



The Growth Experience of the Serial Arsonists

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Abstract

This study examines growth experience of arson offenders through records research and interviews with them. It found that a single parent family background due to parental divorce, death of a parent or other reasons was prevalent among arson offenders. In other words, a greater number of those offenders spent youth in single parent or grandparent-headed homes. Most of them from single or grandparent families tended to remember they had disturbed childhood. Under the unfavorable family environment, some of arson perpetrators experienced childhood abuse or neglect. This study also found that more than half of serial arsonists had relationship problems within the family and non-serial arsonist also had relationship problems. Another distinct characteristic of arson offenders was that they had no close friend. It could be translated that they had no one to rely on or get help when they faced unexpected problems and relationship issues.

The study looked into child abuse experience of serial arsonists in their families and learned that around ten percent of offenders reported child abuse. More serial arsonists were being abused in childhood than non-serial arsonists. Findings of the study indicate that impact of adverse growing-up experiences such as family problems, physical abuse, or running away from home extend into adulthood. Parenting environment as well as childhood abuse has a substantial impact on developing personalities and forming patterns of behavior toward certain problems. Furthermore, relationship within the family and support system last into adulthood and experience of running away from home in adolescence may deprive them of chances to build up social capital.

Keywords: Families; Interviews; Investigation

Abbreviations: FBI: Federal Bureau of Investigation; AFT: American Federation of Teachers; SCM: Salesio Catholic Monastery; CCM: Crime Classification Manual.

Introduction

In Korea, arson is practically classified as a felony by the National Police Agency. However, much less attention has been paid into it compared to other violent crimes, for example, murder or sex crimes. While arson causes

significant damage to property, bodily injury or death to persons and sometimes it results in much huge damage than the offender intends, few studies have been conducted on the issue and there are few experts in Korea. Considering the fact that most previous studies on arson reviewed the literature of other countries and empirical study is sparse, it is not an exaggeration that Korea is still at its infant stage when it comes to understanding more characteristics of arsonists. While arson causing enormous property damage shares some

characteristics of property crimes, it should be regarded as a violent crime considering motives for arson. In most cases, arsonist set fires in a fit of anger or sudden impulse rather than plan a fire setting in advance for specific purposes like financial gains.

Given the fact that arson offence entails violent characteristics, future studies should focus on them. This study examines growth experiences of serial arsonists among other characteristics. In the beginning, focus of criminological research was mainly put on the family structure. Over time, focus of studies has shifted to family functions such as relationship between parents and children and children's attitude towards their parents to prove effect of it on offenders. Widely accepted theories suggest that relationship among family members have greater impact on offenders than the family structure, for example, a single parent home. Particularly, what the offenders experienced in the family in childhood is likely to have the greatest influence on their adult life and well extended into adulthood. This study mainly explores family relationship of serial arsonists while growing-up and adverse childhood events like physical abuse or running away from home. The study examines childhood histories of serial arsonists to learn elements that they become an arson offender because it may very helpful to find out the most prominent characteristic of them [1-3].

Literature Review

Concept and definition of serial arson

The definition of arson is willful and malicious burning of property. Generally, arson means an act of setting fire with the intent to cause damage to other's property. In Korea, arson is defined as a crime against public safety by intentionally setting fire to building which any person uses as a residence, public building, structure or any other forms of property [4-6]. Fire burns out the subject that a person intends to destroy and, in its very nature, also can spread far more than an arson anticipated and cause significant financial cost. That explains why arson arouses great fear among the general public. In particular, if arson occurs in a row, social tension and fear about any possible damage increase to the extreme level. Generally, serial arson describes the intentional setting of fires in a repetitive manner, but there is no clear definition on 'serial'. At this point, it is required to examine how serial arson is defined.

'Crime Classification Manual: a standard system for investigating and classifying violent', published by the Federal Bureau of Investigation (FBI), subdivides arson

into several categories; single arson, double arson, triple arson, mass arson and serial arson based on the number of fire setting times and locations, and cooling-off period. Researchers authored the manual based on interviews with convicted offenders. In the manual, serial arson is defined as an offense involving three or more fires with a significant cooling off period between the fires. The exact length of this cooling off period is unknown and the cooling off period may last days, weeks, or even years. Serial arsonists randomly select victims and gaps between incidents are not predictable. In addition, there is no separate or distinct motive for setting fires. Park defines serial arson as an offense involving three or more fires and the most serious type of arson due to the apparent random selection of victims, unpredictable gaps between incidents and no separate or distinct motive for setting fires. In research on serial arsonist, Choi & Choi said that serial arson refers to three or more incidents of arson taking place in different locations with a cooling-off period in between. Serial arsonists set fires to take joy or thrill. Serial arsonists, like serial murders, grow bolder and cruel as time goes and arson turns to a serious crime [7,8].

Edward and Grace, who studied on distance between serial arsonist's home and location of incident from 1998~2003, and Kocsis & Cooksey, who classified types of serial arson, defined 'serial arsonists' as offenders who set fires repeatedly more than 3 times. Another research on female serial arsonists described those who commit arson offence more than five times as serial arsonists. Kim regarded those who set fire more than two times as serial arsonists. This study found that the concept of 'serial' differs among researchers depending on focus of research. The differences could be explained with numerous reasons. First it is hard to define the meaning of serial largely because of vague standard on number of fire setting and cooling-off period between the fires. Second, in case of empirical studies which use only limited data, unpredictable variables are always entailed. In reviewing the literature on serial arson, this study concluded that relevant studies define serial arson as an offence involving more than two/three or more fires but the concept of 'serial' is determined by focus of research. In Korea, when arson crime occurs two or more times in a specific district, the investigation agency suspects a serial arson and prepares for repetition of it [9-13]. Considering the investigation guidelines of investigation authorities on arson cases in Korea, this study defines an offence involving two or more fire settings as serial arson and arsonists who set fires more than two times as serial arsonists.

Empirical Research on Characteristics of Serial Arsonists

General characteristics of serial arsonists

Comprehensive research on serial arson by AFT and FBI narrowed down profiling of serial arsonists and indicated that most of them were white (82%), male (94%), and unmarried (65.9%). More than half of them were laborers. Two-thirds described themselves as middle class and one-third as lower middle class. About half indicated they came from dysfunctional families. The most common type of residence was a single family house (42.9%), followed by apartment (23.8%). According to research on serial arsonists in Korea, among 25 serial arsonists, 22 were male and 3 were female and majority of them were aged between in their 20's and 30's. In terms of married status, a large proportion of offenders were single, and most of them were less educated. Majority of the offenders were unemployed. Even those with jobs worked temporarily in the service sector or menial labor type jobs [14,15].

For statistics on serial arsonists, most studies focused on patterns and behavior characteristics of male arsonists, so values on female arsonists were usually estimated based upon male. Male and female arson offenders showed differences in patterns and behavior in most cases, which suggests that different approaches may be, required for males and females arsonists. This suggestion means that more studies should be carried out focusing on only behavior characteristics of female arsonists. Wachi and his co-researchers conducted a survey on 83 female serial arsonists from the age of 14 to 78 in 2007 and found that the mean age was 37.6 years (standard deviation: 14.2) and they are between the ages of 14 and 78. The founding showed higher mean age of female serial arsonists than previous studies. Among female serial arsonists, around 41 percent completed compulsory education of elementary school and junior high school, school dropouts (7%), unemployed (43%) and unskilled labor (19%). The statistics indicated that the unemployment rate of female offenders was higher than that of male serial arsonists in Japan but female offenders showed similar profiling with their counterparts in terms of education level and unemployment rates [5,16]. 49 percent were married. While 25 percent of them lived alone, 29 percent lived together with parents.

Characteristics of serial arsonists while growing up

What they experienced in family while growing up seems to have a great impact on adulthood and linger on their memories long time. Correlation between criminal

behavior and family factors is evident in numerous criminological studies. In particular, early physical abuse in family was more likely to lead to subsequent delinquencies in late adolescence and early adulthood and recitation of Choi [3,17]. Physical abuse and verbal abuse (such as insult and severe criticism) by parents attributed to building unstable relationship in family which put juveniles under emotional stress and increased risk of committing crimes for them. Researchers proved correlation between early physical abuse and arson offences. A large number of juvenile arsonists had been exposed to violence in family. Furthermore, family problems, for example, parental alcoholism, parental mental illness, and absence of at least one parent due to divorce or separation were common among them. Juveniles with history of early sexual abuse were at higher risk of repeatedly setting fires and their fire setting is a kind of expression against their parents' aggressive behavior or violence. A study indicated that juveniles with history of fire setting displayed lower family affection than those with no record of arson offence recitation of Kolko & Kadin, [18-21].

Experiences of running away from home increase likelihood of committing crimes. A survey on juveniles who arrested for violent crime, theft, threat, etc. found that more than 30 percent of them frequently run away from home [15]. A longitudinal study on juveniles running away from home indicated that those with histories of running away from home were more likely to have substance abuse problems or to be depressed in the future than were others who never had run away from home [22]. Juveniles running away from home which in turn may lead to delinquencies increase risks of committing crimes [12,23]. According to a study that divided juveniles arrested for violent crime into two groups of recidivist offenders and one-time offenders, recidivists have much more histories of running away from home than their counterparts [24].

Method

Examination of investigation records

With the help of the Supreme Prosecutors' Office, we, authors of this study, gained the list of arson cases over the last ten years and sorted out cases that were suspected as serial arson offences. Then we asked district prosecutors' offices in charge of investigating those cases for allowing us to access to the investigation records and reviewed them. To identify characteristic of serial arson, it is required to examine non-serial arson cases at the same time, so we randomly selected non-serial arson cases from the list of arson cases based on the year when

suspected cases of serial arson occurred, district prosecutors' offices in charge, charges on offenders, etc. We visited district prosecutors' offices which store the investigation records on selected non-serial arson cases, coded the records on work sheet we prepared in advance and then reviewed them. The data collection period spanned over 2 months from June 20 to August 30, 2012. Except those records which were either sent to other district prosecutors' office or discarded because the retention period exceeded, total 410 investigation records on arson cases were collected and examined.

Interview

The Korea Correctional Service provided information on locations of 41 inmates who were suspected as serial arsonists. In advance, they were asked whether or not participate in the survey via correctional centers where they were detained. Interviews were carried out with 22 offenders who gave their consent to take part in the survey. Interviews were conducted in places which were available in those centers, such as counseling room, prison interview room or conference room. One-on-one interview was carried out with semi-structured interview template. The interview survey spanned for 2 months from August to September. Interviews were carried out in the presence of correctional officers and a research assistance documented inquiries and answers using a lap top. While interview lasted one hour to two hours and ten minutes depending on respondents, it took one and half hour on average.

Findings:

1. General characteristics of subject arsonists
2. Object of record examination

Serial nature of arson

For this study, investigation records of 410 arson cases were collected and examined. The number of fire setting per arsonist varied from 1 to as many as 33 times. This study defines an offence involving two or more fire settings as serial arson and arsonists who set fires more than two times as serial arsonists [13]. That is, of the 410 offenders examined, 262 were non-serial arsonists, meaning they committed arson once only. 148 (36.1%) were serial arsonists who set fires intentionally 2 times or more in Table 1.

Unit: No. of arsonists, %		
Non-serial/ serial	Frequency	Percentage
Non-serial arsonist	262	63.9
Serial arsonist	148	36.1
Total	410	100

Table 1: Serial nature of arson.

Social demographic characteristics of arsonists

With respect to social demographic characteristics of serial arsonists, male accounted for 93.2% (138 out of 148) and female took up 6.8% (10 out of 148) of all serial arsonists. The ratio was similar in non-serial arsonists with male accounting for 91.2% (239 out of 262) and female 8.8% (23 out of 262) only. With regard to age of arsonists at the time of the crime being committed, 28.4% were in their 30s followed by 23.0% in their 20s and 23.0% in their 40s, 11.5% in their teens or younger and 11.5% in their 50s, and 2.7% in their 60s. The mean age is 35.57 (standard deviation: 11.987). Meanwhile, in the case of non-serial arsonists, 32.1% were in their 40s followed by 19.1% in their 30s, 18.3% in their 50s, 13.4% in their 20s, 10.3% in their teens or younger, 5.7% in their 60s, and 1.1% in their 70s. The mean age was 40.36 (standard deviation: 14.315). In other words, while 60% or more were in their 30s or younger in the case of serial arsonists, some 43% of single arsonist were in their 30s or younger. Serial arsonists tended to be younger than non-serial arsonists ($\chi^2=18.018$, $df=6$, $p<.01$) [25].

Respecting serial arsonists' level of education, on the other hand, 39.9% (55 out 138) were high school graduates followed by 22.5% (31) elementary school graduates, 19.6% (27) middle school graduates, and 18.1% (25) university or graduate school graduates. In the case of non-serial arsonists, 39.3% were with high school diploma or lower, 28.6% were with middle school diploma or lower, 16.2% were with elementary school diploma or lower, and 15.8% were with university diploma or higher. That is to say, 22.5% of serial arsonists were without regular education at all or with less than elementary school diploma, forming the second largest group after those with high school diploma or lower of 33.9%. The percentage of serial arsonists with elementary school diploma (22.5%) was higher than that of non-serial arsonists with elementary school diploma (16.2%) Table 2.

Unit: No. of arsonists, %						
Division	Non-serial/ serial	Total				
	Non-serial	Serial				
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage

Gender	Male	239	91.2	138	93.2	377	92
	Female	23	8.8	10	6.8	33	8
Total	262	100	148	100	410	100	
	(df=1) $\chi^2=5.22$ n.s.						
Age	10s	27	10.3	17	11.5	44	10.7
	20s	35	13.4	34	23	69	16.8
	30s	50	19.1	42	28.4	92	22.4
	40s	84	32.1	34	23	118	28.8
	50s	48	18.3	17	11.5	65	15.9
	60s	15	5.7	4	2.7	19	4.6
	70s	3	1.1	-	-	3	0.7
Total	262	100	148	100	410	100	
(df=6) $\chi^2=18.018$ p<.01							
Level of education	Elementary school or lower	38	16.2	31	22.5	69	18.5
	Middle school or lower	67	28.6	27	19.6	94	25.3
	High school or lower	92	39.3	55	39.9	147	39.5
	University or higher	37	15.8	25	18.1	62	16.7
Total	234	100	138	100	372	100	
*Unknown (28 case of non-serial and 10 cases of serial arson)excluded	(df=3) $\chi^2=4.920$ n.s.						

Table 2: Serial arsonists' social demographic characteristics.

Interviewees

Those arsonists who agreed to be interviewed were all males. Of them 3 were in their 20s, 9 in their 30s, 4 in their 40s, 5 in their 50s, 1 in his 60s. With respect to their jobs, 4 did not have a job, 16 were day laborers, and 2 were skilled workers. With regard to their education, 6 were elementary school dropouts, 3 were middle school

dropouts, 1 was middle school graduate, 2 were high school dropouts, 4 were high school graduates, and 5 were from junior college or higher education institutions. Respecting their marital status, 15 were single, 4 divorced, 1 widowed, and 2 married. Regarding their arson type (overlapping), 13 were serial arson, 11 were spree arson, and 5 were committed by ex-cons in Table 3.

Case	Age	Profession	Mental disorder	Education	Marital status	Arson type
1	52	Unemployed	Normal	High school dropout (1st year)	Co-habitation after a divorce	Serial
2	42	Junk dealer	Mental disorder, 2nd rating (moderate)	Elementary school dropout (2nd year)	Single	Serial, spree, convicted for arson
3	25	Unemployed	Normal	Middle school dropout	Single	Serial, spree
4	38	New paper delivery	Normal	Middle school graduation	Single	Spree, serial
5	38	Welder	Depression	High school graduation	Divorced	Serial, spree
6	49	Unemployed	Normal	College dropout	Divorced	Spree
7	38	Car cleaning	Normal	High school graduation	Divorced	Spree
8	57	Logger	Normal	Elementary school dropout (5th year)	Co-habitation after separation by death	Spree
9	28	Menial job (production)	Mental retardation, 3rd rating (mild)	High school graduation	Single	Convicted for arson
10	36	Laborer on public work program	Depression	Elementary school dropout (2nd year)	Single	Serial

11	57	Menial job (production)	Depression	Elementary school dropout (2nd year)	Single	Serial, spree
12	53	Technician	Impulse control disorders			
Middle school dropout (2nd year) Divorced Serial						
13	61	Day laborer	Normal	Elementary school dropout (2nd year)	Single	Convicted for arson
14	34	Menial job (production)	Normal	Middle school dropout	Single	Spree
15	34	Sales	Normal	College graduation	Single	Spree
16	38	Menial job (production)	Schizophrenia	High school graduation	Married	Serial
17	57	Odd job	Normal	Elementary school dropout (2nd year)	Single	Spree
18	48	Menial job (production)	Normal	Junior college graduation	Divorced	Convicted for arson
19	31	Menial job (service)	Normal	Junior college graduation	Single	Serial
20	41	Agriculture	Mental retardation, 2nd rating (moderate)	High school graduation	Single	Convicted for arson
21	22	Day laborer	Mental retardation	High school dropout (2nd year)	Single	Serial
22	37	Unemployed	Normal	Open university dropout	Single	Serial

Table 3: General characteristics of arsonists agreed to be interviewed.

Characteristics of Arsonists' Adolescence

Main nurturer and living with parents during adolescence

It was found that about 50% of both non-serial and serial arsonists lived with their parents during their adolescence, and the rest did not because of divorce

(separation), death, etc of their parents. That is, 58 out of 109 serial arsonists or 53.2% lived with both parents, 28% had their parents died, 18.4% had their parents separated or divorced and were unable to live with them when they were young (51 or 46.8% in total). 55.2% of non-serial arsonists spent their adolescent period with both parents in Table 4.

Unit: No. of arsonists, %								
Division		Non-serial/ serial				Total		
		Non-serial		Serial				
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	
Living with parents	Parents alive and living with them	69	55.2	58	53.2	127	54.3	
	Parents not living together	parents separated	56	14.4	20	18.4	38	16.2
		parent died	38	30.4	31	28.4	69	29.5
Total		125	100.0	109	100.0	234	100.0	
*Unknown (137 cases by not-serial, 39 cases by serial arsonists) excluded				(df=2) $\chi^2=.677$ n.s.				

Table 4: Living with parents during adolescence.

Therefore, arsonists were likely to be reared by either grandparents or a single parent, and in some cases they were fostered by their siblings. With respect to their main nurturers, half of both serial and non-serial arsonists were reared by their parents. 26.7% of serial arsonists

and 30.6% of non-serial arsonists were reared by a single parent. 11.9% of serial arsonists and 5.4% of non-serial arsonists were brought up by grandparents or relatives. Their nurturing environment was significantly different from that of average children Table 5.

Unit: No. of arsonists, %							
Division		Non-serial/ serial				Total	
		Non-serial		Serial			
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Main nurturer	Parents	64	57.7	53	52.5	117	55.2
	Single parent	34	30.6	27	26.7	61	28.8
	Grandparents/ relatives	6	5.4	12	11.9	18	8.5
	Siblings	4	3.6	3	3.0	7	3.3
	Others	2	1.8	2	2.0	4	1.9
	Organization	1	0.9	4	4.0	5	2.4
Total		111	100.0	101	100.0	212	100.0
*Unknown(151 cases by non-serial, 47 cases by serial) excluded				(df=5) $\chi^2=5.320$ n.s.			

Table 5: Main nurturer.

As such, arsonists brought up by grandparents or a single parent remembered their adolescence as unhappy moments. Because of this adolescent environment, many of them were abused or neglected. <Case 2> is about an arsonist who set fire on lodging facilities around his residence several times before running away. He had little remorse about his crime. He said that he was lonely because his parents left him to his grandmother. Did you go to the elementary school in ○○ (district of Seoul metropolitan area). Why you did not live with your parents? Initially, they left all of us (my sisters, brother and me) to our grandmother because school was too far in the countryside. So all of you went to school from grandma's? All my siblings except me were with parents. Only I was with grandma. Were you lonely because you were alone? Of course I was. I missed my family, especially my older sister and younger sister [26]. I was quite close to my older brother but did not miss him as much <Case 2>. The offender in <Case 21> stated that during his adolescence, he lived with his grandfather after his father was incarcerated for arson and homicide. Thereafter, because of financial difficulties, he stopped attending school. Because he had mental retardation and heard things, he had an impulse for arson, he said. The offender of <case 21> said that the urge to commit a crime began when he was separated from his father. He thought that he was forced to give up some part of his life to live with his grandfather. When did the urge to set fire start? It began when I was little due to the incident of my father put behind bars. When was it exactly? It was when I was 4th grader in elementary school. When did you hear things? I heard things all day long, and because of that I had a headache and got frustrated. When did you start to hear the voice to set fire? It began when I was in elementary school and my father went to jail.

Why did the voice make you start fire? I don't know. What was your first job to earn money? I started work as a day laborer at a construction site. Were you a construction worker from high school all the way to 2010? Yes. So did you make a lot of money? Yes, I did. How often did you go to work a week? 7 days. Wasn't it hard? I had no choice but to work to make money. Were you very poor? Yes, I was. Were you poor since you were little? Or did you become poor suddenly? I have been poor all the way. Were you poor even before your father was put in jail? We were ok before his incarceration. Where is your mother? She got divorced<Case 21> <Case 3> is about an arsonist who was reared by a single parent due to parents' divorce[27,28]. The offender's mother sent him to a nursing home when he was young, and took him back to live together when he was in middle school. The offender said he had hard time living with his mother. The criminal in <Case 3> committed 10 serial arsons out of anger of being unemployed. I heard you are a middle school dropout. I live with my mother after she divorced. When did she get a divorce? Before I was 6. Do you remember when you were young? A little. I lived with my mother, who had to work. I was virtually brought up by others.

I was sent to my grandmother, or left to upstairs neighbor. I did not study, hung out with bad kids who didn't go to school, was often in trouble, and frequented amusement arcades. That's why my mother sent me to Salesio Catholic Monastery. What do you mean by in trouble? Mingling with bad kids who didn't attend school, I extorted money from other students and would buy snacks. Were you not in trouble in middle school and high school? I was separated from my mother when I was 4th grader in elementary school. Mom got better financially when I entered middle school, and we were reunited. Reunification was yet another environment, to which I failed to adapt <Case 3>In <Case 8>, <Case 22>, <Case 12>, and <Case 10>, offenders were raised by a single

parent due to death of either their father or mother when they were young. Of these cases, <Case 8>, <Case 22>, and <Case 12> are about criminals who suffered the death of their father. Their memory of their fathers was not that good even when they were alive. In <Case 8>, the offender's father took the whole family into a mountain where the offender wasn't able to go to school and had no friend at all. In <Case 22>, the offender remembered his father who abused his family due to alcoholism and gambling. In <Case 12>, the only memory the offender had about his father was his father beating up his mother.

Did you say your father passed away while you were living in a mountain? We lived in a mountain for 14 years. We got out of the mountain 1 year after father's passing. We were forbidden to live there. Did you say to your father that you wanted to go to school? We were growing peach trees and red chilli peppers. I did not dare to say I wanted to go to school, which was 6km away. I thought that being unable to attend school is my destiny. All my siblings managed to graduate from elementary school only, let alone high school. We did not have time to play. Right after coming back from school, we had to help with agriculture, cutting grass. We did not have room for puberty. Was your father strict? Yes, we had to follow every single word of his. There was no talking back. Were you physically abused? Yes, because of his heavy drinking. You were engaged in heavy labor from an early age. Was there anyone in your family to have a heart-to-heart talk with? I had no one to do that. I am the eldest and my brother got married at 28 and left us. There was my mother but she was a woman of old times. You know generation gap?.

<Case 8>what did your parents do for a living? My father passed away when I was young, and older brother was in place of father. He operated a cultivator for neighbors and earned money. He had to quit school because father died. Was your father a heavy drinker? Yes, he was. What was

your father's job? He was a farmer. He had a cultivator to work with. He lost small patch of land he owned because of gambling. Do you have resentment against your father? Yes, I don't have good memory of him. The only thing I remember about him is beating up mom. So I thought many times I would never be a husband like my father [29].<Case 22> did your father drink a lot? Yes, not only was he a heavy drinker but a chain smoker. He died of lung cancer. Did your father drink and argue with your mother? Yes, he was a man of old times. He would say he was sorry when he got sober up from drinking.

Did your father physically abuse your mother? Yes, he threw the ashy tray to hurt mom in the head. She had a concussion. Were you beaten up as well? Yes, many times. When did it happen? When I was in elementary school and I did not like my father <Case 12>. The offender in <Case 10> said his mom died when he was young and he had to live with his father. He became a juvenile delinquent because his father neglected him. What was your parents' job? They were sharecrop farmers. When did your parents come to know that you didn't go to school? I confessed to my father after mom passed away. When did your mother die? When I was 9. When did you confess to your father? Right after mom's death. What did your father say? I should take care of my life, he said. If I found my son did not go to school, I would be upset. My father did not come back home often after work. Then how did you eat? I cooked for myself <Case 10> [30].

Relationship between family members during adolescence

With respect to relationship between family members of arsonists during adolescence, 49 or 51.6% out of 95 serial arsonists had troubled relationship, 33.7% had amicable relationship and 14.7% said average. Non-serial arsonists responded similarly in Table 6.

Unit: No. of arsonists, %							
Division		Non-serial/ serial				Total	
		Non-serial		Serial			
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Relationship between family members	Amicable	35	31.0	32	33.7	67	32.2
	Average	19	16.8	14	14.7	33	15.9
	Troubled	59	52.2	49	51.6	108	51.9
Total		113	100.0	95	100.0	208	100.0
*Unknown (147 cases by non-serial, 52 cases by serial arsonists), N/A (2 cases by non-serial, 1 case by serial arsonists) excluded						(df=2) $\chi^2=.877$ n.s.	

Table 6: Relationship between family members during adolescence.

Troubled family relationship and no friend to turn to means that there's no support system where those in trouble or in conflict can get help. The offenders in <Case 1> and <Case 2> wanted to mingle with people but they themselves cut off social relationship by thinking that their financial situation would not allow them to interact with others. The criminal in <Case 1> set fire on this own house 2 times. In <Case 2>, the arsonist ran away after torching accommodation facilities near his home. Do you have friends? I don't meet friends. I met them when I had my own business. I don't meet them because I do not earn as much as I did. I drink alone, listening to music alone. After losing several teeth, I came to avoid meeting people. I don't have much to show. I used to spend a lot, and now I don't have enough money. So I don't go out to meet people. This is my style.

<Case 1>Why didn't you call your family when you were lonely? I have no money. That's why I don't meet them. If I meet them, it's a meeting in 10 years. I want to meet them. The problem is money. I want to visit my older brother <Case 13>. The offenders in <Case 11> and <Case 12> thought themselves as introverted and were afraid of making friends actively. The arsonist in <Case 10> was living alone without interacting with others. The underlying cause of this isolation seemed to be relationship dissolution with family members. My older brother and sister live in Daegu and I am here and not inclined to visit them. I did not go to see them and as time went by, I did not call them. Before your incarceration in 1997, did you talk to your brother and sister? We were no better than strangers. My older brother was busy making both ends meet and had no time to take care of other siblings. I used to visit my older brother for ancestral rites and holidays. I would give him 300,000 won to 400,000 won to spend on ancestral rites but no one cared. Did you have friends to meet before being put into jail this time? I did not have friend because I am introverted. Do you drink alone? Yes, I do at home <Case 11>. Do you have a friend to share your trouble? No, I don't have such thing as a friend. I live away from home and have no friend to open my heart to. I have a couple of co-workers but I only talk with them over work. I tend to avoid meeting people and don't hang out. Did it start when you began living away from home or from your adolescence? I have been reserved since I was little <Case 12>.

When you had hard time after being released from prison, did your brothers help you? No, they have never helped

me. You have been alone since your adolescence. How often did you meet your father? I rarely saw him. Have you been harassed or physically abused while living by yourself? No. <Case 10> <Case 19> is about a serial arsonist who had the urge to set fire while he was watching TV alone and launched arson attacks 4 times around his residence. He thought his arson is due to loneliness and stress, and tried to relieved himself of stress through arson. Even though he was not financially well-off, he thought he earned enough money to spend for himself. What he needed the most was not money but people to meet. Didn't you have friends in Siheung city when you committed an arson attack? I had friends but they were busy leading theirf own life. I did not see them that often. I would drink alone. Did you have someone to talk with when you were stressed out or in trouble? I did not have. I had to work out all the problems by myself. I would watch my favorite TV programs, ate and drank alone.

You must have been lonely? Yes, I have been (laughter). I heard you had enough money to spend. Money is not everything. I had just enough money to cover living expenses. You need people to talk with on top of money to spend. Some crimes I committed prevented me from visiting my parents. After my release from jail, I left my family. I don't know. I was just lonely. I did speak that much, had no friend, and suffered insomnia. I had to go to work the next day but was unable to sleep until 2 or 3 in the morning. I was stressed out a lot. It was the stress accumulated in me and frustration. Honestly, I was desperate and did not care that much about getting caught. I was careful and successful several times in a row in setting fire without being caught. That's why I was hooked on arson <Case 19>.

Experience of abuse during adolescence

Survey of arsonists on domestic abuse during adolescence showed that 14 (9.5%) of 148 serial arsonists experienced abuse. This is slightly higher than non-serial arsonists' abuse experience of 3.4%. That is, serial arsonists were exposed more to domestic violence than single arsonists were during adolescence. In the meantime, of those serial arsonists (n=14) who experienced abuse, 10 were abused by their father, 3 by their mother, and 1 by paternal aunt [31]. Abuse by father is the most common in Table 7.

Unit: No. of arsonists, %							
Division		Non-serial/ serial				Total	
		Non-serial		Serial			
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Abuse experience	Experienced	253	96.6	134	90.5	387	94.4
	Not experienced	9	3.4	14	9.5	23	5.6
Total		262	100.0	148	100.0	410	100.0
(df=1) $\chi^2=6.482$ p<.05							

Table 7: Abuse experience during adolescence.

This tendency is found in the result of interview. Arsonist in <Case 5>, <Case 7>, <Case 8>, <Case 9>, <Case 11>, <Case 12>, and <Case 13> talked about their fathers who were strict and high-handed. The criminal in <Case 9> seemed to be in all sorts of trouble and his father reacted oppressively whenever he created a problem. The arsonist in <Case 5> said he was frequently abused during adolescence. The offender in <Case 11> stated to the effect that his father was stern but did not support him and neglected him. Was your father a heavy drinker too? Yes. What's his drinking habits? He got angry suddenly and beat me up. Did he drink a lot before hiring a lawyer? Yes. What was he like when he was drunk and back home? Sometimes he came back home, and some other times, he did not. Did he get angry a lot after drinking? Yes <Case 9>.

In what financial condition was your family when you were in middle school and high school? Upper middle class. What did your father do for a living? He was a professional soldier and because of his profession, I thought in my puberty that he delivered a homily when scolding us. Were you frequently abused? Yes. When were you beat up a lot? When I was in middle and high schools, I often fought with friends and my father had to make monetary compensation <Case 5>. Starting my job career, I thought that it would have been better if I had had

someone to support me. Come to think of it, it's unfair. What I experienced was not quite all right. Did your parents physically abuse you? No, they did not. Was your father attentive or strict? He was a bit strict <Case 11>. In <Case 19>, the arsonist said he was not afraid of his father who was strict. He ran away from home because his older brother was strict. The criminal in <Case 20> talked about a situation where his parents were not on good terms. You said you ran away from home because you created a big problem. How severe it was? It was sort of serious. I left home for fear of my older brother and was not courageous enough to go back home. What was your older brother like? I was afraid of him because he was my older brother. On top of that, I created a major problem, and my older brother was short-tempered. I was beat up quite often by him <Case 19>.

Running away from home during adolescence

In the case of serial arsonists, 14 (9.5%) out of 148 ran away from home when young. Among those 9 (n=9), 1 left home for the first time when he was 6, 2 at the age of 10, 1 at the age of 15, 1 at the age of 16, 3 at the age of 18k, and 1 at the age of 20. In the case of non-serial arsonists, 14 (5.3%) out of 262 ran away from home when young. The percentage was slightly lower than that of serial arsonists but difference was not statistically significant in Table 8.

Unit: No. of arsonists, %							
Division		Non-serial/ serial				Total	
		Non-serial		Serial			
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Experience of running from home	Not experienced	248	94.7	134	90.5	382	93.2
	Experienced	14	5.3	14	9.5	28	6.8
Total		262	100.0	148	100.0	410	100.0
(df=1) $\chi^2=2.518$ n.s.							

Table 8: Running away from home during adolescence.

Such experience of running away from home is likely to lead to a reckless life without the protection of family. The offender in <Case 13> left home during adolescence and

lived alone. The criminal in <Case 14> led his life by doing various odd jobs after disappearing from home. The arsonist in <Case 16> did not actually run away from

home but got out of home to be independent and lived alone at an early age. Where is your home town? I do not know. My parents passed away and my registered address on paper is my older brother's house. I do not know when and how my parents died. What was your life like in Seoul? I have been living all alone. I came to Seoul when I was 17, and worked at factories or at construction sites. What were your parents like? My father was strict and mother was generous. When I was scolded by my father, my grandmother would soothe me and take good care of me. I was afraid of the strict father <Case 13>.

Were your parents and you on good terms? Yes, we were. There was never a time when we were financially difficult. What kind of job did you do after running away from home? I worked mainly at bars as a waiter. For some time after my disappearance from home, I hung out with friends. Soon I had to start working to earn money. Wasn't working at an early age hard? I was 17 to 19 when I was working as a waiter. I was young and did not know it's hard. I was not happy working but kept working anyway <Case 14>. You said you wanted to make a lot of money. You were still young then, what made you think so? High school students are not too young. On the island I was living, some high school students earned their own living. The problem was there were not many jobs around on the island <Case 16>.

Discussion

It was found that most arsonists did not live with both parents due to divorce, death, etc of parents while growing-up. Naturally, a majority of arsonists were raised by grandparents or a single parent. Those arsonists with such family background remembered their adolescence as an unfortunate period. Under the circumstance, many arsonists were found to have been abused and neglected. With respect to relationship in the family, more than half of serial arsonists did not have close or stable relationship, nor did non-serial arsonists. Also, about 10% of serial arsonists reported that they had been abused in the family while growing-up. The proportion of serial arsonists who experienced domestic abuse was higher than that of non-serial arsonists. It can be inferred that nurturing environment, family relationship, abuse, and running away from home during adolescence well extended into adulthood. Home is the only place where a child can internalize the value and norms of society it belongs to. For this reason, those with history of being abused in the family tend to resolve problems through violent behavior. In addition, parenting environment as well as childhood abuse has a substantial impact on developing personality and forming patterns of behavior

toward certain problems. Tension and unstable relationship in the family is highly likely to result in crimes.

References

1. Bark, Hyung Min (2004) Arson in Korea, Korean Institute of Criminology.
2. Bark, Hyung Min, Soo Hyeong Choi (2012) Research on Serial Felony(I): Serial Arson, Korean Institute of criminology.
3. Choi, Soo Hyeong (2008) Gender-based Difference of Negative Reaction Influencing History of Delinquency. Doctorial Dissertation of Sociology Department, Korea University Graduate School.
4. Douglas JE, AW Burgess, AG Burgess, RK Ressler (1992) Crime Classification Manual. San Francisco, Jossey-Bass Inc.
5. Brogan R (2009) Serial Crime: theoretical and practical issues in behavioral profiling. edited by Wayne petherick. second edition.
6. Choi, Seung Bok, Don Mook Choi (2009) A Study on Characteristics of Serial Arsonist through the Crime Scene Investigation. Korea Instit Fire Sci Eng Conf 11: 185-191.
7. Park Cheol Hyun (2004) The Estimation on the Residence of serial Arsonist Using geographic Profiling: the Case of Dong-Rae Serial Arson. Korean Criminol Rev 16(2): 61-92.
8. Hong, Seong Yeol (2007) Crime Concealment, Gains and Motivation, Extremism & Serial Arson. Crime Scene Ma 25(11): 59-66.
9. Edward MJ, Grace RC (2006) Analysing the offence locations and residential base of serial arsonists in New Zealand. Aust Psycht 41(3): 219-226.
10. Kocsis RN, Cooksey RW (2002) Criminal Psychological Profiling of Serial Arson Crimes. Int J Offender Ther Comp Criminol 46(6): 631-656.
11. Wachi T, Watanabe K, Yokota K, Suzuki M, Hoshino M, et al. (2007) Offender and Crime Characteristics of Female Serial Arsonists in Japan. J Invest Psychol Offen Profiling 4(1): 29-52.

12. Kim, Kyeong Ok (2009) A Study for Criminal Profiling of Arsonists: based on Crime Scene Action. *Depat Criminal Psyc.*
13. You, Wan-Seok, & Sung-Hyun Hwang (2011) A Comparative Study of the Security Prevention Strategies on Arson: Focused on the Behavioral Characteristics between Serial Arsonists and Simple Arsonists. *Korean J Secur Sci* 29: 139-162.
14. Rossmo DK (2000) *Geographic profiling*. New York, London, CRC Press.
15. Kang, Hye Ja (2011) A Study on the Risk Factors of Juvenile Offenders. *Corrections Studies* 53: 221-239.
16. Stewart LA (1993) Profile of female firesetters: Implications for treatment. *British Journal of Psychiatry* 163: 248-256.
17. Stouthamer-Loeber M, Wei E, Loeber R, Mastenb AS (2004) Desistance from persistent serious delinquency in the transition to adulthood. *Dev Psy* 16(4): 897-918.
18. Lee MS, Kim SW, Park JS, ShinDJ, Yun OG (2008) et al. *Criminol. Ceng Learn korea*, 258-260.
19. Root C, MacKay S, Henderson J, Del Bove G, Warling D (2008) The link between maltreatment and juvenile firesetting: Correlates and underlying mechanisms. *Child Abuse & Neglect* 32(2): 161-176.
20. Myers WC, Borg MJ (2000) *Serial offending by children and adolescents*, Serial offenders: Current thought, recent findings. New York, London, CRC Press.
21. Lambie I, Randell I (2011) Creating a firestorm: A review of children who deliberately light fires. *Clin psychol Rev* 31(3): 307-327.
22. Tucker JS, Edelen MO, Ellickson PL, Klein DJ, (2011) *Running Away From Home: A Longitudinal Study of Adolescent Risk Factors and Young Adult Outcomes*. *J Youth Adolescence* 40(5): 507-518.
23. Kim, Joon Ho, Cheong Sun Park (1991) The Study on Relationship Between Running Away and Deviances. *Korean Inst criminol.*
24. Il-Seok Noh (2010) Factors predicting recidivism of male violent juvenile probationers : Study for developing MVJP-RRAR (Male Violent Juvenile Probationers-Rapid Risk Assessment of Recidivism). *Korean Criminol Rev* 21(3): 349-379.
25. Goettong Annm (1994) The Parenting Crime Connection. *J Prim Prev* (14): 167-184.
26. Kandel D (1996) The Parental and Peer Contexts of Adolescent Deviance: An Algebra of Interpersonal Influences. *J Drug* 26(2): 289-315.
27. Kim, Kyeong O, Eun KK (2011) Study to compare crime scene actions of serial arsonists with those of non-serial arsonists. *The Korean J Fore Psyc* 2(3): 237-261.
28. Min JK Tajima EA, Herrenkohl T, Huang Bu (2009) Early Child Maltreatment, Runaway Youths, and Risk of Delinquency and Victimization in Adolescence: A Mediation Model. *Social Work Res* 33(1): 19-28.
29. Kyung-Shick C, Seong-Sik L(2017) Mobile Phone Technology and Online Sexual Harassment among Juveniles in South Korea: Effects of Self-control and Social Learning. *Inter J Cyber Criminol* 11(1): 110-127.
30. National Youth Policy Institute (2009) *Korean Survey on the Runaway of Youth and Children in 2009* National Youth Policy Institute.
31. Kang, Eun Young, Hyung Min Bark (2008) Patterns and Trends of Homicides in Korea: Focused on crimes of the serial murders, parricide and murderess. *Korean Inst criminol.*