countries, the application range of Digital Forensic is widely dispersed from terrorism to violent crimes and even economic spy cases, and by establishing Digital Forensic research institute which can deal with such crimes at once, effective criminal investigation is available and being used at suitable time and place, further revising any possible data omissions during investigation procedures[5].

## 3. Discussion on Cyber Crimes and Digital Forensic with Its Utilization

### 3.1. Concept of cyber crimes and digital forensic

Although there is no clear academic definition on cyber-crime, it is a general concept, perceived as criminal behaviors which are generally practiced in cyber-spaces that form based on a computer system connecting media such as info-communication network, the Internet[6]. In other terms, the notion of cyber-crime is an undetermined neologism spatializing the cyber-space and further and emphasizing on locations where crimes including school violence, family violence and subway crime, further including a broad range of cyber-crimes when there is any digital evidence to the crime although it does not involve any use of network or computer[7]. For cyber-crime types, the categorized standards by the National Police Agency distinguish into two-cyber-terror crimes such as hacking and virus and general cyber-crimes such as e-commerce fraud, illegal replica, cyber-violence and infringement of private data - according to the purpose of crimes, and features of cyber-crimes are non-face-to-face, anonymity, profession, technology, unconstraint time and space, considerable property damage, rapid propagation and difficulties in detection and inquest, which differ from other existing crimes[8][9].

Digital Forensic refers to a set of detection and inquest processes of a certain behavior based on in-stored digital data in information devices as evidences. That is, through processes of collection, transportation and analysis of a digital evidence, Digital Forensic was first used to capture crime-related data and use it in the court as an evidence of guilt in IACIS(International Association of Computer Specialists) held in Forkland, United States in 1991[10]. As Digital Forensic is accommodated as a part of criminal investigation, the collection of digital evidence involves the same legal procedure as the case of general evidence, hence, additional actions are required to treat the features of digital media. As digital media and data, that become the targets of Digital Forensic, has characteristics

of invisibility, falsification, obviousness of replication and volatility, appropriate measures are needed to each different medium from the initial collection to storage and such conformity of procedures should be reported and be proved by the investigation institution[11].

### 3.2. Digital forensic process

Digital Forensic process was suggested from Digital Forensic standard process guideline of National Police Agency Cyber Terror Response Center. That is, investigators are deployed to crime scenes, collect activated data and prove evidences including acquisition of evidences, replicating an image of the evidences and transporting them as well as packaging. Digital Forensic investigation is carried out by completing analysis and investigation by implementing timeline log analysis, data restoration, file and vocabulary research and password decoding of the packaged and transported evidences, and producing a report with expert opinions attached based on the evidence analysis.

### 3.3. Utilization of digital forensic on cyber crimes

The National Police Agency categorizes cyber-crimes as cyber-terror crimes and general cyber-crimes and associated occurrence and arrest states are the same as <Table 1>[12]. While cyber-crimes rose from 116,961 to 155,366 by 32.8% from 2011 to 2013, arrest decreased from 91,496 to 86,105 by 5.8% from 2011 to 2013, thus it is perceivable that proper arrests are not being performed on the increasing number of cyber-crimes. As characters of cyber-crimes involve aspects of profession and technology, the first line investigating police officers were not professional enough to deal with files and databases, even if they arrived at crime scenes, could not collect digital evidences in a proper way, and possibly resulted in decrease in the number of arrest compared to the number of cyber-crime occurrence state for the reasons.

**Table 1.** Cyber-crime occurrences and arrested current states(2011-2013).

Type	Total			General cyber crime		
	Occurrences	Arrest		Occurrences	Arrest	
		Number	Personnel		Number	Personnel
2011	116,961	91,496	95,795	103,565	81,197	84,396
2012	108,223	84,932	86,513	98,616	78,56	79,274
2013	155,366	86,105	92,621	144,959	81,573	87,107

<Table 2> is the current analysis state of digital evidences during the past 3 years and the number of occurrences which a digital evidence was analyzed increased from 763 in 2008 to 2,984 in 2011 by 251% on the basis of

2008 and even the number of captured evidences increased from 2,160 in 2008 to 6,632 in 2011 by 207% on the basis of 2008, showing increases in both numbers of cyber-crime occurrences and media for an analysis[8].

**Table 2.** Digital evidence analysis status(2008-2011).

Analysis status (Evidence analysis)	2008	2009	2010	2011
Case number	763	1,789	2,543	2,984
Evidence number	2,160	4,746	5,476	6,632

<Table 3> is the current status of digital media from 2007 to May 2011, showing an increase by 118% from 2,864 in 2008 to 6,247 in 2010. Among digital media, particularly, the number of smart-phone and mobile-phone analysis increased from 47 in 2008 to 1,611 in 2011, by 3,327% and is perceived to

be the most frequently used mean for the support of digital media analysis[8]. Therefore, as cyber-crimes using embedded systems such as smart-phones and mobile-phones are increasing, tailored Forensic investigation processes and analytical methods to each device with different characteristics are required.

**Table 3.** Digital media types analysis status(2008-2011.5).

Type	Total	PC-note	CCTV / Navigation	Smart-phone / Cellular-phone	Hacking / Password-database
2008	2,864	2,325	51	47	441
2009	5,493	3,820	185	658	828
2010	6,247	3,864	276	1,611	496
2011	2,816	1,394	330	984	108

#### 4. Improvement Measures on the State of Use of Digital Forensic on Cyber Crimes

Knowing from the above current state of domestic cyber-crime occurrences and of Digital Forensic use by the National Police Agency, the number of domestic cyber-crime is constantly increasing, however, due to problems in technological support and policies in investigation processes, arresting practices are not being conducted properly.

Therefore, based on the various problems, a number of application measures of Digital Forensic will be proposed to strengthen responsive actions to cyber-crimes.

First, as Forensic tools are used for an appropriate feature and suitable investigation methods during investigations of cyber-crimes, problems time constraint of cyber-crimes and human right infringement during investigation process may arise. Thus, in order to solve such problems, a Digital Forensic system in an integrated form establishing Digital Forensic ontology and other means should be equipped rather than separated Digital Forensic analysis. Consequently, Digital Forensic system in a form of ontology system should be established.

In addition, for smooth progress and application of Digital Forensic system in a form of ontology system, an appropriate budget, support and training specialized personnels who can utilize them the support should be backed up. As observed above, while the number of digital evidence analysis is increasing by year, the number of personnels who are capable of analytical tasks are only 61 on the basis of 2012 according to the National Police Agency Cyber Terror Response Center, and the number is significantly insufficient to respond to the actual cyber-crime occurrence trend. Furthermore, assuming that acquisition of digital evidences is the most effective and critical proof to prove guilt, strengthening education upon existing professional personnels and training new experts should be implemented in circumstances that profession of the first line investigating police officers are required.

Third, among cyber-crime types, Internet fraud is constantly increasing and the number of conducted analysis on smart-phones and mobile-phones are overwhelmingly increasing, even from monitoring the current state of digital media analysis. Therefore, development of tools is needed so that Digital Forensic can escape from the processes of Forensic collection and analysis of a computer system

of a suspect and execute recognition of various embedded systems such as smart-phones and analysis of different characteristics of each device for further establishment of a guideline.

Lastly, future cyber-crimes can be developed even to various cyber-crimes occurring at any place using diverse digital devices including from personal computers to smart-phones, hence, implementation of a scientific investigation method that can respond to the crimes is necessary as well as constant research. In particular, recently, as more diversified cyber-attacks have become available via gaming devices, navigations and mobile devices including smart-phones, PDA, deeper analysis measures for embedded systems should be researched and even Anti-Embedded-Forensic technology should be accommodated into further interest and research from the view of visible function of security.

## 5. Conclusion and Proposal

Fact that the increasing ratio of cyber-crime has been more dramatic and rapid than the one of other general crimes in modern times was perceivable. Especially, development in IT technology and increased participation of people using the Internet has contributed to the increasing frequency of cyber-crimes.

Hence, the paper investigates the state of use of Digital Forensic and search for new directions to strengthen future responsive measures to cyber-crimes. Indeed, considering the future possible growth and application range of Digital Forensic field, at a point when data collection and analysis via Digital Forensic upon computers of criminals or suspects are required, cyber-crimes using embedded systems including mobile devices such as smart-phones and PDA, navigations, gaming devices are expected to increase, thus, even the embedded systems are recognized as a target of investigation, individually tailored analysis measures for different features of each device are needed and a comprehensively integrated management support system is sincerely needed.

## 6. References

### 6.1. Journal articles

- [2] Oh SY. The Application of Digital Forensic Investigation for Response of Cyber-crimes. *Journal of Society of Digital Policy & Management*, 13(4), 81-97 (2015).
- [3] Lee YH & Park HS. Analysis Strategy of Big Data in Mobile Cloud. *Journal of Communication and Information Science*, 32(7), 57-62 (2015).
- [4] Yoo YH & Song BG & Park SJ. The Necessity and Training Plans for Digital Forensic Expertise. *Korean Police Studies Review*, 11(4), 253-284 (2009).
- [5] Shin JW. A Study on Digital Forensic Human Training Method. *Journal of the Korea Institute of Information and Communication Engineering*, 18(4), 779-784 (2014).
- [6] Kim SW & Jo HB. Prevention Methods of Cyber-crimes Using the Private Security. *The Korea Contents Association*, 13(3), 141-151 (2012).
- [7] Meshram BB & Sindhu KK. Digital Forensics and Cyber Crime Datamining. *Journal of Information Security*, 3(3), 169-201 (2015).
- [8] Song BG & Chang SH. The Actual Condition of Police Digital Forensic and Its Solutions for Improvement. *Korean Police Studies Review*, 12(2), 115-142 (2013).
- [9] Jeong W. The Recent Situation of Cyber Crime and the Legal Measurements. *Hongik University Legal Research Center*, 10(1), 195-224 (2009).
- [10] Yun HK & Lee SH. Digital Forensics Ontology for Intelligent Crime Investigation System. *Journal of Korea Society of Computer and Information*, 19(12), 161-169 (2014).
- [11] Lim KS & Park JH & Lee SJ. Trends and Challenges of Current Digital Forensics. *Journal of Security Engineering*, 5(6), 461-474 (2008).

### 6.2. In addition references

- [1] [www://terms.naver.com/](http://terms.naver.com/) (2017).
- [12] Korean National Police Agency. Statistical Yearbook of the Police (2013).

**Author**

**Oh Sei-youen** / Semyung University Assistant Professor

B.A. Daejeon University

M.A. Dodguk University

Ph.D. Dodguk University

**Research field**

- A Study of Park Crime Prevention System Related to IOT and Big Data, Journal of Applied Engineering Research, 10(90) (2015).
- A Study on the Establishment of Policing Governance by Utilizing Big Data Based on Cloud, Indian Journal of Science and Technology, 9(24) (2016).
- A Study on Crime Prevention of Dating Violence Based on IOT, International Journal of Pharma and Bio Sciences, 1 (2017).

**Major career**

- 2012~present. Korean Association of Addiction Crime, Director
- 2013~present. Semyung University, Assistant Professor
- 2014~present. Korean Police Studies Association, Research Director



Publication state: Japan  
ISSN: 2423-8279

Publisher: J-INSTITUTE  
Website: <http://www.j-institute.jp>

Corresponding author  
E-mail: [parkin@mail.uc.edu](mailto:parkin@mail.uc.edu)

Peer reviewer  
E-mail: [editor@j-institute.jp](mailto:editor@j-institute.jp)

<http://dx.doi.org/10.22471/police.2017.2.1.32>

© 2017 J-INSTITUTE

## The Relationship between Social Capital and Citizen Satisfaction with POLICE: A Comparison between South Korean and American Citizens

Park Sun-young<sup>1</sup>

*Mokwon University, Daejeon, Republic of Korea*

Park In-sun<sup>2\*</sup>

*University of Cincinnati, Ohio, United States of America*

### Abstract

*A survey of social capital and satisfaction with police was collected in two cities—one from the U.S. and one from South Korea. Using the data from the survey of 628 citizens in total, this study discusses the significance and strength of social capital factors in these two countries.*

*In terms of demographic characteristics, participants from the U.S. and Korea were generally comparable. As a result of factor analyses, different factors of social capital emerged. For the U.S., attitudes toward diversity, activity, and life values emerged as significant factors. A relationship between cooperation and neighborhood was only significant for the Korean sample. Participation and safety/trust factors emerged as meaningful in both countries, and these two factors were found to be significant predictors of satisfaction with police for both countries in subsequent regression analyses. Higher levels of activity factors were only associated with greater levels of satisfaction with police in the U.S.*

*Some factors were found to be relevant in both countries, whereas other factors had unique influence on satisfaction with police in each country. Policy makers from both countries should cooperate to develop policies related to commonly relevant factors and to develop unique policies related to other relevant factors. Existing research has rarely taken a multifactorial approach to specifically examine its influence on social capital. Comparison of the relationship in two different countries adds further value to the present study.*

**[Keywords]** Policing, Satisfaction with Police Service, Social Capital, Cross-Country Comparison, International Study of Policing

## 1. Introduction

Efficiency and effectiveness of government services rely on the support from the public. It is critical for a government agency to retain a positive perception as well as continued support from the public. In a recent survey of citizens, approximately 33% and 38% participants in South Korea and America, respectively, answered that they could trust their government, and these levels were lower than the OECD average[1]. As a public institution, effective police agencies are also dependent on citizen perceptions and support.

A positive relationship with the public is associated with greater level of police effectiveness and job satisfaction[2][3][4][5].

Followed by the civil rights movement and protests, the public perception of law enforcement agencies has drawn the attention of researchers. As a result, it is now widely acknowledged that public support and cooperation are necessary to fulfill the goals and objectives of police agencies[6]. Research exploring the relationship between the police and citizens has largely focused on identifying the predictors of higher satisfaction toward public service. Some researchers sought to determine if people of different demographic

backgrounds hold different perceptions about law enforcement[5][6]. Other researchers have focused on the influence of environmental context, such as neighborhoods or communities[3][7][8]. Recent research on citizens and satisfaction with public services has moved beyond the objective characteristics and has begun to examine subjective perception as a determinant of the level of satisfaction[9]. This line of research emphasizes that opinions of community members may be more complicated and individualized by unique perceptions and may not be captured fully by solely looking at objective characteristics. This argument lends support to the claim that subjective perceptions should be incorporated in public service research. On these grounds, the present study examines the perceived level of social capital and its influence on satisfaction with police in two different countries.

## 2. Theoretical Background

### 2.1. Definition of social capital

Emphasizing a community's role in increasing the performance of schools in West Virginia, Lyda Hanifan(1916) defined social capital while comparing it to financial capital. In the same way as people benefit from the products and conveniences generated with financial resources, social capital can "satisfy social needs which may bear a social potential to the substantial improvement of living conditions in the whole community"[10]. Coleman (1988) provided a more specific definition of social capital using a functional approach. Coleman's definition states that social capital is domain-specific, especially within the domains that involve certain types of actors. Then, social capital consists of multiple sub-factors that may or may not be beneficial to particular actors[11].

More recent discussion regarding social capital can be found in the work of Robert Putnam. Putnam(1993) linked the presence of social capital with a community's ability to elicit collective action and cooperation[12]. Specifically, Putnam(1995) emphasized the role of social organizations(i.e., trust, norm,

networks, and solidarity) in enhancing the cooperative actions and efficiency of social structures[13].

Putnam's conceptualization of social capital is particularly relevant to the present study because he associated social capital with institutional success. In his book, *Making Democracy Work*, the northern governments in Italy manifested higher institutional performance than the southern counterparts, and Putnam(1993: 181) attributed this disparity to higher levels of reciprocity and civic engagement in the north that were expressed through various social structures, such as unions and mutual aid societies. This conceptualization is in line with Nahapiet and Goshal's (1998) definition of social capital as the sum of actual and potential resources available in the social institutions, and the institution-specific portion of social capital is worth further investigation[14].

### 2.2. Measurement of social capital and satisfaction with police

Measurement of social capital has been a central issue among social scientists. Although Putnam introduced seven main dimensions of social capital(i.e., social trust, political participation, volunteering, civic participation, religious participation, informal social connections, and workplace connections), the measurement of social capital is considered one of the most divergent concepts[15]. Briefly stated, dimensions of social capital discussed in existing literature include cognitive and relational social capital[14], school and educational outcomes[11], democracy and governance[12][16][17], community level crime rates[18][19], and economic development status[20].

Early research exploring citizen perceptions of the police has been criticized for viewing social capital as a one-dimensional construct[21][22]. Inconsistencies in measurement contribute to producing contradictory findings. The present study will utilize a measurement tool that allows for an analysis of both general and specific factors discussed in the sections above. Specifically, the present study will apply the multifactorial approach using the questionnaire developed by

Onyx and Bullen in 2000[23]. They believed that inconsistency in the measurement of social capital was due to abstract and broad definitions of social capital and that a series of different components composed the concept of social capital. Employing their instrument allowed us to examine how the same or different factors of social capital explained variation in citizen satisfaction with police in different communities.

### **2.3. Social capital and satisfaction with police in the United States**

The relationship between social capital and citizen satisfaction has been studied in the frame of public service in the United States. Citizens' satisfaction with local governance was measured as local government efficacy and attachment to the local community as well as the provision of some level and quality of services, and these factors significantly predicted satisfaction[24].

Other researchers paid more specific attention to satisfaction toward police. Skogan (2005) assessed the quality of routine police-citizen encounters and found that police attitudes as well as characteristics of city residents predicted satisfaction level of both citizen-initiated and police-initiated contacts [25]. Churprakobkit and Bartsch (2001) also found police attributes to be important in predicting citizen satisfaction. In addition, professional conduct, friendliness, and crime control/prevention factors were positively correlated with higher levels of satisfaction toward police[26].

### **2.4. Social capital and satisfaction with police in South Korea**

In researches conducted in South Korea, social capital has been largely defined as a resource produced by a group of people that share the same space or environment; in addition, this resource can be potentially used for enhancing productivity, attachment, and participation in group activities[27][28][29][30]. More specifically, Kim (2011) examined the role of social capital and its influence on satisfaction of life. Also, trust and participation were positively related to

the levels of life satisfaction among 300 participants of a community resource mobilization program in Korea[31]. Other dimensions of social capital included "group and network", "trust and solidarity", and "collective action and cooperation." In this study, marital status, income, and community area also appeared as significant in addition to the social capital factors predicting the level of life satisfaction.

Another study conducted by Park and Kim (2012) revealed that among the factors of social capital, trust and involvement contributed the most to the increase in life satisfaction and solidarity[32]. Social capital was measured as a composite of four factors: trust, involvement, network, and rule. The common factors that appeared to be significantly predicting higher level of life satisfaction across studies reviewed here included trust and active participation and involvement[26][27][28][30].

In another study on police performance in South Korea, previous encounters and evaluation of police were positively correlated, while city size, SES, age, and perceptions of corruption were negatively related[33]. In sum, social capital seems to be influential in determining police satisfaction, and citizen's perceptions play a role in this process.

## **3. Methods**

### **3.1. Research questions**

The purpose of this research is to examine the relationship between social capital and the level of satisfaction toward police performance in the community. The specific research questions that will be asked are as follows:

- 1)What factors constitute social capital among citizens? Are the factors different or similar between the U.S. and Korea?
- 2)The relationship between citizen social capital and satisfaction with police: Is the social capital level in the community positively associated with satisfaction with police in the U.S. and Korea?

3) If there are common factors that constitute social capital, are these factors associated similarly or differently to the levels of satisfaction with police in the U.S. and Korea?

By answering these questions, the proposed study will describe the level of social capital established in the communities in two countries, identify weaker or stronger dimensions of social capital, examine the influence of social capital on satisfaction with police, and suggest theoretical and practical implications to build stronger social capital in communities.

### 3.2. Data and sample

Data were collected in two metropolitan cities—one in South Korea and one in the United States. Both cities are similar in that they are located approximately at the median of the distribution of metropolitan cities in each country. The Korean data were collected from January to June in 2015. Paper and pencil survey instruments were distributed to 350 adult citizens over six months. The survey instrument contained multiple questionnaires that asked questions regarding the level of social capital and satisfaction with police performance as well as demographic information. Participation was voluntary, and participants were asked to self-report their answers. Among the 350 citizens who received the survey, 346 returned their answers; thus, the response rate was 98.8%.

The data from the U.S. were collected from June to October in 2015. Our purpose was to obtain data that were comparable in number and in demographic characteristics. The same survey instruments were distributed. No personal identifiers were collected, and the research protocol was approved by the IRB. 282 respondents out of 300 returned their survey, so the response rate was high (94.0%).

### 3.3. Measures

The questionnaire regarding citizen social capital was retrieved from Onyx and Bullen (2000). Onyx and Bullen (2000) developed a robust scale of social capital based on the definition of social capital established by previous works [23]. The questions were about

multiple areas of social capital, such as feelings of trust and safety, value of life, and participation in the local community. Among 34 items, 31 items were used in the final version of the survey. Items were translated into Korean by two experts who were familiar with both languages. The citizen social capital scale demonstrated reliability in both languages (Korean  $\alpha = .95$ ; American  $\alpha = .82$ ).

The dependent variable was retrieved from Park (2012), in which the level of satisfaction toward police was measured by a subscale of NDSI (Newly Developed Service Index) [34]. NDSI was first developed by Lee and Lee in 2009 to better capture the procedural and consequential aspects of satisfaction toward public services [35]. Park (2012) adopted this scale and restructured the questions to measure satisfaction with police. The original items were in Korean and were therefore translated into English by two experts who were familiar with both languages. The instrument demonstrated reliability in both languages (Korean  $\alpha = .94$ ; American  $\alpha = .94$ ). In addition, demographic information, vocational status, level of education, and age were included as control variables.

## 4. Methods

### 4.1. Univariate analysis

Samples for Korea and the U.S. consisted of 346 and 282 respondents, respectively (Table 1). Almost half of the respondents were male in both samples, while the average age of the respondents was slightly higher for the Korean sample (Korea = 38.76 years; U.S. = 29.18 years). Race and ethnicity were measured only in America, since Korea's native ethnic group accounts for approximately 96% of the total population. The majority of American respondents were White and non-Hispanic. The majority of the respondents in both countries were students (Korea = 31.50%; U.S. = 51.77%) who had completed high school (Korea = 83.82%; U.S. = 69.50%).

**Table 1.** Descriptive statistics for Korean and American citizens.

	Korea (n = 346)		U.S. (n = 282)	
	Mean	SD	Mean	SD
Gender (male = 1)	.57	.50	.44	.50
Age	38.76	13.76	29.18	12.02
	Frequency	%	Frequency	%
Vocational status				
Employee	46	13.29	53	18.79
Public servant	10	2.89	27	9.57
Student	109	31.50	146	51.77
Self-employed	102	29.48	9	3.19
Unemployed	79	22.83	47	16.67
Education				
High school	290	83.82	196	69.50
Some college	56	16.18	86	30.50
Race				
White	---	---	189	67.02
African American			46	16.31
Others			47	16.67
Ethnicity				
Hispanic	---	---	30	10.64
Non-hispanic			252	89.36

## 4.2. Factor analysis

Latent factors of social capital were examined by exploratory factor analyses in SPSS 22.0. For the U.S. sample, five latent factors were extracted using the criteria that the eigenvalue was greater than 1. VARIMAX(orthogonal) rotation was used in order to extract factors that were not correlated to each other.

The first factor consisted of questions asking whether or not the respondent thought that multiculturalism makes life in the area better and whether or not the respondent enjoyed living among people of different lifestyles; thus, this factor was named “tolerance of diversity”(Cronbach’s  $\alpha = .72$ ). The second factor included items such as picking up rubbish in a public place or being willing to speak out about a common issue in the neighborhood. This factor, “proactivity in a social context”, demonstrated an acceptable reliability (Cronbach’s  $\alpha = .73$ ). The next factor, “participation in the local community”, involved

questions asking whether or not the respondent was an active member of a local organization or attended a local community event (Cronbach’s  $\alpha = .75$ ). Another dimension was the latent factor “safety and trust.” This factor was related to feelings of being safe walking down the street after dark and being able to agree that most people can be trusted (Cronbach’s  $\alpha = .60$ ). Finally, the item “value of life” was treated as an independent factor.

The same steps were taken with the Korean sample. Using the criteria of the eigenvalue exceeding one and VARIMAX rotation produced five uncorrelated latent factors. Among five factors, three factors overlapped with the results of the American sample. “Participation in the local community”, “safety and trust”, and “proactivity in a social context” emerged in the analyses with high reliabilities(Cronbach’s  $\alpha = .90, .88$ ; the last factor included a single item). Two unique factors, “work connections” and “neighbor-

hood connections”, appeared only for the Korean sample. The former one included questions regarding whether or not the respondents felt as if they were part of a team at work, whereas the latter factor involved items that asking if the respondent would rely on a neighbor for help. Both factors demonstrated high reliabilities(Cronbach’s  $\alpha = .87$  and  $.85$  respectively). In sum, the results provided the answer for the first research question. Five latent factors constituted social factors of each country; three of them were common, and the remaining two were unique to each group.

Common factors were compared by conducting a series of independent sample t tests <table 2>. The means of two factors, “proactivity in a social context” and “safety and trust”, were significantly higher in the U.S. sample( $t = -7.76, p < .01$ ;  $t = -4.99, p < .01$ ). On average, citizens in America reported to have been more proactive in social contexts and to have felt higher feelings of safety and trust in their neighborhood. In contrast, Korean citizens reported to have more actively participated in the local community( $t = 13.07, p < .01$ ).

**Table 2.** Descriptive statistics of factors for Korean and American citizens.

	Korea (N=346)		U.S. (N= 282)		t-test
	Mean	SD	Mean	SD	
Social capital factors					
Proactivity	3.63	0.88	4.15	0.75	-7.76**
Participation	4.11	0.67	3.12	1.13	13.07**
Safety and trust	2.79	0.92	3.14	0.83	-4.99**
Value of life	---		2.36	1.25	---
Neighborhood relations	3.64	0.88	---		---
Work connections	2.70	0.84	---		---
Diversity	---		3.68	0.88	---
Satisfaction with police	3.12	0.58	3.58	0.68	-9.10**

Note: \* $p < .05$ , \*\*  $p < .01$

### 4.3. Multivariate analysis

Multivariate analyses were used to examine the influence of unique and common factors of social capital on the level of satisfaction with police. <Table 3> displays the results of the multiple regression analyses.

As predicted, the factors of social capital were positively correlated with higher levels of satisfaction for the U.S. sample. American respondents who were more proactive, participated more in the local community, and felt a greater amount of safety and trust were more satisfied with the police. Tolerance to diversity and value of life were not significant predictors of citizen satisfaction. Among the five latent factors that were included in the model for the Korean sample, two factors appeared statistically significant. However, only one factor, “safety and trust”, was found to

be in the predicted direction. The factor “participation” was negatively associated with greater levels of citizen satisfaction. Korean citizens who felt a higher level of safety and trust and participated less in their community reported a higher level of satisfaction. Other factors including “proactivity” and “neighborhood/work connections” did not significantly influence the level of satisfaction.

The three common factors did not appear to have a consistent effect on the satisfaction levels in both samples; an exception is the “safety and trust” factor. Proactivity in the social domain was a significant predictor in the U.S. sample, but it did not show the same effect in the Korean sample. Participation in the community had an opposite effect for the two countries: it was positively correlated with the satisfaction level in the U.S., whereas it was negatively associated with

satisfaction in Korea. The equality-of-coefficient test indicated that these estimates significantly differed ( $z = 3.96, p < .01$ ). The effects of the other two factors did not significantly differ across groups (proactivity:  $z = 1.56, ns$ ; safety and trust:  $z = 1.14, ns$ ).

Similarities and differences were also found in the effects of the control variables. Significant predictors of citizen satisfaction included gender and age in the U.S. sample. Male and younger respondents were generally more satisfied with police. In contrast,

the level of satisfaction was influenced by age, vocational status, and education level in Korea. In general, older respondents with lower levels of education were more satisfied. The effects of control variables were significantly different across countries (gender:  $z = -2.02, p < .05$ ; age:  $z = -5.01, p < .01$ ; vocational status:  $z = 5.01, p < .01$ ; education level:  $z = 4.77, p < .01$ ).

**Table 3.** Results of multivariate regression analyses of citizen satisfaction on social capital factors and control variables.

	Korea (N=346)			U.S. (N= 282)		
	b	SE	$\beta$	b	SE	$\beta$
Social capital factors						
Proactivity	.04	.03	1.21	.14	.05	2.53*
Participation	-.13	.04	-3.27**	.08	.03	2.26*
Safety and trust	.11	.04	3.07**	.18	.05	3.87**
Value of life		---		-.01	.03	-.46
Neighbor relations	-.07	.04	-1.84		---	
Work connections	.02	.04	.49		---	
Diversity		---		.05	.05	1.22
Demographic variables						
Gender (male =1)	.05	.06	.77	.24	.08	3.20**
Age	.21	.05	4.19**	-.08	.03	-2.76**
Vocational status	-.58	.10	-5.58**	-.03	.03	-1.03
Education level	-.84	.16	-5.31**	-.06	.04	-1.35
R <sup>2</sup>		.17			.24	

Note: \* $p < .05$ , \*\*  $p < .01$

## 5. Discussion

Guided by the suggestion of Onyx and Bullen (1998) to utilize a multifactorial approach, the current study sought to identify the factors of social capital and their association with the levels of citizen satisfaction with police. Such an approach is useful in exploring different dimensions of social capital and different influences of each dimension in various communities. The results answered the first research question. Five latent factors constituted social factors of each country; three of them were common, and the remaining two were unique to each group. The three common factors largely

resemble the dimensions of social capital identified by Narayan and Cassidy (2001)[36]. They listed out dimensions of social capital that had been found to be significantly related to the outcome variables in five previous studies. Among various factors, “trust and membership” was found to be important in almost every study. The next most common factors were “safety”, “connection with family and friends”, and “social proactivity”. These dimensions resemble the factors commonly found in both countries in the current study, which are “activity”, “participation”, and “safety and trust.” Finding similar factors in the current study seems to add robustness to the

argument that these factors are important across different cultures.

The “safety and trust” factor, in particular, was the strongest predictor in both countries. The factor consisted of questions asking if one’s area had a reputation for being a safe place or if one felt safe walking down the street after dark. Even though the role of police could differ across time and place, improvement of public safety has almost always been considered as an essential job of police. Indeed, a study of police performance and satisfaction found that people thought friendliness, politeness, and helpfulness of police were more closely related to satisfaction than investigative skill and crime prevention; at the same time, people still thought investigative skill and crime prevention were more important than friendliness and politeness[26]. The “safety and trust” factor has also appeared as a significant predictor of police effectiveness[37]. Among the three common factors, “safety and trust” seems to deserve particular attention as it is related to the area that can be improved by police work.

As opposed to the social capital factors, the demographic variables did not show consistent effects across samples. Age was found to be positively related with satisfaction level in the Korean sample. This result is in line with the findings of existing studies in which police are generally seen as restricting personal freedom for younger people and are also seen as providing protection and keeping order for older people, leading to higher satisfaction [33][38][39]. Previous researchers have found an inconsistent effect of gender, race, and income. The effects of these variables often have been rendered less important once other community-related variables were included in subsequent analysis [24][33][38][40]. Our analysis revealed similar results. Gender, vocational status, and education were significant in both of our samples. Nevertheless, it should be noted that we were not able to determine a racial effect because race was a constant—not a variable—in the Korean sample. Although race was found to be less important

compared to neighborhood characteristics and citizen perceptions in several studies, other studies have found the opposite[41][42], and future research should continue to include race in models.

Social capital has drawn substantial attention due to its role in reducing social costs, increasing organizational solidarity, and enhance support and participation of citizen in community. Satisfaction with public service has also received much attention in terms of research and policy. Among various types of public services, satisfaction with police deserves continued attention and efforts related to its analysis and improvement. Higher satisfaction with police has been empirically associated with more willingness to follow the law, decreased recidivism, and willingness to provide assistance to police by actively engaging in neighborhood prevention and crime reporting[25][43]. Given the limited amount of police resources, findings of the present research can provide useful information in determining the roles on which police should focus to increase satisfaction.

## 6. References

### 6.1. Journal articles

- [2] Frank J & Smith BW & Novak KJ. Exploring the Basis of Citizens Attitudes toward the Police. *Police Quarterly*, 8(2), 206-228 (2005).
- [3] Kaminski R & Moon B & Zager LJ. Police Officers Attitudes toward Citizen Support: Focus on Individual Organizational and Neighborhood Characteristic Factors. *An International Journal of Police Strategies & Management*, 30(3), 484-497 (2007).
- [4] Murphy K & Hinds L & Fleming J. Encouraging Public Cooperation and Support for Police. *Policing & Society*, 18(2), 136-155 (2008).
- [5] Reisig MD & Parks RB. Experience Quality of Life and Neighborhood Context: A Hierarchical Analysis of Satisfaction with Police. *Justice Quarterly*, 17(3), 607-630 (2000).
- [6] Schafer JA & Huebner BM & Bynum TS. Citizen Perceptions of Police Services: Race



- Neighborhood Context and Community Policing. *Police Quarterly*, 6(4), 440-468 (2003).
- [7] Dai M & Johnson RR. Is Neighborhood Context a Confounder? Exploring the Effects of Citizen Race and Neighborhood Context on Satisfaction with the Police. *Policing: An International Journal of Police Strategies & Management*, 32(4), 595-612 (2009).
- [8] Wu Y & Sun IY & Triplett RA. Race Class or Neighborhood Context: Which Matters More in Measuring Satisfaction with Police? *Justice Quarterly*, 26(1), 125-156 (2009).
- [9] Van Ryzin GG. Pieces of a Puzzle: Linking Government Performance Citizen Satisfaction and Trust. *Public Performance & Management Review*, 30(4), 521-535 (2007).
- [10] Hanifan LJ. The Rural School Community Center. *Annals of the American Academy of Political and Social Science*, 67, 130-138 (1916).
- [11] Coleman JS. Social Capital in the Creation of Human Capital. *American Journal of Sociology*, 94, 95-120 (1988).
- [13] Putnam R. Tuning in Tuning Out: The Strange Disappearance of Social Capital in America. *Political science & politics*, 28(4), 664-683 (1995).
- [14] Nahapiet J & Ghoshal S. Social Capital Intellectual Capital and the Organizational Advantage. *Academy of Management Review*, 23(2), 242-266 (1998).
- [16] Paxton P. Is Social Capital Declining in the United States? A Multiple Indicator Assessment. *American Journal of Sociology*, 105(1), 88-127 (1999).
- [17] Keele L. Macro Measures and Mechanics of Social Capital. *Political Analysis*, 13, 139-156 (2005).
- [18] Morenoff JD & Sampson RJ & Raudenbush SW. Neighborhood Inequality Collective Efficacy and the Spatial Dynamics of Urban Violence. *Criminology*, 39(3), 517-558 (2001).
- [19] Sampson RJ & Raudenbush SW & Earls F. Neighborhoods and Violent Crime: A Multi-level Study of Collective Efficacy. *Science*, 277, 918-924 (1997).
- [20] Knack S & Keefer P. Does Social Capital Have An Economic Payoff? A Cross-country Investigation. *The Quarterly Journal of Economics*, 122(4), 1251-1288 (1997).
- [21] Webb VJ & Marshall CE. The Relative Importance of Race and Ethnicity on Citizen Attitudes towards the Police. *American Journal of Police*, 14(2), 45-66 (1995).
- [22] Murphy DW & Worrall JL. Residency Requirements and Public Perceptions of the Police in Large Municipalities. *An International Journal of Police Strategies & Management*, 22(3), 327-342 (1999).
- [23] Onyx J & Bullen P. Measuring Social Capital in Five Communities. *The Journal of Applied Behavioral Science*, 36(1), 23-42 (2000).
- [24] DeHoog RH & Lowery D & Lyons WE. Citizen Satisfaction with Local Governance: A Test of Individual Jurisdictional and City-specific Explanations. *The Journal of Politics*, 52(3), 807-837 (1990).
- [25] Skogan WG. Citizen Satisfaction with Police Encounters. *Police Quarterly*, 8(3), 298-321 (2005).
- [26] Cheurprakobkit S & Bartsch RA. Police Performance: A Model for Assessing Citizens Satisfaction and the Importance of Police Attributes. *Police Quarterly*, 4(4), 449-468 (2001).
- [27] Rhee YN. Organizational Social Capital and the Role of Public Relations: An Exploratory Study of the Interrelationships among Organizational Communication Trust Norm and Identification. *Korean Journal of Advertising Research*, 9(4), 46-70 (2007).
- [28] Park S. Organizational Social Capital in the Creation of New Intellectual Capital. *The Korean Journal of Human Resource Development Quarterly*, 2(1), 171-203 (2000).
- [29] Park H & Kim M. A Study on Promoting Social Capital in Local Community. *Korean Political Science Research*, 34(4), 219-237 (2000).
- [30] So J. Toward Developing Social Capital Indicators. *Journal of the Korean Regional Development Association*, 16(1), 89-117 (2004).
- [31] Kim S. Social Capital and Crime: The Effects of Social Capital on Violent Crime in Korea. *Journal of Korean Public Police and Security Studies*, 9 (1), 1-25 (2011).
- [32] Park H & Kim J. An Analysis on the Influence of Social Capital Affecting Civil Satisfaction and Community Spirit. *Journal of Korean Association for Governance*, 19(3), 47-66 (2012).

- [33] Hwang EG & McGarrell & Benson BL. Public Satisfaction with the South Korean Police: The Effect of Residential Location in a Rapidly Industrializing Nation. *Journal of Criminal Justice*, 33(6), 585-599 (2005).
- [34] Park SY. The Research on Influential Factors on Police Service Customer Satisfaction. *Korean Police Studies*, 11(1), 105-128 (2012).
- [35] Lee J& Lee S. Newly Developed Quality Evaluation Model on Public Service. *Journal of Korean Association for Public Management*, 23(1), 1-32 (2009).
- [36] Narayan D & Cassidy MF. A Dimensional Approach to Measuring Social Capital: Development and Validation of a Social Capital Inventory. *Current Sociology*, 49(2), 59-102 (2001).
- [37] Hawdon J & Ryan J. Police-resident Interactions and Satisfaction with Police: An Empirical Test of Community Policing Assertions. *Criminal Justice Policy Review*, 14(1), 55-74 (2003).
- [38] Kusow AM & Wilson LC & Martin DE. Determinants of Citizen Satisfaction with the Police: The Effects of Residential Location. *An International Journal of Police Strategies & Management*, 20(4), 655-664 (1997).
- [39] Reisig MD & Correia ME. Public Evaluations of Police Performance: An Analysis across Three Levels of Policing. *An International Journal of Police Strategies & Management*, 20(2), 311-325 (1997).
- [40] Correia ME & Reisig MD & Lovrich NP. Public Perceptions of State Police: An Analysis of Individual-level and Contextual Variables. *Journal of Criminal Justice*, 24(1), 17-28 (1996).
- [41] Garcia V & Cao L. Race and Satisfaction with the Police in a Small City. *Journal of Criminal Justice*, 33(2), 191-199 (2005).
- [42] Van Ryzin GG & Muzzio D & Immerwahr S. Explaining the Race Gap in Satisfaction with Urban Services. *Urban Affairs Review*, 39(5), 613-632 (2004).
- [43] Paternoster R & Brame R & Bachman R & Sherman LW. Do Fair Procedures Matter? The Effect of Procedural Justice on Spouse Assault. *Law and Society Review*, 31(1), 163-204 (1997).

## 6.2. Books

- [12] Putnam R. Making Democracy Work: Civic Tradition in Modern Italy. Princeton University (1993).
- [15] Putnam R. Bowling Alone: The Collapse and Revival of American Community. Simon and Schuster (2001).

## 6.3. Additional references

- [1] OECD. Government at a Glance (2016).

### Lead Author

**Park Sun-young** / Mokwon University Professor  
 B.A. Korean National Police University  
 M.A. Korea University  
 M.A. GRIPS Japan  
 Ph.D. Korea University

### Research field

- The Relationship between Police Social Capital and Police Job Performance, *Korean Police Studies Review*, 14(3) (2015).
- The Social Capital in Police System, *Police Science Journal*, 11(1) (2016).

### Major career

- 2005~2009. Korean National Police Agency
- 2009~present. Mokwon University, Professor

### Corresponding Author

**Park In-sun** / University of Cincinnati Center for Criminal Justice Research  
 B.A. Korean National Police University  
 M.A. Seoul National University  
 Ph.D. University of Cincinnati

### Research field

- A Longitudinal Test of Self-control and Peer Influence on Juvenile Delinquency, *Korean Journal of Public Safety and Criminal Justice*, 25 (2016).
- The Effect of the Maturity Gap on Delinquency and Drug Use Over the Life Course A Genetically Sensitive Longitudinal Design, *Journal of Criminal Justice*, 47 (2016).

### Major career

- 2010~present. Korean National Police Agency
- 2013~present. University of Cincinnati CCJR, Research assistant

Publication state: Japan  
ISSN: 2423-8279

Publisher: J-INSTITUTE  
Website: <http://www.j-institute.jp>

Corresponding author  
E-mail: [shj1026@gmail.com](mailto:shj1026@gmail.com)

Peer reviewer  
E-mail: [editor@j-institute.jp](mailto:editor@j-institute.jp)

<http://dx.doi.org/10.22471/police.2017.2.1.42>

© 2017 J-INSTITUTE

## Study of Major Issues of Introduction of KOREAN Clare's LAW and of Improvement Measures for the Public Security Policies

Shin Hyun-joo

*Catholic Kwandong University, Kangneung, Republic of Korea*

### Abstract

*Problems such as murders due to violence among couples, so-called 'Dating Abuse', have recently come to the front. Accordingly, the police organized a task-force, holding an intensive reporting period. However, low reporting rate due to the particularity in their relationship as a couple, and the severity of damages have been only passively managed by investigation agencies and such conditions have been criticized as it seems to influence on the development of violent crimes, at last. For preparation of more effective measures, Clare's Law in England is being considered to be introduced in KOREA. However, it is producing active arguments as it causes violation of personal information, collisions with other legislations. Thus, the thesis would study deeply observe the main issues and implications in relation with Clare's Law, as well as improvement measures for the public security. Thus, this study would observe major issues surrounding Clare's Law and their implications, and investigate further improvement measures for public security policies. As a result of an investigation, a protective custody order, prevention of second crime conviction through cooperations and improvement on related legislations by practicing active responses by investigation agencies are suggested.*

**[Keywords]** *Dating Abuse, Clare's Law, Public Security Policy, Stalking, Domestic Violence.*

### 1. Introduction

Recently, in Korea, violence among couples, so-called 'Dating Abuse', has drawn attention of people changing from a private to a social problem as its severity has intensified. According to the announcement by the National Police, the total number of Dating Abuse in 2015 was 7,692 having 2,306 injuries, 3,670 assaults and 102 murders[1]. Hence, the police established a 'task-force for elimination of Dating Abuse' at all police stations throughout the country for a month since February 3, 2016, and held an intensive reporting period, as a result, 898(61 restraints) were arrested for criminal charges among 1,279 cases reported[1].

Violence among married couples in Korea has been strictly responded, revolving around

victims, being defined as 'Domestic Violence'. On the other hand, violence among unmarried couples has been lightly perceived, as a merely private love quarrel between the people directly involved, hence, only if actual damages occur, criminal punishments were implemented, leading to insufficient and un-systematic responses such as protection of victims and precautionary damage prevention[2]. Due to the particularity of the couple relationship, low reporting rate is a problem and even if a report is made, the passive and soft responses by investigation agencies upon the severity and seriousness of the violence often lead to development of violent crimes[3].

There is no specified punishment regulations for Dating Abuse, hence, claims to enact

a Special Law for effective measures on Dating Abuse are being addressed. Particularly, introduction of so-called Clare's Law being implemented in England is being proposed by the police. Unlike other crimes, Dating Abuse is a violence occurring within a close relationship, hence possibility of recurrence is high and even there is a probability of inducing murders. Therefore, urgency of government intervention on the issue has been acknowledged, however, legislative practices for a preventive implementation is in controversy due to a probability of indiscriminate access to private information. Hence, the causality of Dating Abuse and its real conditions should be monitored for a further research of improvement measures of the public security policies, taking care of major issues and implications of Clare's Law introduction.

## **2. Theoretical Background**

### **2.1. Concept of dating abuse and its cause**

The conceptual definition of Dating Abuse is still ambiguous. It is not a legislative terminology and is being quoted along with other descriptive terms such as violence among close partners and violence in a relationship. Generally, it refers to comprehensive violences including physical, emotional, verbal or sexual violence occurring, in unmarried couples, but in a dating relationship, that is intentionally committed to harm the others unilaterally by a member of the relationship without any mutual agreement[3]. The Korean National Police has been using the terminology meaning, 'commitment of violent behaviors conducted by the other during a process of conflict between a male and a female of an unmarried couple.' through a news release[1].

For the reasons of such Dating Abuse, first, it is Social Learning theory. Those, who had experienced violent learning at young ages, have higher degree of violence and have higher likelihood of being involved in various types of violence[4]. Hence, the people who had suffered from an abuse at their childhood end up believing that any physical or mental

assault to solve problems in conflicting situations with a close acquaintance is completely fine, and perform such behaviors in other similar circumstances[5]. Moreover, there is another research result that the frequency to experience Dating Abuse is higher for those who had experienced ignorance from their parents[6]. In addition, it is Sex Role stereotype. That is, linking personal features of individuals to social categories of genders, female and male, hence, males are expected to be dominant, self-assertive, independent and competitive, while females are expected to be kind, affective and cooperative.

### **2.2. Present state of dating abuse occurrence and responses to the violence**

For establishing the public security policies responding to Dating Abuse, approaches are seemed to combine criminal responses and administrative support model in general and have civil response model as an auxiliary tool. Criminal responses, among the measures, include an active government intervention upon Dating Abuse, like other general crime cases, and request for performances of an investigation, a prosecution, a court of justice and a punitive punishment. Therefore, an appropriately proportional responsibilities are imposed to criminals and the public order remains secured eventually[7].

As there is no direct punishment regulation for Dating Abuse, at the present state, it is dealt with as equally as other normal violences. Thanks to the newly determined law in 2012 against Stalking crimes, a penalty under 100,000 won, detention or a fine can be sentenced. However, as the level of punishment is extremely minor and doubts upon its juridical efficacy or effectiveness are being raised, hence, a pragmatic and effective bill is required[8].

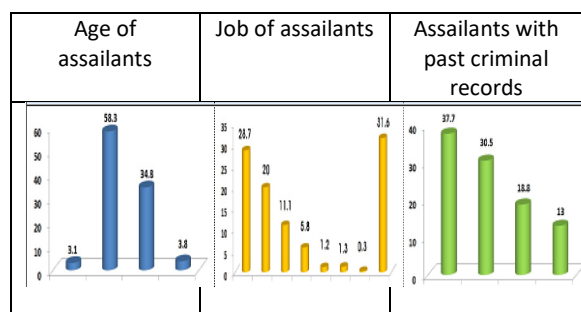
Based on the data from the National Police, the current state of Dating Abuse over the past 5 years as follows as <Table 1>. Injuries and assaults have occurred the most frequently and even murders are being committed many times. Although the actual number of occurrences have been presented similar levels, the severity of violence has become gradually atrocious.

**Table 1.** State of violence among couples by year[9].

Year	Total	Injury	Assault	Violation of law of punishment for an act of violence	Murder	Rape indecent assault
2011	7,292	3,074	2,633	1,068	127	390
2012	7,584	3,028	2,822	1,226	99	409
2013	7,237	2,571	2,848	1,179	106	533
2014	6,675	2,273	2,702	1,109	108	483
2015	7,692	2,306	3,670	1,105	102	509

Accordingly, the Police created a ‘special task-force to eliminate Dating Abuse’ for a month since February 3, 2016 to March 2, and 868(91 datains) were arrested for criminals charges among 1,279 reports received in total throughout the country within the intensive reporting period. Most of the ages of assailants were 20s and 30s, who have no job(27.1%), is a company employee(21.4%) and have private business(10.9%) in order. 41.4% had no previous criminal record and 58.9% was ex-convicts, more than who are not an ex-convict. 11.9% was the ones who have more than 9 past criminal records.

**Figure 1.** Current state of assailants of dating abuses[9].



Most of the victims are females(92%) and even male victims(4.1%) were identified. The types of harm or damage consist of assault, injury(61.9%),arrest, confinement, intimidation(17.4%), sexual violence(5.4%) and 2 attempted murders. The majority of the damage reports were via 112 reporting calls(77%).

It is undoubtedly true that the victims have been presenting passive attitudes to ask for help or to report as they have recognized their issue as a private matter hence should be personally dealt with. Therefore, the Police established various windows for reports and actively promoted such windows so that victims can conveniently report their issue at any time and place.

### 2.3. Receding researches analysis

Referring to a study conducted upon Korean university students regarding any experience of Dating Abuse, 73.3% had an experience of Dating Abuse in any form, and mental, physical and sexual violences were 70.2%, 44.8% and 13.2% respectively – signifying the severity of Dating Abuse among university students is high and serious[10]. In the most advanced studies, researches of ‘Stalking Prevention Law’ is intensively being addressed as a precautionary preventive measure based on discussions of psychological and social etiology, having types and forms of Dating Abuse focused. On the other hand, there is insufficient and little researches of improvement measures of the public security policies and of crime prevention in association with particularity of the crime, Dating Abuse.

In the post-1990s, the American society recognized the seriousness of Dating Abuse, prepared Protection Order, enacted Stalking Prevention Law, and has been dealing with protection of violence victims and preventing Dating Abuse actively[3]. In Germany, under

the principle of 'Assailants should leave and victims should stay at home', multiple measures are being operated to protect women from violence, including Domestic Violence, against them[8].

### **3. Major Contents and Implications of Clare's Law Introduction in England**

The most attentive issue, recently, considering Dating Abuse is 'Clare's Law', a 'Domestic Violence disclosure Scheme(DVDS)' in England. In 2009, a woman called Clare Wood had suffered from violence and even had been murdered by her boyfriend who met via an Internet Dating web-site. This man was an ex-convict who assaulted his girlfriend in his past. A signature seeking campaign to enable identification of violent crime history among couples was held as people believed that the death of Clare could have been prevented if the ex-convict of the assailant could have been identified and informed. As a result Clare's Law was introduced in 2014 and actual numbers of Farewell-murder or Dating Abuse occurrences decreased. Due to the issue, a report, 'Tackling Perpetrators of Violence against Women and Girls' was announced in the 2009 conference of the chief of the National Police Agency. The main feature of the report is that potential victims from Domestic Violence should be able to acquire related information to protection from the state for protecting their children and themselves[11].

Based on the report, a public hearing was held, and its main contents was 'right to ask' offering potential victims the rights to request the police for ex-convicts information of potential assailants and 'right to know', making the police provide ex-convict information to potential victims in advance[12]. Such provision of ex-convict data has been addressed as it enables potential victims to avoid crimes on their own – contributing to prevention of crimes – at the same time, allows reinforced precautionary measures by related institutions. However, the police has claimed for doubts and skeptical perspectives upon why such a new system should be introduced while disclosures of ex-convicts by the

police have been already set available. Integrating the contents, the Department of the Interior demonstrated the system in some regions and formally introduced the system in England and Wales in 2014 thanks to the confirmation of effectiveness of the system[13].

A system that the police can utilize in its process of disclosing ex-convicts of violence and abuse in the past of potential partners was established. This system is assumed to be able to protect victims from possible violence and abuse in the future[14]. Observing in procedure details, a request of information based on the 'right to ask' will involve three step evaluations and, at last, will be responded after an examination of the request by local decision-making forum. Disclosures of ex-convicts information based on the 'right to know' is a practice to be performed by the police when potential victims are identified to be exposed to direct dangers, allowing the local decision-making forum to decide whether the disclosure is essential or not[13].

The English DVDS has been proposing many implications. Concentrating on the risk management through disclosure and sharing ex-convict information among related institutions, hence there has been no law newly enacted. Furthermore, in the current Korean criminal justice system, it is inevitable for prosecutors not to be involved, hence, imposing a corresponsive measure to the level of crime is difficult and a rapid and effective measure to protect victims is disturbed[15].

### **4. Improvement Measures of Security Policies Surrounding Introduction of Korean Clare's Law**

#### **4.1. Active responses by agencies and reinforcement of responsive capability**

To ensure security of victims, various and rapid reporting windows should be prepared and separation or eviction of assailants should be executed. The police should identify the need of protection at the most priority as soon as a report is received, and if it is need, a rapid protection measure should be practiced and anonymity of the reporter should be guaranteed[3].

For a perfect and invulnerable protection, considering any possible situation of the victim and any risk of second conviction, different but simultaneous and complementary protection measures should be performed – for example, reinforcement of patrol in residential areas and provision of protective facilities – and regular inspections to eliminate blind spots of protection should be involved so that a safe environment of the victims to live is maintained even after the end of incident investigation[1]. In most Dating Abuse cases, they are unlikely to be indicted, and even they are, no criminal punishment is sentenced in general. Thus, protection, more than what criminal indictment entails, should be performed. This is because most of assailants of Dating Abuse cases are aware of the residential location, workplace and schools, hence secondary damages are more likely to occur in a large extent, compared to other types of crime[16].

#### **4.2. Actualization of public security policy via cooperations**

Overall conflicts among couples which are likely to develop into violent crimes should be managed even since the phase of case reception, cooperatively dealt with among related departments and should be organically handled so that any secondary damage can be prevented. In addition, arranging a female police officer who is expert in counselling to form a stable counselling atmosphere with female victims and a responsible officer for victims who will offer economic, psychological and legislative support to the victims is essential, as well as collaboration among different departments. Especially, through a consistent monitoring with establishment and utilization of contact network among the special taskforce, victims and reporters, preventive movements for secondary crimes will necessarily be developed[1].

### **5. Discussion and Conclusion**

The objective of this thesis is to discuss improvement measures for public security policies and the present state of Dating Abuse, a social issue recently addressed. Yet, there is

no related law in Korea, hence, it is difficult to define an exact notion of Dating Abuse. Furthermore, Dating Abuse occurring among couples has a similar mechanism to Domestic Violence, hence, the reporting rate is low and even the recognition of such violence as a crime is not admitted. Even if a report is made, due to the weak and insufficient regulations, capabilities of investigation institutions to deal with the cases are considerably inadequate.

Thus, analyzing the implications of ‘Clare’s Law’ being discussed in England of an actual introduction, a few improvement measures would be suggested for public security policies. First, it is reinforcing the responsive capability and second, practicing precautionary prevention measures for second convictions of crimes by cooperating with other departments. Lastly, there is a need of improvements of laws that is directly related to Dating Abuse. DVDS in England consists of contents – right for potential victims who are encountering crimes to request for ex-convict information of potential assailants to the police based on ‘right to ask’ and provision of ex-convict information to potential victims in advance based on ‘right to know’ Examining the statistics in Korea, it is assumed that murders occurring among couples can occur in a form of an ex-convict killing its lover. Hence, providing ex-convicts information of potential assailant to potential victims is a reasonable tool for an effective crime prevention[13]. However, conflicts among the people directly involved, probability of crime occurrence due to the conflicts, acquisition of reliability for judgements of issues and social sympathy upon the range of privacy which the police can intervene into, should be the presupposed in advance to the cautious approaches[4].

### **6. References**

#### **6.1. Journal articles**

- [2] Yoon SM. A Consideration of Legislative Measures Counteracting the Dating Abuse. *Law Review*, 16(4), 301-319 (2016).

- [3] Park HJ. Study on the Risks and Improvements of Dating Violence. *Chosun Law Journal*, 22(2), 499-521 (2015).
- [4] Kang YG & Park JP & Park WK & Lee CS. A Study on the Prevention of Date Violence and the Issues of Response. *Police Science Institute*, 30(1), 175-216 (2016).
- [5] Yoon J & Yang SY & Park BK. The Influence of Domestic Violence Patriarchal Gender Role Attitude, and Inferiority Complex on Acceptability of College Dating Violence. *Korean Journal of Youth Studies*, 19(6), 79-107 (2012).
- [6] Straus MA & Savage SA. Neglectful Behavior by Parents in the Life History of University Students in 17 Countries and its Relation to Violence against Dating Partners. *Child Maltreatment*, 10(2), 124-135 (2005).
- [7] Jung SJ. A Study on the Causes of and Countermeasures against Domestic Violence. *Korean Association of Public Safety and Criminal Justice Review*, 63, 207-237 (2016).
- [8] Kim SH. A Study on Punishment of Dating Violence. *Chungang Journal of Legal Studies*, 40(3), 141-169 (2016).
- [10] Kang HK. The Myth of Family Violence and Dating Violence among College Students. *Korean J Youth Study*, 14(6), 21-41 (2007).
- [13] So BD. Introducing the Domestic Violence Disclosure Scheme. *The Journal of Police Science*, 16(2), 61-86 (2016).
- [15] Jung SJ. A Study on the Causes of and Countermeasures against Domestic Violence. *Korean Association of Public Safety and Criminal Justice Review*, 63, 207-237 (2016).
- [16] Ryu BK. The Protection System for the Victims in Dating Violence. *The Journal of Legal Studies*, 22(3), 91-114 (2014).
- [12] Home Office. Domestic Violence Disclosure Scheme a Consultation: Summary of Responses (2012).
- [14] Home Office. Domestic Violence Disclosure Scheme DVDS Guidance (2016).

<p><b>Author</b>  <b>Shin Hyun-joo</b> / Catholic Kwandong University Assistant Professor          B.A. Kwandong University          M.A. Kwangwoon University          Ph.D. Kwangwoon University</p> <p>Research field          - A Study on Humanities in Application of Robot Technology Based on the Criminal Justice System, <i>Journal of Korean Public Police and Security Studies</i>, 13(4) (2017).          - Humanistic Response to Crime Prediction and Human Free Will, <i>Korean Criminal Psychology Review</i>, 13(1) (2017).</p> <p>Major career          - 2014~present. Korean Association for Criminal Psychology, Chief Manager          - 2017~present. Catholic Kwandong University, Assistant Professor</p>
---

## 6.2. Additional references

- [1] Korean National Police Agency Press Release (2016).
- [9] <http://www.police.go.kr/> (2017).
- [11] Association of Chief Police Officers. Tackling Perpetrators of Violence against Women and Girls: ACPO Review for the Home Secretary (2009).