



SITUATIONAL VICTIMIZATION AMONG ADOLESCENTS

EXPLORING THE ROLE OF MORALITY, SELF-
CONTROL AND LIFESTYLE RISK

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Abstract

The present study aims to explore the role of self-control, morality and lifestyle risk (core elements of Situational Action Theory - SAT) on adolescent victimization. Although previous studies produced plenty of support to the influence of self-control and lifestyle risk on victimization, no study so far measured level of morality as predictor of victimization. The study focuses especially on exploring the effect of morality in causation of victimization among adolescent. Analyses are based on data collected for Malmö Individual and Neighbourhood Development Study (MINDS) during 2011-12, when adolescents attained at the age between 16 and 17. Pearson's correlation and binary logistic regression are run to examine relation and the magnitude of effect of each predictor. Strong relation of adolescent victimization with lifestyle risk and self-control is revealed in this study, that awarded strong support to the existing studies. A correlation between morality and victimization among adolescent also identified. Overall findings step-ahead the possibilities of application of the core elements (morality, self-control and lifestyle risk) of SAT in explanation of victimization. Gender remains as a strong predictor of adolescent victimization, where significant gender differences in level of morality is identified.

Keywords: Adolescent Victimization, Morality, Self-control, Lifestyle Risk, MINDS.

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INTRODUCTION

Adolescent victimization is a consequential topic in Criminology since this population group are the most susceptible to get victimized in our society (Finkelhor & Asdigian, 1996; Moone, 1994). The Swedish Crime Survey (SCS) shows that the people of young ages are mostly victimized by various forms of offences, *i.e.* assault, threats, sexual offences, robbery and harassment (Brå, 2018). There are various perspectives in Criminology that explain adolescents' victimization. In recent, the most significant development in contemporary victimization research is the integration of theoretical approaches which encapsulate both lifestyle and self-control theories (Turanovic, Reisig, & Pratt, 2015) that basically emphasize the situational approach of victimization.

With the scholarly efforts in past few decades, the explanation of victimization is mainly derived from lifestyle exposure and routine activities perspective (Cohen & Felson, 1979; Hindelang, Gottfredson, & Garofalo, 1978). Recent studies emerged the concept of self-control in relation with victimization that can be explored further for the explanation of victimization in terms of risky lifestyle (Ren, He, Zhao, & Zhang, 2017). Individuals with poor self-control are more prone to find themselves in risky situations (*i.e.* lifestyle risk) such as delinquent peer association, alcohol consumption, time spent unsupervised or in city centers, engaging in violent activities, *etc.* (Hindelang, Gottfredson, 1978; Miethe, 1990; Schreck, 1999).

Both theoretically and empirically in criminological research, it is considered that the linkage between self-control and victimization is well established (Turanovic & Pratt, 2014). Schreck (1999) argues that the concept of low self-control is associated with the concept of victimization; it is important for understanding the origins of victim precipitation and provocation (Ren et al., 2017; Schreck, 1999). And a number of empirical researches advanced the knowledge regarding association between self-control and victimization in various forms (Higgins, Jennings, Tewksbury, & Gibson, 2009; Piquero, MacDonald, Dobrin, Daigle, & Cullen, 2005).

However, individual's victimization espoused by situational interaction that is determined by the ability to exercise of self-control and exposure to risky situation. There is an another element described in Situational Action Theory (SAT) that individuals' acts or actions are guided by moral rules (Wikström, Oberwittler, Treiber, & Hardie, 2013). Moral values represent rules of conduct about what is right or wrong to do in a certain situation (Wikström et al., 2013). Studies provide strong supports to the assumption that the effects of self-control depends on individual's level of morality (Svensson, Pauwels, & Weerman, 2010) this implies that self-control has less important effects on individuals' actions with high level of morality than that of with low level of morality. But, there is an acute research gap to explore whether morality influence individuals' victimization and to what extent the independent effect of morality varies in explaining adolescent victimization along with self-control and lifestyle risk. Furthermore, this study intends to explore new knowledge about the role of morality on adolescents' victimization with association of self-control and lifestyle risk.

Review of Literature

Victimization among Adolescents in Sweden

In Sweden, according to recent statistics of the Swedish National Council for Crime Prevention (Brå), young people are mostly victimized by various offences, such as violent offences (*i.e.* assault, threats), sexual offence, property offence (*i.e.* robbery) and harassment. Among them, male are more likely victimized by assault and robbery than female; on the other hand, female are more victimized by sexual offence and harassment than male (Brå, 2018). Other study on adolescents' victimization in Sweden by Cater, Andershed & Andershed (2014) indicates gender difference in victimization, that girls are less likely to get victimized than boys for both violence and property crime.

Self-control and Victimization

Despite, the importance of self-control as a key mechanism in understanding deviance is pointed out by Hirschi and Gottfredson (1990), some studies assessed victimization as being one of the ramifications of lack of self-control. By integrating lifestyle model, Schreck (1999) extended the self-control theory to explain why individuals with low level of self-control are at increased risk for developing a risky lifestyle and thus for experiencing victimization. Some scholars also argued that self-control theory can easily be articulated with lifestyle theory in explaining victimization (Childs & Gibson, 2009; Nofziger, 2007; Pauwels & Svensson, 2011).

A number of empirical studies has spawned the utility of low self-control for victimization. There are multiple forms of victimization in a variety of context and population (Ren et al., 2017). Literature shows that most of the empirical attention has been drawn to violent victimization (*i.e.* interpersonal violent victimization, sexual assault victimization and intimate partner victimization) (Baron, Forde, & Kay, 2007; Franklin, 2011; Kerley, Xu, & Sirisunyaluck, 2008; Schreck, Stewart, & Fisher, 2006; Schreck, Wright, & Miller, 2002). A few studies are also focused to examining property victimization as well as "non-contact" forms of victimization (*i.e.* consumer fraud victimization, cybercrime victimization and cyber bullying victimization) that covers a wide variety of population segments (Bossler & Holt, 2010; Fox, Lane & Akers, 2012; Holtfreter, Reisig & Pratt, 2008; Schreck, 1999). Overall, these empirical studies across the variety of contexts indicates that, self-control is a robust predictor of violent victimization and explore as net of a host of other criminogenic factors (Ren et al., 2017).

Morality and Victimization

Along with self-control, morality also plays an important role on individual's lifestyle. But, it has rarely been examined that the role of morality in causation of victimization. Recent studies illustrate that choice of actions of an individual are guided by morality and the basic argument is that people's actions are best explained as moral actions (Wikström et al., 2013). The level of morality represents the rules of conduct. The person's morality and the degree to which an individual finds particular actions right or wrong may vary. For example, a person may consider alcohol consumption, deviant peer association and time spent unsupervised or city centers is wrong and risky; but another person may consider these actions as less reprehensible and risky (actions alternative) (Hindelang et al.,

1978; Miethe, 1990; Ren et al., 2017; Schreck, 1999). That actions alternative might cause people to get exposed into risky situation and in contact with motivated offenders. But it needs to consider that, there is a gap for knowledge about understanding the association and correlation among individual's morality and victimization.

Lifestyle Risk and Victimization

The role of lifestyle risk in victimization is well described by Hindelang and colleagues (1978) that explicitly explains victimization in relation with individuals' routine activities or lifestyle. They argue that individuals' specific lifestyles instigate them to be exposed to the (risky) environmental settings which is highly likely to cause victimization. For example, adolescents who are habituated with unstructured lifestyle and spend a lot of their time in city center or on streets, in absence of guardian or social control are more likely to encounter offenders, as also offenders are mostly spend their time in these settings (Hindelang et al., 1978; Pauwels & Svensson, 2011).

Previous research provide convincing evidence that deviant and risky lifestyles increase the likelihood of victimization, and specifically a most substantial predictor for violent victimization (Jennings, Piquero, & Reingle, 2012; Lauritsen & Laub, 2007; Lauritsen, Sampson, & Laub, 1991; Pizarro, Zgoba, & Jennings, 2011). To examine victimization risk, an early research by Sampson & Lauritsen (1990) used data from the British Crime Survey that accounted for routine activities, lifestyles, and deviant behavior in relation with victimization. The findings of the study strongly suggested that deviant and risky lifestyles had a significant positive influence on victimization.

Theoretical Framework

The classical victimization theories focus on situational explanations of victimization. Theories of victimization postulate that certain routine activities (Cohen & Felson, 1979) and lifestyles (Hindelang et al., 1978) bring individuals into risky situations which increase the likelihood of victimization. *The Routine Activities and Lifestyle theories* take the purest situational perspective of offending as well as victimization. Routine activities theory (RAT) focuses on the circumstances under which crime occurs and peoples are victimized in a situation that is characterized by three necessary elements which need to converge in space and time: a suitable target (victim), a motivated offender, and the absence of guardian (Cohen & Felson, 1979; Podaná, 2017). The proposition of RAT regarding victimization is well explained by Hindelang et al. (1978) which focuses on routine activities of an individual to get victimized through getting exposed into high risk situations. This theoretical construct explains victimization in a way that individual lifestyle influences the risk of victimization through increased opportunity to get into contact with motivated offenders in the absence of guardianship. It considers lifestyles involving routine activities, like: time spent unsupervised or in city centers, especially at night (absence of guardian), delinquent peer association, alcohol consumption, *etc.* are highly risky in terms of victimization (Podaná, 2017).

In studies, 'self-control' came-up as an important indicator of victimization along with exposure to high risk situation. Schreck (1999) suggests Gottfredson and Hirschi's (1990) *self-control theory* could be reformulated to explain

victimization. Subsequent research explored that low self-control is linked to behaviors ranging from murder and violent activities to deviant lifestyle and consuming too much alcohol (Pratt & Cullen, 2000; Reissig & Pratt, 2011; Turanovic & Pratt, 2013). Gottfredson and Hirschi (1990) stated that, it is so, because individuals with lack of or low self-control are more prone to pursue their own self-interest without considering the potential long-term consequences of their actions or behavior. This kind of people are also attracted to pleasurable and thrilling experiences (*e.g.* taking drugs, stealing stuff, and destroying things) that may bring them into risky situation and close contact to motivated offender, and are less caring to take the precautions which are necessary to avoid victimization (Schreck, 1999). So, self-control conceptualized in this way that it is argued not only a salient predictor of crime, but also of victimization.

Individuals' morality is also an important role-playing factor along with self-control in formulating individual's choice of action in their lifestyle. It is evident that elements of *Situational Action Theory* (SAT) (*i.e.* morality, self-control, situational exposure or lifestyle risk) are linked with explanation of situational victimization when individuals' with low morality and poor self-control are likely to choose deviant activity or risky lifestyle and more prone to get themselves in risky situations that increase the likelihood of victimization (Hindelang, Gottfredson, 1978; Miethe, 1990; Schreck, 1999).

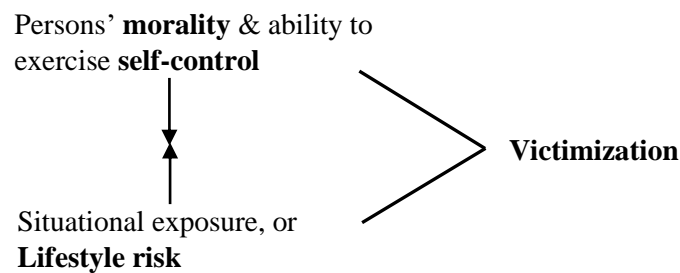


Figure: Causation of victimization in relation with individuals' morality, self-control and lifestyle risk.

AIMS OF THE STUDY

The current study intends to examine the role of morality, self-control and lifestyle risk (core elements of SAT) on victimization among adolescents, and differential independent effect of these elements in predicting adolescent victimization.

More specifically, the study aims at investigating

- To what extent morality, self-control and lifestyle risk influence the victimization among adolescents.
- To what extent the independent effect of morality, self-control and lifestyle risk vary in explaining adolescent victimization.

METHODS

The current study draws data from a broader research project namely Malmö Individual and Neighborhood Development Study (MINDS)¹, in short – Malmö Children.

About MINDS

MINDS was initiated in 2007 and modelled after the Peterborough Adolescent and Young Adult Development Study (PADS+). PADS+ is an ongoing longitudinal study in UK. When the Malmö study was planned and designed, the original plan was to collaborate between the Swedish and British studies to make cross-national comparisons possible. MINDS was intended to examine adolescents' development of various kind of behavior and how this can be explained in relation to the participants' characteristics and exposure to different social environments. It is explicitly designed by incorporating the key variables of SAT (*i.e.* morality, self-control, lifestyle risk).

Malmö was found as a suitable area for this study since this area accounted for relatively larger share in official crime as well as victimization statistics of Sweden. Sample of MINDS is approximately one fourth of all children who born in 1995 and living in Malmö on September 1, 2007. In the beginning, data were collected from limited sample size consist of 250 parents and children, respectively. However, the final sample consisted of 560 randomly selected children that is satisfactory representative according to sex and geographical areas. Participants in MINDS filled out interviewer-led questionnaire and took part in interviews as part of collecting data for this study.

Sample

The present study is based on cross-sectional data drawn from the third wave of data collected in 2011-12. Randomly selected sample consists 517 adolescents (participants) attained the age between 16 and 17. Among this 49.5 percent were girls and 50.5 percent were boys. A large number of adolescents ($n = 210$) were found victimized at least once, of which 41 percent were girls and 59 percent were boys.

Measures

Dependent Variable:

Victimization

The victimization measure is derived from the interviewer-led questionnaire. This study includes two forms of victimization: namely, violent victimization and property victimization. The victimization scale consists of two items (*see* Appendix) asking the adolescents whether or not, during the 9th grade (in school) they had been victimized by getting kicked or hit, and robbed or theft. All items are coded as 0 for 'No', 1 for 'Yes, one time' and 2 for 'Yes, more than one time'. An additive scale is calculated as the sum of scores of the two items. There are few number of adolescent victims had experienced two or more incidences of such victimization, this additive variable is transformed into a dichotomous

¹ https://www.mah.se/fakulteter-och-omraden/Halsa-och-samhalle-startsida/HS_Forskning/Program--Plattformar/MINDS/Om-MINDS/

measure of prevalence of victimization. Dichotomous measures is also fit for probability statistical models such as binary logistic regression that is well suited for studying the relationship between variables (Osgood & Rowe, 1994; Schreck, 1999).

Independent Variables:

Morality

To measure morality, this study used a generalized morality index based on 16 items as recommended by the proponents of SAT (Wikström et al., 2013). A set of 16-items on varying actions were presented before the respondents (adolescents) and asked to respond to what extent those actions are wrongful, and answers are coded as: 0 for 'Very wrong'; 1 for 'Wrong'; 2 for 'Little wrong'; and 3 for 'Not wrong at all'. Items thus included: 'steal a pencil from a classmate'; 'skip doing homework for school'; 'ride a bike through a red light'; 'go skateboarding in a place where skateboarding is not allowed'; 'hit another young person who makes a rude comment'; 'lie, disobey or talk back to teachers'; 'get drunk with friends on a Friday evening'; 'smoke cigarettes'; 'skip school without an excuse'; 'tease a classmate because of the way he or she dresses'; 'smash a street light for fun'; 'paint graffiti on a house wall'; 'steal a CD/MP3 from a shop'; 'smoke cannabis'; 'break into or try to break into a building to steal something'; and 'use a weapon or force to get money or things from another young person'. Higher score in morality represents lower level of morality. An additive scale is developed depending on the response obtained. Cronbach's alpha for morality scale is found 0.84.

Self-control

Self-control is measured by using an additive scale based on 8 attitudinal items from the Grasmick et al. (1993) self-control scale (Wikström et al., 2013). To assess adolescent's level of self-control, 8 context-driven options presented before the respondents (adolescents) and asked to what extent they agree with those statements: and answers are coded as: 0 for 'Disagree'; 1 for 'Somewhat Disagree'; 2 for 'Somewhat Agree'; and 3 for 'Agree'. Items thus included: 'I never think about what will happen to me in the future'; 'I don't devote much thought and effort to preparing for the future'; 'sometimes I will take a risk just for the fun of it'; 'I sometimes find it exciting to do things that may be dangerous'; 'when I am really angry, other people better stay away from me'; 'I lose my temper pretty easily'; 'I often act on the spur of the moment without stopping to think'; and 'I easily get bored with things'. The higher score in the scale refers to lower level of self-control. Cronbach's alpha for self-control scale is found 0.70.

Lifestyle risk

Lifestyle risks are indicated in this study as measure of situational exposure as used by SAT. This scale comprised three dimensions of lifestyle including: what kind of risky activities they engage, where adolescents spend their leisure time, and who they are spending their time with. Specifically, the dimensions of lifestyle risk are translated to the attributes like (a) time spent unsupervised or in city centers, (b) delinquent peer association, and (c) alcohol consumption. Previous studies also used similar dimensions to constructing lifestyle measure where lifestyle risk was studied as dependent variable (Pauwels & Svensson,

2009) as well as predictor variable (Pauwels & Svensson, 2013; Svensson & Pauwels, 2010; Wikstrom & Svensson, 2008).

To measure about what extent adolescents get exposed to risky settings, the participants (adolescents) were asked how often they spend time with their friends in the city center in evening, with the answer options coded as 0 for ‘Never’; 1 for ‘Once or twice a week’; and 2 for ‘Several days (3 - 7 days) a week’. To assess delinquent peer association, adolescents were asked how often their friends got involved to six distinct types of delinquency (*i.e.* truancy, being drunk, drug abuse, theft, vandalism, assault), with answer options coded as: 0 for ‘Never’; 1 for ‘Yes, sometimes’; 2 for ‘Yes, often (in every moth)’. And finally, to measure alcohol consumption, adolescents were asked how often they drunk alcohol, and how often they drunk so much alcohol that they felt sick, with answer options coded as: 0 for ‘Never’; 1 for ‘1 – 5 times’; and 2 for ‘more than 5 times’. An additive scale for lifestyle risk is calculated as the sum of scores of the 9 items (*see* Appendix) with values 0 – 2 for each item, where higher score in morality represents higher level of lifestyle risk and Cronbach’s alpha for lifestyle risk scale is found 0.75.

Gender (control variable)

To explore gender difference in adolescent’s victimization this study included gender as a control variable. It is one of the most persistent generalized findings in criminology is the gender difference in offending as well as victimization. Here, gender is measured as dichotomous variable, coded as 0 for boys and 1 for girls.

Table 1: Description of the variables

Variable	Items included	Cronbach’s alpha	Range	High score on the measure implies	Mean	S.D.
Victimization	2		3	More than one count of victimization	1.53	.70
Gender	1		2	Girls	1.5	.50
Morality	16	.84	46	Low level of morality	23.06	7.15
Self-control	8	.70	22	Low level of self-control	10.77	4.18
Lifestyle Risk	9	.75	22	Higher lifestyle risk	6.03	4.33

Analytical Strategy

As univariate analysis, frequency distribution, mean and standard deviation were performed to understand the data, and to decide and conduct further statistical analyses. Reliability analyses were performed to measure the Cronbach’s alpha of each variable. In addition, identifying significant outliers of data set was another purpose for exploring univariate analysis, which is presented in table 1 that describes important aspects of the variables.

In the bivariate analysis, as the first step, a mean-score comparison was conducted to compare prevalence of morality, self-control and lifestyle risk between victim and non-victim adolescents, where gender differences in victimization also explored (table 2). Secondly, cross-tabulation, a descriptive bivariate analysis was performed to explore the independent relationship of the level of morality, self-

control and lifestyle risk with adolescent victims (table 3). In third step, this study explored the correlation coefficients to see whether the correlations between all variables (table 4).

Finally, to examine the independent effects of gender, morality, self-control and lifestyle risk on victimization, a binary logistic regression analysis was run in the SPSS software. Victimization scale was dichotomized before performing the regression model. To illustrate, it considered victimization as an outcome (dependent); and gender, morality, self-control and lifestyle risk as predictors (independent). A hierarchical method (block-wise entry) was selected to ‘force enter’ the data into analysis (with the option *Enter* as it is known in SPSS). Three models were obtained through performing the logistic regression analysis (table 5), where at first gender was inserted. In the second model, morality with self-control were entered and finally, followed by lifestyle risk in the third model. Such hierarchical entry is supported by theoretical assumption of SAT.

ETHICAL CONSIDERATIONS

The Malmö Individual and Neighborhood Development Study (MINDS) project followed standard procedure. At project implementation, the participation in MIND is based on informed consents that were obtained from the participants with information about the purpose of the study according to the Act concerning the Ethical Review of Research Involving Humans (SFS 2003:460) and the Personal Data Act (1998:204). The consent to participate (parent and child) is agreed to by the parents and participants were informed that the participation was voluntary with the right to withdraw at any point of the interview. MINDS project got first approval by the Regional Ethical Committee at Lund University in 2007 (Dnr. 201/2007) and a second approval in 2014 (Dnr. 2014/826).

Anonymity and confidentiality was ensured through decoding the information gathered before using them. At drawing data from MINDS project, only the information regarding specific variables necessary for the current study were provided with new codes. This makes impossible to identify individual participants from dataset. Moreover, the results are produced as well as discussion and conclusions are drawn in a way that assured an important ethical requirement that the participants could not be identified by themselves or by others.

RESULTS

The objective of the analysis was to identify the relation of morality, self-control and lifestyle risk with adolescent victimization. To explore the answer, two descriptive bivariate statistical analyses: mean-score comparison and crosstabulation (respectively table 2 & 3) were computed. Table 2 delineates mean-score comparison between victimization and non-victimization among adolescents in connection to morality, self-control and lifestyle risk. Additionally, victimization groups are further categorized into sub-groups by gender to compare gender difference in mean scores within victimization. The analysis shows significant mean score difference between victimization and non-victimization

group in respective of morality, self-control and lifestyle risk. The mean score for morality, self-control and lifestyle risk are significantly higher for victimized adolescents than for non-victimized, indicating that adolescent victims are more prone to exhibit low morality, weak self-control and higher lifestyle risk in comparison with non-victims. Within victimized group, girls show significantly lower mean score for morality than boys, but there is no significant gender difference found in self-control and lifestyle risk among adolescent victims.

Table 2: Comparison of mean within victimization and non-victimization

	Victimization	Non-victimization	Victimization	
			Girls	Boys
Morality	23.3 (7.4)*	22.8 (6.9)*	21.3 (6.3)***	24.7 (7.7)***
Self-control	11.4 (4.2)*	10.3 (4.1)*	11.1 (3.7)	11.6 (4.5)
Lifestyle risk	6.9 (4.3)**	5.4 (4.2)**	6.7 (4.2)	7.0 (4.4)

* $p < .05$; ** $p < .01$; *** $p < .001$

In crosstabulation (descriptive statistic), the level of morality, self-control and lifestyle-risk are counted within the total number of victimization ($n = 210$ or calculated as 100%), where to explore exact level of impact, the scale of independent variables were normally distributed into high, medium and low level based on logical distribution of score of each variable (*i.e.* low to high score represent high to low level of morality and self-control except lifestyle risk). Table 3 shows that the low morality, low self-control and high lifestyle risk have highly significant effect on adolescent victimization. Around 40 percent adolescent victims are possessed low level of morality. The effect of low self-control on adolescent victimization are nearly two times higher in comparison with the effect of high self-control. This table indicates that adolescents with medium and high lifestyle risk (total: 75.2%) are jointly three times higher likelihood of victimization than the adolescents with low lifestyle risk (24.8%).

Table 3: Crosstabulation of adolescent's level of morality, self-control and lifestyle risk within victimization

	High	Medium	Low
Morality	30.7*	29.1*	40.2*
Self-control	21.3*	37.2*	41.5*
Lifestyle Risk	41.9*	33.3*	24.8*

* % within total victimization

To investigate the relation among gender, morality, self-control and lifestyle risk in adolescent victimization, a bivariate correlation analysis (table 4) and a logistic regression analysis (table 5) was conducted. Table 4 shows that morality, self-control and lifestyle risk are significantly correlated with adolescent victimization (respectively $r = .12$, $.11$ and $.21$), indicating that adolescents with low morality, weak self-control and high lifestyle risk report higher levels of susceptibility to get victimized, and girls are found less prone to victimization than boys ($r = -.15$). Morality is found strongly correlated with self-control ($r = .39$) and lifestyle risk ($r = .43$), beside this self-control and lifestyle risk also significantly related ($r =$

.28). The matrix shows morality, self-control and lifestyle risk are independently correlated with victimization in a significant level. Among this, the relation between victimization and lifestyle risk are more significant, than self-control and morality.

Table 4: Correlation Matrix (Pearson's r)

	1	2	3	4
1. Victimization	-			
2. Gender	-.15*	-		
3. Morality	.12**	-.23**	-	
4. Self-control	.11*	-.05	.39**	-
5. Lifestyle Risk	.21**	-.03	.43**	.28**

* $p < .05$; ** $p < .01$; *** $p < .001$

Binary logistic regression was performed to examine relative contribution of four predictors (gender, morality, self-control and lifestyle risk) to dichotomized dependent variable (victimization). In the table 5, three different models are presented which revealed effect of the predictors on predicting victimization among adolescents, where dependent variable is dichotomized. Outcome of the regression presented the '*Odds Ratios*' that indicates significant changes in the likelihood of being a victim and the relationship between adolescent victimization and each predictor.

Table 5: The effects of predictors (morality, self-control and lifestyle risk) on predicting adolescents' victimization

	<i>Model I</i>	<i>Model II</i>	<i>Model III</i>
Predictors	Odds Ratio	Odds Ratio	Odds Ratio
Gender (Girls)	.56***	.58**	.58**
Morality (Low)		1.31	1.06
Self-control (Low)		1.38	1.23
Lifestyle Risk (High)			2.14***
Cox and Snell R^2	.020	.032	.059
Nagelkerke R^2	.027	.043	.080

* $p < .05$; ** $p < .01$; *** $p < .001$

In the first model, gender dimension is used to predict adolescent victimization. Findings revealed that gender plays a significant role in predicting victimization among adolescents. The result indicates (*Odds ratio* = .56) that likelihood of girls' victimization is halved than that of the boys. Second model explored the effect of both morality and self-control to predict victimization among adolescents. In particular, the likelihood of being a victim increases for adolescents who are with low morality and self-control (*Odds ratio* respectively 1.31 and 1.38). In the third model, lifestyle risk is entered with morality and self-control, and found

statistically high significant (*Odds ratio* = 2.14). Precisely, the likelihood of being a victim is increased with the increase of adolescent lifestyle risk.

DISCUSSION

The core objective of the study was to reveal the role of morality, self-control and lifestyle risk on adolescent victimization. To date, the independent effect and relation of morality, self-control and lifestyle risk with victimization has rarely been examined in research. Especially, there is acute study gap to explore the role of morality in adolescent victimization. This study contributes to fill that gap. In doing so, a set of bivariate and multivariate analysis were performed to identify the significant effect size and relation of morality, self-control and lifestyle risk within victimization among adolescents as well as compared with non-victim adolescent group. The result of the study shows that self-control, morality and lifestyle risk have independent effect and significant correlation among adolescent victimization.

Specifically, findings of the study indicate that the adolescent with low level of self-control are highly victimized prone. And to compare with non-victim adolescents group, level of self-control is found lower for adolescent victims. This finding strongly supported by existing studies. Schreck (1999) explored in the study (as an extension of general theory of crime) that low self-control corresponds to increased odds of victimization. Later, supporting evidence came from several studies by Fagan & Mazerolle (2011); Jennings et al. (2010); Nofziger (2009). Gottfredson and Hirschi (1990) assert, peoples' with low level of self-control tend to be risk seekers that is explained by Wiesner & Rab (2015), individual's with low self-control are thus at elevated risk for victimization because they are more likely to expose themselves to situations that provide opportunities for victimization. Along with this explanation, the result of the analysis shows similar strong correlation between self-control and lifestyle risk within victimization that indicates adolescents with low level of self-control are more prone to expose themselves into high (lifestyle) risky situations. Findings also indicates significant correlation between individual's level of self-control and morality.

Role of morality in offending is examined by various contemporary studies, but in victimization among adolescent has seldom explored to date. The finding illustrates that adolescents with low level of morality are more likely of victimization than adolescents with high morality. Along with this, morality shows strong correlation with self-control in adolescent victimization. It is argued by SAT that individual's morality is an important role-playing factor along with self-control in formulating individual's choice of action (Wikström et al., 2013). Study finding also shows significant correlation between morality and lifestyle risk within adolescent victimization. It illustrates that individuals with low morality are likely to choose risky lifestyle and more prone to get exposed themselves in risky situations (*i.e.* delinquent peer association, alcohol consumption, time spent unsupervised or in city centers, *etc.*) that increase the likelihood of victimization.

Study finding revealed highly significant correlation between lifestyle risk and adolescent victimization. Adolescents with high lifestyle risks are more victimized than who are with low lifestyle risk. This outcome of analysis is pertinent with the explanation of victimization by lifestyle theory (Hindelang et al. 1978). An integration of routine activities and lifestyle-exposure theories (Cohen & Felson, 1979; Hindelang, Gottfredson, & Garofalo, 1978) posits that routine activities and lifestyle that are 'risky' increase the likelihood of victimization by virtue of exposing individuals to high-risk situation, bringing them into contact with potential offenders, and absence of guardians (Ren et al., 2017). In the study finding, lifestyle risk shows strong correlation with self-control and morality within victimization; that indicates, adolescents with weak self-control and low level of morality are more prone to get exposed in risky situation.

Research over the past few decades has illustrated that gender is a significant predictor of victimization (Zaykowski & Gunter, 2013). This study also pay attention to explore gender difference in victimization among adolescents. The result of the study strongly suggest that girls are less victimized prone than boys, that is strongly agreed with the recent statistics of Swedish Crime Survey (SCS) 2017 by the Swedish National Council for Crime Prevention (Brå, 2018). In the findings, there is no significant difference of self-control and lifestyle risk level are found between girls and boys, but level of morality shows significant gender difference within adolescent victimization. That indicates boys' level of morality is lower than girls'. Because there is no significant difference of level of self-control and lifestyle risk by gender, so within the framework of this study morality is identified as the major explanatory factor in explaining gender difference of victimization among adolescent.

Limitations

There are several limitations to this study that need attention. First, the dataset used in this study is lack of varieties in victimization scale. It includes only a few types of victimization incidents, i.e. violence and property-related victimization. The main pitfalls of victimization scale include its attempt to consider all counts of available victimizations its victimization, but its inability to capture actual prevalence. A good victimization scale that includes more varieties of victimization in respective communities is required to explore actual effect size of predicting variables. Second, though this study explores gender difference in victimization among adolescents, there is a lack to find out role of gender in variations of victimization as an important issue in victimological research. Previous studies revealed that men are at greater risk of becoming victimized at work (Mustaine, 1997), on the other hand women are more likelihood of being harassed on the internet (Holt & Bossler, 2008) but they are less likely to be victimized by minor violent crimes than men (Henson, Wilcox, Reyns, & Cullen, 2010). Third, data is not fully representative to the current population composition of Malmö as well as present study purpose. This limitation was mentioned by other studies based on MINDS data as well (Chrysoulakis, 2013; Ivert & Levander, 2014; Uddin, 2017). When the MINDS project was designed in 2007, it lacked focus on participants victimization. Lastly, it is difficult to generalize the role of predicting variables in overall adolescent victimizations without assessing the functioning mechanism of variables in variations of victimization among adolescents. Further research is required to overcome the limitations.

CONCLUSION

This study reveals the role of three basic components of SAT (*i.e.* morality, self-control and lifestyle risk) on victimization among adolescents. Present research indicates that adolescents' morality, self-control and lifestyle risk have independent effect on victimization. Low level of morality and self-control are found strongly correlated with victimization, on the other hand, high lifestyle risk has significant impact on victimization. Furthermore, morality, self-control and lifestyle risk show significant correlation among them within adolescent victimization. However, the study findings indicate relative predictive strength of key elements of SAT in victimization among adolescents. To explore the interaction effect and mechanism among these elements in the explanation of victimization, further research need to continue.

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APPENDIX

Detailed wording of the items included in scale of victimization

1. Has someone, during 9th grade, kicked or hit you, resulting in physical harm to you?
2. Has someone, during 9th grade, stolen anything from you or robbed you?

Detailed wording of the items included in scale of lifestyle risk

1. It happens that one or some of my closest friends truant from school.
2. It happens that one or some of my closest friends drink themselves full.
3. It happens that one or some of my closest friends sniffing glue, gas or using drugs (e.g. hashish).
4. It happens that one or some of my closest friends shoplifting or stealing from other people or from shops.
5. It happens that one or some of my closest friends destroy or damage things that do not belong to them (e.g. crushers windows, scribble or scratch the paint on cars).
6. It happens that one or some of my closest friends fight or get into fights.
7. Time spent time with friends in city center in the evenings.
8. Frequency of getting drunk.
9. How many times have you drunk so much alcohol that you felt full during?

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