

The Influence of Family Structure and Adult Attachment Style on Theft Behaviors in Men: a Case-Control Study

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Research article

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Abstract

Background: Theft has led to significant costs to commerce and legal system, but its psychological mechanisms and risk factors are barely explored. This study aims to investigate the influence of family structure and adult attachment style on theft behaviors in men.

Methods: 257 men with a conviction for theft (theft group) and 405 male college students (control group) were interviewed with Experiences in Close Relationships Scale and a general questionnaire about socio-demographic information, family structure and criminal records.

Results: Compared with control group, long-term residency, family economic situation, number of siblings, father's presence before 5 years old, parents' state of existence and parents' marital status of theft group were significantly different ($P < 0.05$). Living in urban area, from relatively poor family, not living with father before 5 years old and parents not divorced increased the likelihood of theft in men ($P < 0.05$). While father not alive and having no siblings decreased the likelihood of theft in men ($P < 0.05$). Then theft group was further divided into first offender group and recidivist group. First offender group had a significantly higher proportion of living with mother/father before 5 years old and father alive than recidivist group ($P < 0.05$). Not living with mother before 5 years old and father not alive increased the possibility of multiple thefts, while preoccupied attachment decreased such possibility ($P < 0.05$).

Conclusions: This study suggested that risk factors for theft and multiple thefts were different. A variety of targeted strategies related to family structure and attachment styles are needed to prevent theft from occurring and reoccurring.

Background

According to data released by the National Bureau of Statistics, the rate of theft crimes in China gradually increased and accounted for two-thirds of all crimes (Liu & Gao, 2018). Theft, the crime of stealing and one kind of antisocial behaviors, has led to significant costs to commerce and legal system. It is believed theft behaviors are associated with emotional and behavioral disorders such as kleptomania and antisocial behaviors, as well as a direct motive to obtain economic benefits (Prospero-Luis et al., 2017; Blum et al., 2018).

Prior researches on theft behaviors have mainly focused on kleptomania (Brazil et al., 2018; Zhang et al., 2018). Individuals with kleptomania commit multiple thefts because of an irresistible urge to steal items that are not needed for personal use or for monetary value, following by an intense feeling of gratitude or relief after (American Psychological Association, 2013), which can be quite different from theft with a direct motive to obtain economic benefits (Sipowicz & Kujawski, 2018). However, persons with charges or convictions for theft are not routinely assessed for kleptomania in China, so whether their theft behaviors are consequences of a mental illness or economic reasons is unclear.

Theft behaviors are also considered to be related to family structures and interpersonal problems with family members, especially with parents (Lee et al., 2015). Wang et al (2011) found that adolescent's antisocial behaviors differ due to changes in family structures and interactions between adolescents and parents. Interaction and emotional connection formed between children and their early attachment figures, namely attachment style, determined one's self-cognitive development and predicted externalizing and internalizing problems, such as delinquency and anxiety (Ainsworth, 1982; Bowlby, 1982; Fearon, 2010; Groh et al., 2014). Children from single-parent families had higher occurrence of antisocial behaviors (Liu et al., 2017). Even though theft is considered to be an antisocial behavior in general, it shows a different development trajectory from violent antisocial behaviors such as attack and destruction. Barker et al. (2007) took theft and physical violence, two common antisocial behaviors in children and adolescents, as an example. Through a long-term cohort tracking, they found that violent behaviors decreased with age, while theft behaviors increased with age and reached its peak in early adulthood. In summary, family structure and adult attachment style are closely related to antisocial behaviors (Murray et al., 2018; Sobotkova et al., 2013), but the impact of them on theft is still inconclusive.

Many researches have investigated the psychological mechanisms behind general antisocial behaviors (Cheung, 2014; Weng et al., 2016), however, rather less are focused on theft. Even among those theft related researches, the main topics were judicial characterization and sentencing of theft crimes in China (Hu, 2019). Psychological mechanisms and risk factors behind theft are barely explored. A comprehensive examination of psychological and family domains can help with profound understanding of theft and hence advance rehabilitation programs for theft offenders.

In order to explore the correlation between family structure and adult attachment style and theft behaviors, this study compared men with a conviction of theft and male college students in western China. Results are now reported as follows.

Methods

Setting and Participants

First part of this study was conducted in two prisons located in Jiangsu province and Sichuan province after mental health lectures for male prison inmates with a conviction for theft. Questionnaires were sent to those who attended the lectures. Informed consent and inclusion and exclusion criteria were printed at the top of the questionnaire. Participants who did not agree to participate or did not meet the criteria were advised to stop answering the following questions. Inclusion criteria consisted of: (1) people aged 18 and over, (2) with normal cognitive function, (3) had no serious physical diseases, (4) and signed informed consent. Exclusion criteria comprised the following: (1) people with previous history of epilepsy, (2) and/or previous history of brain trauma, (3) and/or previous or current diagnosis of mental disorders in the DSM-V.

To compare the results of the questionnaires in the group of men with a conviction for theft (theft group) and the general population, we recruited a control group in the second part of this study. Since the theft group was made up of men in early adulthood, 420 male college students were recruited from two universities in Sichuan province as a control group at a ratio of 2: 3 to balance the gender and age distribution. The inclusion and exclusion criteria of control group were basically the same as the theft group, except that "people with no previous criminal record" was added as an exclusion criterion.

This study is a case-control design, and frequency matching or individual matching between groups is not required.

Data Collection

Data were collected from December 2020 to January 2021. When written informed consent was granted, we explained questionnaires to participants. Participants answered questions about their socio-demographic data and criminal records and completed a standardized questionnaire about adult attachment style. When participants did not understand some questions, they were specifically instructed, but no suggestive language was used. Upon completion, the questionnaire was withdrawn. In total, 280 questionnaires of the theft group were sent out and 257 valid questionnaires were retrieved. 420 questionnaires of the control group were issued and 405 valid questionnaires were retrieved.

Ethical Statement

Ethical approval was granted by the Medical Ethics Committee of West China Hospital, Sichuan University before data collection. All participants were informed of contents and data usage of the study. Written informed consent was obtained before answering any question.

Measurement

The General Questionnaire

A general questionnaire was used to collect participants' socio-demographic data and criminal records, including questions about age, long-term residency (urban area, suburb area, remote area), family economic conditions (well-off, average, relatively poor, very poor), having siblings or not (both biological parents in common), lived with mother/father before 5 years old or not (one present and the other absent), mother/father alive or not, parents divorced or not, and the number of arrests for theft (one, more than one).

The Experiences in Close Relationships Scale (ECR)

Experiences in Close Relationships Scale (ECR) (Brennan et al., 1998) is a self-reported questionnaire designed by Brennan et al. on adult romantic attachment style. Li Tonggui et al. (2006) translated it into a Chinese version and validated in Chinese cultural context. Although the initial ECR was anchored in relation to "my (romantic) partner ", it was reworded with "the person who I think is close " for this study.

There are 36 items in the ECR, and each item is rated by respondents using a seven-point Likert scale, indicating their level of agreement.

There are two dimensions of ECR: attachment-related anxiety and avoidance. Attachment-related anxiety measures the anxiety level of individuals who expect to build an intimate relationship with particular others, but are also afraid of being rejected and abandoned (Fraley et al., 2015). Attachment-related avoidance dimension reflects individual's fear of intimacy and the degree of discomfort towards approaching and relying on others, which is manifested as indifference and avoidance of social and interpersonal relationships (Fraley et al., 2015). The two dimensions are relatively independent and have no significant correlation. The higher the dimensional score, the stronger the degree of individual attachment anxiety and attachment avoidance. The *Cronbach's a* coefficient of avoidance dimension of the Chinese version of ECR is 0.82 and that of the anxiety dimension is 0.77. The scale has good structural validity and content validity. After assessing the dimension of attachment, Fisher's linear discriminant formula was used to convert two dimensions into four adult attachment styles: secure (low anxiety, low avoidance), preoccupied (high anxiety, low avoidance), dismissing (low anxiety, high avoidance) and fearful (high anxiety, high avoidance) (Bartholomew & Horowitz, 1919).

Data Analysis

Data entry and statistical analysis were performed using SPSS 19.0 software. The difference in socio-demographic characteristics, family structures and adult attachment styles between groups (theft group versus control group, first offender group versus recidivist group) were compared with *t*-tests for continuous variables and Chi-square tests for categorical variables. Binary logistic regression analysis was conducted to identify factors associated with theft behaviors. All effects referred to as statistically significant are associated with two-tailed *P* values less than 0.05.

Results

Comparison Between Theft Group and Control Group

Comparison of descriptive statistics for socio-demographic characteristics, family structures and adult attachment styles of theft group (TG) and control group (CG) were conducted and results were presented in Table 1.

There was no significant difference in age, living with mother before 5 years old and adult attachment styles between two groups ($P > 0.05$). However, participants' long-term residency, family economic situation, number of siblings, father's presence before 5 years old, parents' state of existence and parents' marital status were significantly different between TG and OG ($P < 0.05$).

Risk Factors for Theft

All variables with $p < 0.05$ were candidate parameters for inclusion in the subsequent logistic regression analysis. As for adult attachment styles, even though there was no significant difference between TG and

CG ($P > 0.05$), they were believed to have an impact on participant's antisocial behaviors by many researchers. Therefore, adult attachment styles were included in the logistic regression analysis as well.

In the next step, a binary logistic regression analysis was performed to identify risk factors for theft in men. The results showed that those who lived in urban area, whose family economic situation was relatively poor, who did not live with father before 5 years old, and whose parents had not divorced were more likely to commit theft ($P < 0.05$). On the contrary, participants who had no siblings and whose father was not alive were less likely to commit theft ($P < 0.05$). Results were shown in Table 2.

Comparison Between First Offender Group and Recidivist Group

To investigate risk factors for multiple thefts, the theft group was further divided into first offender group (FOG) and recidivist group (RG) according to their self-reported criminal records. Comparison of descriptive statistics for socio-demographic characteristics, family structures and adult attachment styles of FOG and RG were presented in Table 3.

There was no significant difference in long-term residency, family economic situation, having siblings or not, mother being alive or not, parents' marital status and adult attachment style between two groups. But men in the FOG had a significantly higher proportion of living with mother/father before 5 years old and father alive than men in the RG ($P < 0.05$). All variables with $P < 0.05$ and adult attachment styles were included in the subsequent logistic regression analysis.

Risk Factors For Multiple Thefts

When we conducted a binary logistic regression analysis with candidate parameters from last step, results suggested that men who did not live with mother before 5 years old and whose father was not alive were more likely to commit multiple thefts ($P < 0.05$). With secure attachment as the reference category, preoccupied attachment significantly decreased the risk of multiple thefts ($P < 0.05$), while fearful and dismissing attachment styles showed no significant effect ($P > 0.05$). See Table 4.

Discussion

By comparing the socio-demographic data, family structures and adult attachment styles between men with a conviction of theft and male college students, and analyzing their effects on theft, we found that there were significant difference in long-term residency, family economic situation, number of children, father's presence before 5 years old, parents' state of living and parents' marital status. Moreover, living in urban area, from relatively poor family, not living with father before 5 years old and parents not divorced were risk factors for theft behaviors in men. While father not alive and having no siblings decreased the probability of theft in men.

In terms of social demographic factors, living in urban area increased men's theft risk, which may be related to the allocation of material resources in the region. In China, supplies in remote areas is only enough for daily use, not be hoarded in large quantities. People there usually engage in self-sufficient

agriculture, and the population density is low (Tang et al., 2018). Accordingly, there are fewer goods and opportunities to steal than in urban areas. In addition, men from relatively poor families were more likely to commit theft, consistent with previous research that suggested material shortage and economic constraints were one of the reasons for theft (Harbaugh et al., 2013).

With respect to family structure, the presence of father and parents' marital status significantly affected theft in men. Many studies have found that fathers played an important role in establishing rules in children's growth (Langley, 2015; Habib et al., 2010). From the perspective of gender socialization, the relationship between son and father is more important than that between daughter and father (Root & Rubin, 2010). Fathers have more severe punishment and interference protection for boys than girls. Compared with men whose father was present in the process of growth, men whose father was absent before the age of 5 had lower recognition of moral constraints and were therefore more likely to commit theft. In contrast, the results of this study suggested that men in adolescence and early adulthood with a deceased father were less likely to commit theft, possibly because they were more sensitive to the consequences of criminal risks since they needed to assume the family responsibilities previously undertaken by the father. As for parents' marital status, many studies on adolescent problem behaviors have shown that parental divorce was positively associated with violence and substance abuse (Weaver & Schofield, 2015; Tebeka et al., 2016). On the contrary, results of this study showed that parents not divorced increased the risk for theft, which indicated that the psychological mechanisms for the occurrence and development of violence and theft were different.

Results of this study indicated that having no biological siblings, being the only child, decreased the probability of committing theft, which was consistent with previous studies. The Only-Child Policy of China, enacted in 1979, affected the way Chinese parents raised their children (Wang & Fong, 2009). Resource dilution theory proposed that family resources, such as necessities of life and personal attention and intervention, are finite and divided by the number of children in a family (Blake, 1981). Only children received more attention and responsiveness from parents since childhood and parents of only children made more attempts to correct their only children than parents of multiple children, which help to facilitate children's development of psychological confidence and mature behavioral patterns (Liu et al., 2010). A cross-sectional study found that only children had better adjustments both psychologically and behaviorally at school in contrast to children with siblings, and presented lower level of psychological distress and delinquent participation, including stealing (Liu et al., 2017). In addition, as the sole heir to family property, being the only child is associated with taking less risk in economic behaviors (Cameron et al., 2013).

Theft group was then further divided into first offender group and recidivist group according to criminal records to analyze risk factors for multiple thefts. There were significant difference in presence of mother/father before 5 years old and father not alive. Furthermore, not living with mother before 5 years old and father not alive increased the possibility of multiple thefts, while preoccupied attachment decreased such possibility.

The absence of mother in the process of growth is a specific trauma for children. Enough emotional support from mother reduces the occurrence of male adolescents' delinquency, otherwise it contributes to the formation of anti-social personality (VanderPyl, 2018). A longitudinal study revealed that a high quality initial mother-son relationship reduced youth's re-offending, consistent with our study (Cavanagh & Cauffman, 2017). As mentioned earlier, death of the father was a protective factor for theft in general, but rather a risk factor for multiple thefts. The reason may be related to the economic pressure caused by father's death. Participants of this study were mainly adolescents and early adults. People of this age usually do not have qualified and stable livelihood ability. Multiple thefts may become the last choice under economic pressure.

Preoccupied attachment is characterized by high anxiety and low avoidance. Orehek et al.'s (2017) study found that anxious attachment was positively associated with higher assessment tendencies, and avoidant attachment was negatively associated with locomotion tendencies. This means that individuals with preoccupied attachment make their decisions based on assessment of means and consequences before initiating actions. In this way preoccupied attachment reduced the likelihood of multiple thefts.

There are some limitations to this study. First, participants were male only, so conclusions can't be generalized to other population. Second, first offenders and recidivists were divided according to their self-reported criminal records. It is possible that first offenders lie about their criminal records in case of privacy leakage and potential punishment.

Conclusion

This study provides important implications. Our findings show that risk factors for theft and multiple thefts were different. Family structure changes have a significant effect on theft behaviors in men and preoccupied attachment decreases the likelihood of multiple thefts in men. Various targeted measures are needed for preventing theft from occurring and reoccurring.

Declarations

Ethics approval and consent to participate

Ethical approval was granted by the Medical Ethics Committee of West China Hospital, Sichuan University. All methods were carried out in accordance with relevant guidelines and regulations.(eg. Helsinki declaration). Written informed consent was obtained from participants.

Consent for publication

Personal identifiers has been deleted from transcripts and findings were presented anonymously. Consent for publication was obtained.

Availability of data and materials

The datasets analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests

No competing interests.

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None.

Authors' contributions

Xu Wang and Jiajun Xu conducted the study. Xu Wang wrote the main manuscript and all authors reviewed the manuscript.

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Tables

Table 1

Socio-demographic characteristics, family structure, and adult attachment style of TG and CG

Variables		(M ± SD)/%		t(df)/ χ ²	P
		TG (n = 257)	CG (n = 405)		
Age		22.42 ± 2.62	22.78 ± 2.58	1.740	0.082
Long-term residency	Urban area	42	164	45.288	< 0.001*
	Suburb area	165	169		
	Remote area	50	72		
Family economic situation	Very poor	32	34	12.445	0.006*
	Relatively poor	41	105		
	Average	164	225		
	Well-off	30	41		
Have siblings	Yes	52	165	30.008	< 0.001*
	No	205	240		
Lived with mother before 5 years old	Yes	234	359	0.977	0.323
	No	23	46		
Lived with father before 5 years old	Yes	235	342	6.875	0.009*
	No	22	63		
Mother alive	Yes	224	388	16.821	< 0.001*
	No	33	17		
Father alive	Yes	216	383	20.212	< 0.001*
	No	41	22		
Parents divorced	Yes	36	19	17.914	< 0.001*
	No	221	386		
Adult attachment style	Secure	23	50	6.178	0.103
	Fearful	146	195		
* indicates P < 0.05					

Variables	(M ± SD)/%		t(df)/ χ ²	P
	TG (n = 257)	CG (n = 405)		
Preoccupied	40	82		
Dismissing	48	78		

* indicates P < 0.05

Table 2

Binary logistic regression of socio-demographic characteristics, family structures and adult attachment styles of overall sample

Variables		B	S.E.	Exp(B)	95%CI	P
Long-term residency	Urban area	1.060	0.308	2.887	1.580 ~ 5.277	0.001*
	Suburb area	-0.248	0.251	0.780	0.477 ~ 1.277	0.324
	Remote area	-	-	-	-	-
Family economic situation	Very poor	0.030	0.446	1.031	0.430 ~ 2.472	0.946
	Relatively poor	0.808	0.391	2.244	1.044 ~ 4.824	0.039*
	Average	-0.151	0.341	0.860	0.441 ~ 1.678	0.657
	Well-off	-	-	-	-	-
Have siblings	Yes	-	-	-	-	-
	No	-0.83	0.212	0.435	0.287 ~ 0.658	< 0.001*
Lived with father before 5 years old	Yes	-	-	-	-	-
	No	0.673	0.297	1.961	1.096 ~ 3.507	0.023*
Mother alive	Yes	-	-	-	-	-
	No	-0.506	0.365	0.603	0.295 ~ 1.233	0.165
Father alive	Yes	-	-	-	-	-
	No	-1.108	0.328	0.330	0.173 ~ 0.628	0.001*
Parents divorced	Yes	-	-	-	-	-
	No	1.641	0.351	5.159	2.591 ~ 10.273	< 0.001*
Adult attachment styles	Secure	0.296	0.341	1.345	0.690 ~ 2.623	0.384
	Fearful	-0.163	0.236	0.849	0.534 ~ 1.350	0.489
* indicates P < 0.05						

Variables		B	S.E.	Exp(B)	95%CI	P
	Preoccupied	0.208	0.295	1.231	0.690 ~ 2.196	0.482
	Dismissing	-	-	-	-	-
* indicates P < 0.05						

Table 3

Socio-demographic data, family structure, and adult attachment style of FOG and RG

Variables		FOG (n = 165)	RG (n = 92)	χ^2	P
Long-term residency	Urban area	21	21	5.121	0.077
	Suburb area	108	57		
	Remote area	36	14		
Family economic situation	Very poor	18	14	2.933	0.402
	Relatively poor	23	18		
	Average	110	54		
	Well-off	14	6		
Have siblings	Yes	136	70	1.491	0.222
	No	29	22		
Lived with mother before 5 years old	Yes	159	75	15.968	< 0.001*
	No	6	17		
Lived with father before 5 years old	Yes	158	77	10.979	0.002*
	No	7	15		
Mother alive	Yes	148	76	2.652	0.103
	No	17	16		
Father alive	Yes	148	68	10.975	0.001*
	No	17	24		
Parents divorced	Yes	18	18	3.674	0.062
	No	147	74		
Adult attachment style	Secure	11	12	3.251	0.354
	Fearful	95	52		
	Preoccupied	27	12		
	Dismissing	32	16		

*indicate P < 0.05

Table 4

Binary logistic regression of socio-demographic characteristics, family structures and adult attachment styles of theft group

Variables		B	S.E.	Exp(B)	95%CI	P
Lived with mother before 5 years old	Yes	-	-	-	-	-
	No	1.600	0.601	4.536	1.397 ~ 14.732	0.012*
Lived with father before 5 years old	Yes	-	-	-	-	-
	No	0.600	0.598	1.778	0.551 ~ 5.739	0.336
Father alive	Yes	-	-	-	-	-
	No	1.260	0.359	3.130	1.549 ~ 6.325	0.001*
Adult attachment styles	Secure	-	-	-	-	-
	Fearful	-0.985	0.537	0.374	0.131 ~ 1.069	0.066
	Preoccupied	-1.116	0.475	0.328	0.129 ~ 0.831	0.019*
	Dismissing	-1.076	0.564	0.341	0.113 ~ 1.029	0.056
*indicate P < 0.05						