The relationship of social support and self-esteem with recidivism among prisoners
Uones Ghasimbaklo1, Ghasem Mohammadyari1, Mohammad Mahmoodzadeh1, Reza Mohammadzadeghan1, Mehdi Mokhtari4

Abstract
Recidivism is repetition of criminal activity and generally is measured by the former prisoner’s return to prison for a new crime. The present study aimed to evaluate the relationship of prisoners’ social support and self-esteem with recidivism event. The cross-sectional descriptive analytical study enrolled all prisoners with a history of recidivism more than once. Among this population, 72 prisoners who had a history of recidivism more than once were randomly selected. Fleming social support and Cooper smith self-esteem inventory were used to examine the samples. Data were analyzed by stepwise multivariate regression tests and Pearson correlation coefficient. None of the samples had good indicator of social support and its weakness showed a significant relationship with recidivism event. No significant relationship was observed between self-esteem and recidivism. The results of the regression analysis showed that social support was one of the predictive factors of recidivism, but self-esteem had no predictive role. Reduction in social support levels and the low level of self-esteem in prisoners will result in an increased possibility of crime commitment, and it can be reduced by promoting social supports and increasing self-esteem in prisoners.

Keywords: Social Support, Self-Esteem, Prisoner

Introduction
Healthy and safe community refers to a society in which people feel secured; hence security means peace, and lack of fear and concern for being endangered by others. In other words, security has also been interpreted being protected from threats and risk of death, disease, poverty and on the whole anything that destroys human peace [1]. One of the factors that erodes the sense of security and damages safe society is the presence of crime and its formation areas [2]. Although the scale of crime commitment may not be clear, it is obvious that its high rates can endanger public security and intensify costs of law enforcement and criminal justice [3]. The recidivism means repetition of criminal activity in which the offender is sent back to prison for repetition of crime commitment. Recidivism rates can reflect the degree of rehabilitation of prisoners and the role of corrective programs in their renewed presence in community [4]. Over 9.8 million people around the world and more than 220 thousand people in Iran are in prison at present. It is estimated that about two-thirds of the total prisoners are in the United States. This means that two-thirds of the released prisoners will be imprisoned again within 3 years [5]. The high rate of recidivism imposes excessive social costs to communities, offenders and their families. Due to these heavy costs, providing some programs for inmates and released prisoners...
to reduce recidivism will be cost effective, although these programs would have a relative success [6]. Rogers believes that self-esteem is person's continuous evaluation on his value or his judgment about his own value. This trait is common in all people and is a constant and steady state [7]. William James proposes that self-esteem is a function of the fraction of the successes on the self-expectations, so that a person’s successes more than his expectations lead to more self-esteem, and vice versa [8].

Self-esteem and self-worth are the key factors in the personality optimal development of individuals. Having a strong will and self-confidence, power of decision-making and innovation, creativity and innovation, thought health and mental health have a direct relationship with the amount and manner of self-esteem and self-worth. Low self-esteem is one of the major causes of cruel and criminal behavior [9]. Social support is a psychological concept recently presented by education scientists [10]. Furthermore, it has been one of the basic needs of human beings throughout history. The primitive people in most periods of the history probably lived in small groups and looked for food and sometimes were in danger of being attacked by a predator [11]. According to Olen, throughout human history people could confront with crises and encounter danger in the best way if they received help from others. Thus, we need close attachments by nature so that we can enjoy the support of family and the people around [12]. Also, there is a variety of social support resources for people including family, peers, friends, relatives, neighborhood shopkeeper, teachers, colleagues, and others. These groups can provide formal or informal social support for the individuals [13].

Kuhn et al. showed that low social support is considered as a predictive factor of recidivism and the lack of positive social relationships can result in negative psychological states such as anxiety, depression, and abnormal behaviors in community [14]. Also, family social support is considered as a good predictor in abnormal behaviors and mental disorders and has direct and positive effects on recidivism [15,16]. Jina Pistulka et al. believe that social support can act as a protective shield between crime, abnormal behaviors and mental disorders [17]. Also, studies on social support and its relationship with self-esteem conclude that social support has a relationship with self-esteem and promotes it [18]. Carli and Koups showed that delinquent behaviors are defensive responses to protect oneself against feelings of low self-esteem and offenders’ criminal behavior roots in the sense of guilt and anxiety. Hence, observing low self-esteem in some delinquents is not unexpected and improbable [19]. About definition of social support indicator Coleman et al. state that family is the basic element of social support formation that is influenced by conditions of organizations and other social networks [20]. Family social support is the context and factor for formation of normal and abnormal behaviors in children; hence the authority of families and the presence of positive family environment can reduce the incidence of abnormal behaviors in children in dealing with problems [21]. Siegert and Vinket examined social capital and crime and showed that weaknesses of individual-level and structural variables such as self-control, low support from parents and trust between the people will be associated with delinquent behaviors [2]. Larni reviewed the factors affecting recidivism and noted that 10 thousand prisoners released in Australia during one year were sent back to prison after one or two years. They were more the people who had low social education and background level and committed a crime heavier than their previous crime and most of them had weak mental stability and poor family and social stamina. He believes that social factors are the most influential factors in recidivism [22]. Peterson et al. showed that pathological and delinquent behaviors are a defensive response to protect self against the feeling of low self-esteem and the root of offenders’ criminal behavior is the sense of guilt and anxiety [23]. Given that self-esteem is one of the most important elements of the character and its
low levels can be involved in a wide variety of behavioral problems, observing low self-esteem in some delinquents is not unexpected and improbable [24,25]. From political perspective, changing the conditions of prisons can have a relative and inexpensive effect compared to other interventions in reducing crime after the prisoners are released [26]. People should enjoy a positive attitude and protectionism from their environment and the society to benefit from their maximum intellectual capacity and potential capabilities. The effect of self-esteem and social support on recidivism can be identified by knowing delinquents’ self-esteem and comparing it with that of others. By mapping cognitive, behavioral and social characteristics of delinquents and understanding the role and effects of social support and self-esteem in the incidence of recidivism, recidivism and even aggravated crime can be prevented. Delinquent behaviors of susceptible people can be affected by strengthening positive personal and social behaviors and the incidence of crime can be prevented by strengthening these resources considering that self-esteem and social support are precursors of abnormal behavior and recidivism [9]. This study seeks to answer the question what the relationship of recidivism and self-esteem with social support in prisoners is. Also this question is raised whether social support and self-esteem can predict recidivism? The current study has investigated such a relationship by using two main indicators affecting the incidence of crime or positive and negative behaviors in the community and in addition to discovering the effect of these two indicators in recidivism, it has also measured their effects on the incidence of high-intensity crimes. There are few studies conducted on the incidence of recidivism in prisoners and detecting the factors affecting it. This study aimed to evaluate the relationship of prisoners’ social support and self-esteem with the recidivism.

**Method**

This cross-sectional study was conducted on male prisoners in central prison of Khoy, Iran, in 2011, who had a history of recidivism more than once. After applying the inclusion criteria among eligible samples, only 96 prisoners had more than recidivism in their case. Cochran's formula was used to estimate sample size and 72 subjects were determined. Simple random sampling method was used for sample selection. Only 5 prisoners of the selected samples were reluctant to participate in the study, so to select alternative people 5 prisoners the remaining 24 prisoners who met inclusion criteria were selected and replaced randomly. All selected samples signed informed consent form after being briefed on the type and purpose of the study and that they could leave the study without suffering any loss or damage. To investigate the considered indicators and collect the data, the following instruments were used. Inclusion criterion was committing crime more than once in their file. This questionnaire contains 58 yes/no items and was designed, validated and revised by Coopersmith in 1967. This test is used to measure self-esteem. The minimum score in this questionnaire is zero and the maximum is 50. The scores above the average on this scale indicate high self-esteem and scores lower than the average represent low self-esteem [27]. This test has shown appropriate reliability and validity in Iran [28]. For example, Sabet in his study reported reliability coefficient of 0.892 for this questionnaire. In the present study, reliability of this questionnaire is 0.764 by Cronbach's alpha method. The perceived social support scale in this study included Fleming et al. in 1982 scale with 25 items and contained five sub-scales of support from family, relatives, peers, general support and finally views on support. This scale has three subscales. Support from family and support from friends have eight items each and support from significant others has seven items. The structure of this questionnaire is based on the definition that social support depends on the rate of enjoying love, assistance and attention of the family members, friends, and significant others. Fleming et al. estimated the reliability coefficient of the scale 0.7 by...
using test retest [29]. Norbeck used factor analysis and reported validity for each subscale of perceived support, family support and friend support as 0.73, 0.87 and 0.91, respectively [30]. This test has been translated into Persian by Harooni et al. [31]. Its Cronbach’s alpha was determined as 0.79 in this study. In this study, a researcher-made questionnaire was used to obtain samples’ individual profile such as age, education level, marital status, type of crime, drug addiction history, and the influencing reason on the recidivism. Two trained and experienced psychologists were used to explain the possible questions of the participants in order to overcome the problem of wrong answers to the questions.

After the participants signed informed consent forms, the questionnaires were delivered to them. Then they were briefed about the objectives of the study, the questionnaire and the process of the study. Then they were asked to complete the questionnaires. All participants received a gift after they completed the questionnaires. The participants’ response rate to the questionnaires was 100% and none of them returned their questionnaires without completing. The results of the completed questionnaires were analyzed by SPSS 16 statistical software. To this end, descriptive statistics (central and dispersion) and analytical indicators such as t-test, multivariate regression test, and Pearson’s and Spearman’s correlation coefficients were used.

### Results

The mean and standard deviation of the age in the study population was 31.8±6.05 (min=23 and max=50) years old. Among them, 55.6% (n=40) were single and 44.4% (n=32) were married. The mean and standard deviation of crime commitment in this group was 4.63±2.42 times (min=2, max=12).

The result of Pearson’s correlation coefficient test to evaluate the relationship between age and the tendency to recidivism showed that the correlation coefficient obtained for the two variables was – 0.212 that is statistically significant (p<0.05). This estimation indicates that there is a weak relationship between these two variables and the more is the age, the lower is the recidivism rate.

The result of comparing the mean difference between marital status and the tendency to recidivism shows that the calculated t-test value for these two variables is 2.02 and there is a significant difference between them. This confirms the mean difference in the tendency to recidivism between the single and married groups.

The result of correlation coefficient for the two variables shows that there is a weak relationship between these two variables and the more is the age, the lower is the recidivism rate.
variables of education level and the tendency to recidivism shows a relatively significant relationship between them, that is, higher levels of education reduce the tendency to recidivism. The level of participants’ education was low, as 47.2% of them had elementary education level and none of them had academic education and the most crimes were committed in groups with lower education. Among the participants, 6 prisoners reported parental separation and 11 prisoners were divorced. In terms of addiction, the result of the survey showed that 48 prisoners were addicted to drugs (66.7%) and 87.5% (63 prisoners) were smokers. In terms of the type of crime, the most crime committed was street fight and theft that constituted half of the cases (51 prisoners). Table 2 shows the pattern of crimes committed by study population. Comparisons of the number of crimes committed by each individual showed that the increase in the number of crimes aggravated the crime. The increase in the number of crimes committed by the study population revealed that the crime became heavier and more severe when the number of crime was over five times such that prisoners who committed murder had more than 9 times recidivism in their file. No significant relationship (P>0.33) was observed (r= –0.2) in the analysis performed between the increased number of crime commitment and the severity of the crime committed. The study population, in response to the question about the cause of recidivism, asserted that the most important reason for recidivism was poverty in the family (44 people). The correlation test between recidivism and the severity of the crime showed a significant positive correlation between these two variables. Each time a crime was committed, its severity increased (r = 0.32, P< 0.05).

In order to investigate the indicator of prisoners’ social support and self-esteem, the relevant questionnaires were studied and the results are presented in table 5. The mean score of the social support indicator was 19.6±9.6 (max= 42, min= 2). The minimum score belonged to a person who had committed the highest recidivism in its severe form.

<table>
<thead>
<tr>
<th>Table 4</th>
<th>Statistical indicators obtained from the analysis of samples based on Pearson’s correlation test</th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>19.6</td>
</tr>
<tr>
<td>Social support</td>
<td>5.4</td>
</tr>
<tr>
<td>Family</td>
<td>2.1</td>
</tr>
<tr>
<td>Friends</td>
<td>1.4</td>
</tr>
<tr>
<td>Significant others</td>
<td>1.9</td>
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</tbody>
</table>

To investigate the relationship between variables, Pearson’s correlation test was used and accordingly, a negative significant relationship was observed between recidivism and self-esteem (r= –0.76) (P<0.006). It was shown that the reduction of self-esteem can result in increased crime. Furthermore, a negative relationship (r= –0.11) was observed between recidivism and social support indicator, so reduction of social support indicator can cause increased recidivism. This relationship was statistically significant (P<0.05) (Table 4). The results showed that there is a negative relationship between the extent and intensity of family, friends, significant others’ supportive resources and recidivism. The results confirmed the effects of the inverse relationship between social support and recidivism rate, that is, the increase in supportive resources can result in reduction of prisoners’ recidivism. Stepwise regression was used to investigate predictive factors of recidivism among women with respect to self-esteem and...
social support, where R and R² coefficients were found as 0.828 and 0.364, respectively (F=21.182, P<0.03). Among the predicting factors for recidivism, only social support was confirmed (β = 0.828, P< 0.03) (Table 5).

Table 5: The summary of stepwise regression model for predictive indicator of recidivism

<table>
<thead>
<tr>
<th>Predictive indicator</th>
<th>Sig</th>
<th>β</th>
<th>R²</th>
<th>R</th>
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</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>P&lt;0.07</td>
<td>-0.512</td>
<td>0.251</td>
<td>0.525</td>
</tr>
<tr>
<td>Social support</td>
<td>P &lt;0.03</td>
<td>0.828</td>
<td>0.364</td>
<td>0.828</td>
</tr>
</tbody>
</table>

Discussion
The current study aimed to evaluate the effects of indicators: social support and self-esteem in criminals and their recidivism. It seems that imprisonment for people who have committed crime is a factor that prevents recidivism, but in most cases, offenders commit crime or violate social norms after being released from prison. Therefore, imprisonment seems to be not the only way to prevent crime, but there are other factors that increase the criminals’ motivation for recidivism. This study aimed to investigate the effects of supportive indicators of individuals from the various dimensions of family and friends and self-esteem indicators.

The findings showed that the prisoners with a history of recidivism have low supportive indicators and self-esteem. Moreover, social support is one of the predictors of recidivism. In a study by Agnew et al., the relationship between the individual characteristics, the incidence of crime and the application of interventional methods to reduce crime was reviewed. They referred to the effective role of environmental factors such as personal and social support indicators and people’s self-confidence on recidivism. They also mentioned that the main reasons for social events included irresponsibility, no fear of guilt and ignoring social rules which originate from social support weakness during adolescence and youth. Their results were consistent with ours with regard to the effect of social support and self-esteem on recidivism [32]. Also the results of our study were consistent with the study of Abadi et al. in which they showed a direct relationship between self-esteem and the incidence of crime and mental disorders. [33]. The results of this study showed that the study population had low self-esteem, which is a predicting factor for committing crime, a basis for other psychological disorders and a driving factor for harsh behaviors. The only difference between this study and ours is that self-esteem was not a predictor for recidivism in our study [33].

The important point is to provide consulting services and psychotherapy for the prisoners during imprisonment to increase their self-esteem. It can be quite useful as enhancement of self-esteem, and development of a center to support them can help modify their behavior and reduce the rate of their return to prison.

The results of the studies of Cherry Barnes on factors decreasing crime commitment and Palermo et al. on detection of influential reasons in recidivism are consistent with the results of our study. They observed that social support and self-esteem are effective in recidivism [3, 34]. Although data analysis showed that the study population had low level of social support, they had good interpersonal relations with each other in prison. It can be considered as one of the negative social support resources on the fact that people are under the influence of each other to commit crime. The results of our study indicated that prisoners with high rate of crime commitment have the level of heavier crime incidence, and this is consistent with Francesco Drago et al studies in review of the conditions of prisoners and the possibility of recidivism. They believed that prison conditions were the major reasons influencing recidivism event [26]. Drago believes that poverty and prisoners’ low literacy levels are reasons of recidivism event and the results of this study are consistent with the results obtained from the current study. Hence, it is necessary that the policy makers of educational factors provide some programs for prisoners’ employment and training after they are released from the prison. Regarding the effects of training as
well as social and family support on crime commitment, the results of this study were consistent with the results of the study of Larni in Australia in which the prisoners who committed the were people with lower level of education and social and family supports that committed more severe and heavier various crimes such as murder so they were sent back to prison again. According to Larni, for the best intervention to help for preventing the occurrence of crime and ecidivism is increasing childhood supports, providing supportive programs for poor families. He also believes that, supporting parents, improving the methods of marriage among families and reforming alcoholics and drug addicts is also effective in preventing the crimes [22]. The results obtained from this study were inconsistent with the results of a study conducted by Cordero on self-esteem and imprisonment because the result of his study indicated that there was no correlation between recidivism event and self-esteem [18]. It can be related to people’s attachment to subcultures that affect crime event for them. In addition, it can be related to the spirit of militancy and high risk taking in people that explain. A study conducted by Baratvand on the relationship between self-esteem and crime commitment in prisoner and non-prisoner people in Ahvaz showed that there is a significant difference between prisoners and non-prisoners’ self-esteem [35]. The reason of inconsistency between the results of this study and the results of some other studies can be attributed to different factors such as prison environment, crimes committed by prisoners, the type of social relations within the prison, as well as the effect of different social and family cultures on them. In general, the results of the study indicate a relationship between indicators of low social support and self-esteem and recidivism that they can be attributed to conditions governing culture of the society, the conditions of prisoners’ families, prisoners’ place of imprisonment, and the sense of guilt, disappointment and feeling ashamed of guilt [36]. The role of self-esteem as a predictor for recidivism event is proposed and considered as one of the main factors of crime event. One of the main obstacles for the youth is employment. As the results of the study showed the majority of the offenders was unemployed and in the age range of youth group. According to the results of the study, it is suggested that prisons’ organization in collaboration with educational institutions provide training courses proportional with prisoners’ duration of condemnation that the result will be decreased opportunities for learning crimes during the period of their sentence. To solve the problem of unemployment it is recommended that professional technical organization and other supportive institutions such as Labor Department provide the conditions for young people to learn the necessary skills so that after completion of their condemnation they can find a job in the job market, and also provide employment opportunities for appropriate work for them so that they distance themselves from deviant behaviors.

Although recidivism scale may not have the needed clarity, it is completely clear that its high rates will endanger public security and intensify the costs of law enforcement and criminal justice. The growth of criminal population and high rates of recidivism impose personal and social substantial costs. Nowadays there is an increasing expectation of prisons so that it is expected that prisons be places to keep offenders and change them into law-obedient citizens. There are some suggestions for country’s policymakers to reduce recidivism as follows: (a) Treatment of drug abuse or mental illnesses can help to remove obstacles of employment and integration, (b) Training provides the necessary skills for prisoners to find a variety of jobs that lead to more successful results, (c) Employment for prisoners released in addition to achieving revenue, strengthening their return to community because of developing stability and self confidence, (d) Attention to the needs of released prisoners, as prisoners with a history of recidivism have more risk to commit crime, so attempts to reduce their needs with increasing supportive resources will
help to increase security in the community.
One of the major limitations of this study was
prisoners’ low literacy level so that more than half
of them had primary-level education. Another
limitation was that women were absent in the
study. Small sample size was another limitation
of the study because according to the study’s
design and conditions the samples were selected
for the study that had the terms of inclusion i.e.
having history of recidivism more than 2 times.
In choosing sample size, all eligible prisoners in
this study were identified and then the samples
were randomly selected, but issues like some
prisoners’ absence or leave or the fact that some
appropriate samples did not cooperate with the
study can affect the study’s result.

**Conclusion**
The results of this study indicate that the
existence of supportive services including the
presence of consultants in prisons is necessary.
The target prisoners should be identified and
trained in order to improve their damaged self-
esteem Their needs should also be eliminated
to prevent recidivism event. Also the results
of the present study indicate the necessity of
the presence of supportive systems and care
centers after prisoners are released to control
and take care of them so that by identifying
their strengths and creating employment and
relieving poverty the event of heavier crimes in
society by them can be prevented.

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**Contributions**
Study design: MM
Data collection and analysis: GhM, UGh, MM
Manuscript preparation: MM, RM

**Conflict of Interest**
"The authors declare that they have no
competing interests."

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