



Research Paper: A Comparison of Personality Characteristics, Perceived Social Support and Interpersonal Relationships in Prisoners who Successfully Return to Society and Prisoners who Reoffend



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Abstract

Objective: The purpose of this study was to compare personality traits, Perceived Social Support, and interpersonal relationships between two groups of prisoners: those who successfully reintegrated into society and those who re-offended.

Methods: This research employed a causal-comparative method. The statistical population consisted of all individuals with a prison record in the central prison of Tehran city within the last 10 years (from 2014 to 2024). The sample size was 159 individuals (88 recidivists and 71 successfully reintegrated individuals), selected through purposive sampling in two groups: recidivists and successfully reintegrated individuals. Participants were assessed using NEO-Five Factor Inventory (NEO-FFI), The Multidimensional Scale of Perceived Social Support (MSPSS), and the Barton Communication Test Revised. The data were then entered into SPSS-22 statistical software for analysis and analyzed using analysis of variance and independent t-tests.

Results: The findings revealed that among personality traits, significant differences between the two groups were observed only in the two dimensions of extraversion ($P < 0.001$) and conscientiousness ($P < 0.001$), as well as in the total score of Perceived Social Support ($P < 0.003$) and interpersonal relationships ($P < 0.003$). The comparison of means indicated that the meaning of these dimensions was higher in the successfully reintegrated group.

Conclusion: Based on the findings, it can be concluded that psychological variables such as extraversion and conscientiousness personality traits, as well as Perceived Social Support and appropriate interpersonal relationships, play a crucial role in successful reintegration into society and prevent re-offending.

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1. Introduction

Statistics and data indicate that most individuals with a history of imprisonment face difficulties reintegrating into society, and there is a high probability of them re-engaging in criminal behavior and returning to prison (Yagoubi & Elmi, 2017).

According to available statistics in the country's prisons, approximately 25 to 30 percent of prisoners are repeat offenders with a history of returning to prison (Sanatkhan et al., 2021). Research shows that two-thirds of prisoners are likely to re-offend within the first three years of their release from prison (Jolliffe, 2013). Therefore, studying the factors associated with recidivism is crucial for public planning.

In fact, knowledge about the risk factors associated with recidivism can help prevent or intervene with the aim of providing better and more appropriate rehabilitation and correctional programs (Piquervo et al., 2015). Also, based on reports published in the last two decades, prisoners experience a higher rate of mental health problems compared to the general population (Jones et al., 2011). Although some research has pointed to the effects of the closed and restricted prison environment and the intense psychological pressure exerted on prisoners in these environments, this issue is not limited to the period of imprisonment.

In fact, the results of some other studies also show that most prisoners, individuals with a history of crime and delinquency, in many cases lose irreplaceable opportunities in terms of work, education, marriage, etc. (McDonald et al., 2020). The existence of

such an unfavorable criminal record has extensive effects on their future lives, and these individuals are usually rejected by society and family, and their return to society as a normal individual faces many problems (Ray et al., 2021).

Results from various studies on prison populations have shown that personality traits, as well as individual psychological factors, influence the likelihood of committing crimes and even their susceptibility to punishment (McDonald et al., 2020). Personality traits are variables whose relationship with mental health has been a focus of researchers. Eysenck (1956) believed that there are three main factors in personality, namely extraversion, neuroticism, and psychoticism, and showed that extroverted individuals require higher levels of environmental stimulation due to the biological structure of their nervous system. Extroverts, due to their intense need for excitement and stimulation, become bored very quickly. Therefore, there is a high probability that they will behave against the law and society. Neuroticism is also considered an important factor in adult crime. In general, Eysenck's theory has emphasized that criminal and antisocial individuals score higher in the extraversion dimension (Babaie et al., 2021). Research on comparing personality traits in prisoners has shown that male prisoners have different scores in conscientiousness compared to non-prisoners (Eriksson et al., 2017).

Research conducted by Heaven and Virgen (2001) and Jolliffe (2013) has shown that low scores in agreeableness and conscientiousness play a role in the

occurrence of delinquency, and extraversion, openness, and neuroticism are not associated with delinquency. Jones et al. (2011) concluded that some personality traits can distinguish delinquent individuals from non-delinquent peers.

Another variable that can influence the successful reintegration of prisoners into society is the level of perceived social support. The concept of social support is very broad and can have many applications in various physical, psychological, and social dimensions, leading to the growth of an individual's physical, psychological, and social well-being (Anbäcken et al., 2021). Social support is a crucial factor that plays a decisive role in promoting social and psychological health. Social support has been described as networks of relationships that provide companionship, cooperation, and emotional reinforcement, and facilitate health-promoting behaviors. Social support moderates psychological pressures on individuals and improves mental health (Poordad et al., 2019). People who have a lot of social support experience a greater sense of belonging and self-esteem. Brunton-Smith and McCarthy (2017), in a study titled "The Effects of Imprisonment on Families Based on Longitudinal Recidivism Assessment," concluded that family relationships play a significant role in returning to prison, and in this regard, family rejection can be an influential factor in returning to prison. Wills (1985) states that low social support can be considered as one of the predictors of committing a crime. In general, it can be said that the lack of positive social relationships can lead to negative psychological states such

as anxiety or depression. Also, family social support predicts individuals' mental health and has direct effects on the success and health of an individual's life, acting as a protective shield (Damerchi Lou et al., 2023).

Furthermore, Bahadori khosroshahi & Khanjani (2018) also demonstrated in their study that in addition to personality traits, mood disorders, and negative effect, another factor such as impaired social functioning and lack of appropriate communication skills is associated with the rate of delinquency and problems of young offenders. On the other hand, regarding the relationship between emotion regulation and personality traits in offenders, the results showed that agreeableness and positive emotions help extroverted individuals, compared to introverts, to have a wider network of interpersonal relationships and thus be able to skillfully provide a network of social support for themselves. Alongside their dominance, they can align and harmonize others with themselves, a phenomenon observed in the ringleaders of delinquent groups among adolescents. In this regard, the results of Bahrami's research (1999) showed that the scores of criminals in the dimensions of morbid fears, anxiety, physical complaints, psychosis, depression, paranoid thoughts, aggression, interpersonal sensitivity, and obsessive-compulsive disorder are significantly higher than those of normal individuals.

Given the existing evidence regarding the likelihood of prisoners re-engaging in criminal acts (Brunton-Smith & McCarthy, 2017; Jones et al., 2011; MacDonald et al.,

2020) and the crucial concern of officials and stakeholders in every society to guide and control this group of individuals to prevent recidivism and steer them towards a healthy and purposeful life, by identifying psychological factors affecting the likelihood of re-offending, the negative material and immaterial aspects can be reduced, and the associated costs can be allocated to the education and training of these vulnerable populations. Consequently, the lack of appropriate criteria and indicators for evaluating prisoners and planning for their readiness to return to normal society, as well as identifying protective factors in follow-up programs to establish a desirable life without recidivism, is a concern for officials and stakeholders in this field. Therefore, the purpose of this study was to examine personality traits, perceived social support, and communication skills in prisoners who successfully reintegrate into society and those who re-offend.

2. Methods

2.1. Research Design, Statistical Population, Sample, and Sampling Method

This research employed causal-comparative research. The statistical population of this study consisted of all individuals who had been imprisoned in the central prison of Rasht city in the last 10 years (from 2014 to 2024) and had a history of committing crimes. The sample size was 159 individuals (71 successfully reintegrated into society and 87 recidivists), who were selected through purposive sampling based on their history of re-offending or successful reintegration into society.

The inclusion criteria for selecting the sample with a history of re-offending were individuals who had a history of being imprisoned more than once in the past year and were still in prison. For the group with successful reintegration into society, individuals were considered who had only one history of imprisonment in the last 10 years and were able to return to their normal work and life processes with the support of the prison's welfare center after their release, and who are still in contact with the prison's welfare clinics. The exclusion criteria included unwillingness to participate in the research, having mental health problems, and addiction.

2.2. Instruments

NEO-Five Factor Inventory (NEO-FFI):

McCrae & Costa (1985). developed the 60-item short version of the NEO-Five Factor Inventory, which is scored on a five-point Likert scale ranging from "strongly agree" (5) to "strongly disagree" (1). The short version is designed to assess the five basic factors of normal personality and was developed as a brief instrument for measuring these factors, primarily for use in exploratory research (Costa & McCrae, 2004). The indicators examined are the five factors, each measured by 12 items using this questionnaire. According to the research results of Costa and McCrae (2004), in each of the five factors examined, the higher the respondent's score, the greater the intensity of the respective factor (minimum scores 12, maximum 60). Therefore, higher scores indicate greater neuroticism, extraversion, openness, agreeableness, and conscientiousness. Regarding the validity of

this questionnaire, Costa and McCrae (1992) state that the short form of this questionnaire corresponds to the full version, such that the short form scales have correlations higher than 0.68 with the full questionnaire scales. In Iran, the validity and reliability of this scale have been confirmed by Haghshenas (2007), and the Cronbach's alpha coefficients for neuroticism, extraversion, openness, agreeableness, and conscientiousness were 0.77, 0.68, 0.67, 0.81, and 0.73, respectively.

The Multidimensional Scale of Perceived Social Support (MSPSS): This 12-item instrument, developed by Zimet et al. (1988), assesses perceived social support from three sources: family, friends, and significant others. The MSPSS measures the level of perceived social support by the respondent in each of the three aforementioned domains. In this test, a score of 1 is assigned to "strongly disagree" and a score of 7 is assigned to "strongly agree." Therefore, the minimum score is 12 and the maximum score is 84. The MSPSS has good internal consistency. Cronbach's alpha coefficient for the entire test is 0.91, and the alpha coefficients for its subscales range from 0.90 to 0.95 (Zimet et al., 1990). In the research by Avarideh et al. (2020), the reliability of this test using Cronbach's alpha coefficient for the entire scale was 0.89, indicating the appropriate reliability of this test.

Communication Skills Test-Revised: This test, developed by Burton (1990), consists of 18 items rated on a 5-point Likert scale, ranging from "Agree" (5) to "Disagree" (1), to assess communication abilities. The minimum score of the questionnaire is 18 and

the maximum is 90. The higher the person's score, the better their communication skills. The score obtained from communication skills is divided into three ranks: low (less than 42), medium (42-66), high (more than 66) (Heydarinejad & Saberi (2011). In Barton's studies (1990), the validity of this questionnaire has been confirmed in terms of content. Its reliability was also obtained using Cronbach's alpha method for the total score of 0.96, which indicates the appropriate reliability of this test. In the study of Safavi et al. (2016), the reliability of this questionnaire was obtained using Cronbach's alpha method for the total score of communication skills as 0.81.

2.3. Data Collection and Analysis

To conduct this research, a list of prisoners with a history of recidivism and prisoners who had successfully reintegrated into society with the assistance of the welfare center of the Gilan Province Prisons Organization was first identified. After obtaining the necessary permits and coordination, the personality traits, perceived social support, and interpersonal relationships questionnaires were administered to the prisoners inside the prison in paper-pencil format through a social worker and collected.

At the welfare center, after conducting an orientation session for the social worker and explaining the conditions for responding, clients who had successfully reintegrated into society were called and asked to answer the questions in the questionnaires. The data collection period for the questionnaires was from January 2024 to the end of June 2024.

For data analysis, SPSS_VER22 statistical software was used, and statistical methods of analysis of variance and independent t-tests were employed.

3. Results

In this study, 159 individuals (88 recidivist prisoners and 71 prisoners with successful reintegration into society) were examined in terms of demographic information and psychological dimensions (personality traits, perceived social support, and interpersonal relationships). Demographic analysis showed that the mean and standard deviation of age for the recidivist group were 40.04 and 7.38 years, respectively, and for the successful reintegration group, 42.78 and 8.77 years.

Table 1

Mean, Standard Deviation, Minimum and Maximum Values, Skewness, and Kurtosis of Research Variables, Separated by Two Groups

Component	Group	N	Mean	Standard Deviation	Minimum	Maximum	Skewness	Kurtosis
Neuroticism	Recidivism	88	36.39	6.13	24	50	0.201	-0.544
	Successful Reintegration	71	34.73	6.02	23	49	0.622	0.055
Extraversion	Recidivism	88	41.09	5.93	28	55	-0.328	0.287
	Successful Reintegration	71	44.04	4.64	37	51	0.158	-1.323
Openness	Recidivism	88	38.91	3.88	27	47	0.217	1.165
	Successful Reintegration	71	38.8	4.08	30	50	0.129	0.535
Agreeableness	Recidivism	88	38.85	5.25	23	46	-1.348	1.096
	Successful Reintegration	71	40.29	4.4	30	47	-0.402	-0.496
Conscientiousness	Recidivism	88	40.31	3.91	27	50	-0.822	1.219
	Successful Reintegration	71	43.16	3.76	35	52	0.427	0.176
Perceived Social Support	Recidivism	88	50.6	15.02	13	74	-0.479	-0.105
	Successful Reintegration	71	57.74	14.62	25	84	-0.144	-0.602
Interpersonal Communication Skills	Recidivism	88	55.3	8.92	22	74	-1.313	1.358
	Successful Reintegration	71	59.73	9.29	23	78	-1.493	1.137

The marital status and educational level of the subjects were then examined. The results showed that 22.7% of the recidivist subjects and 12.67% of the successful reintegration subjects were single, 73.9% of the recidivist subjects and 76.05% of the successful reintegration subjects were married, 3.4% of the recidivist subjects were divorced, and 11.26% of the successful reintegration subjects were divorced.

Table 1 presents the mean, standard deviation, and other descriptive statistics of the research variables (personality traits, perceived social support, and interpersonal relationships) by group.

Before analyzing the data, the assumption of normality was first examined using the Kolmogorov-Smirnov test. The results showed that the data of this study are normally distributed in both groups ($P > 0.05$). Therefore, there is no limitation in using parametric statistical methods. Subsequently, to examine and compare the five dimensions of personality between the two groups of prisoners successfully reintegrating into society and recidivist prisoners, a one-way analysis of variance

(ANOVA) was used. Therefore, the assumption of homogeneity of error variances was first examined. The results of Levene's test, considering the Levene statistic and the significance level ($P > 0.05$), showed that the assumption of homogeneity of error variances is equal in the personality traits of the two groups. Therefore, there is no limitation in using one-way ANOVA. Table 2 presents the results of the analysis of variance for comparing personality traits in the two groups.

Table 2

Analysis of Variance Results for Comparing Personality Traits in Two Study Groups

Component	Sum of Squares	Df	Mean Square	F	Sig	η^2	Power
Neuroticism	Between Groups	108.07	1	108.07	2.921	0.089	0.018
	Within Groups	5807.742	157	36.992			
	Total	5915.812	158				
Extraversion	Between Groups	341.71	1	341.71	11.71	0.001	0.069
	Within Groups	4581.194	157	29.18			
	Total	4922.903	158				
Openness	Between Groups	0.461	1	0.461	0.029	0.865	0.01
	Within Groups	2479.65	157	15.794			
	Total	2480.11	158				
Agreeableness	Between Groups	81.571	1	81.571	3.406	0.067	0.021
	Within Groups	3760.462	157	23.952			
	Total	3842.033	158				
Conscientiousness	Between Groups	319.217	1	319.217	21.524	0.001	0.121
	Within Groups	2328.422	157	14.831			
	Total	2647.639	158				

The results of the analysis of variance showed that among the personality traits, only the mean of two dimensions, extroversion ($P < 0.001$) and conscientiousness ($P < 0.001$), had a significant difference between the two groups studied. The difference between the other

groups was not significant ($P > 0.05$). The comparison of means also showed that the mean of extroversion and conscientiousness in the group of individuals with successful reintegration into society was higher than the group of prisoners with recidivism. However,

the difference in other personality traits was not significant.

Subsequently, an independent t-test was used to compare the total score of perceived

social support and communication skills between the two groups of prisoners successful in reintegrating into society and prisoners with recidivism. The results of this analysis are presented in [Table 3](#).

Table 3

Results of independent t-test to compare perceived social support and interpersonal relationships in two groups

Component	Assumption of Variance Equality	F	P	T	Df	P
Perceived Social Support	Assuming Equal Variances	0.061	0.805	-3.016	157	0.003
	Assuming Unequal Variances			-3.025	151.574	0.003
Interpersonal Relationships	Assuming Equal Variances	0.007	0.932	-3.057	157	0.003
	Assuming Unequal Variances			-3.044	147.241	0.003

The results of an independent t-test showed that there is a significant difference in the dimensions of perceived social support and interpersonal relationships between the two groups of prisoners with successful reintegration into society and prisoners who re-offended ($P < 0.05$). Comparison of the means indicated that the average level of perceived social support and interpersonal relationships was higher in the group with successful reintegration into society compared to prisoners who re-offended.

4. Discussion

The purpose of this study was to compare personality traits, Perceived Social Support, and interpersonal relationships between two groups of prisoners: those who successfully reintegrated into society and those who re-offended. The results regarding personality traits showed that among the personality traits, only the average of two dimensions, extraversion and conscientiousness, had a

significant difference between the two groups studied, and the difference between the other personality dimensions was not significant. The comparison of means also showed that the average of extraversion and conscientiousness was higher in the group of individuals who successfully reintegrated into society than in the group of recidivist prisoners. However, the difference in other personality traits was not significant. These results were consistent with the findings of studies ([McDonald et al., 2020](#); [Eriksson et al., 2017](#); and [Babaie et al., 2021](#)).

In explaining these results, it can be stated that personality traits are variables whose relationship with mental health has always been a focus of researchers in studies. Research on the comparison of personality traits in prisoners has shown that male prisoners have different scores in conscientiousness compared to non-prisoners ([Eriksson et al., 2017](#)). In general, to explain

the results obtained regarding the higher level of extraversion and conscientiousness in the group of individuals who successfully reintegrated into society, it can be stated that it seems that individuals' difficulty in communicating and expressing their needs in a healthy way is related to low scores in extraversion and plays a role in explaining theft. In fact, extraversion has a direct relationship with emotional health. Individuals who are high in extraversion and low in neuroticism are genetically predisposed to emotional stability (Babaie et al., 2021).

Conscientiousness indicates duty-oriented and goal-oriented behavior, and these individuals socially take control. They are organized, reliable, hardworking, self-regulating, punctual, and accurate. Individuals with low scores have the opposite of these characteristics. Prisoners' behaviors are more related to low conscientiousness. It seems that thieves have high impulsivity. These individuals use a disorganized and pleasure-seeking approach to control stressful situations through theft behaviors. Accordingly, personality traits such as conscientiousness refer to factors such as prior readiness to face life's challenges and the ability to prioritize important tasks, which increases their sense of responsibility and provides a context for making up for past mistakes and focusing on a new path in life (McDonald et al., 2020).

Also, in this study, it was found that there is a significant difference in Perceived Social Support between the two groups of prisoners who successfully reintegrated into society

and recidivist prisoners. The comparison of means indicated that the average level of Perceived Social Support was higher in the group who successfully reintegrated into society than in recidivist prisoners. These results were consistent with the findings of previous studies, including (Poordad et al., 2019; Brunton-Smith & McCarthy, 2017; Damerchi Lou et al., 2023).

In explaining the obtained results, it can be said that social support is defined as an individual's perceptions of general support or specific supportive behaviors (available or enacted) from individuals in their social network, which enhances individual functioning or acts as a protective factor against adverse outcomes. Specifically, it should be noted that perceived social support from parents, friends, and the community is associated with criminal behaviors (Ruiz et al., 2019). Therefore, when faced with problematic life factors, having social support can be considered a protective factor that increases the likelihood of an individual's success in overcoming these stressors (Iordachescu et al., 2021). In this regard, the findings of numerous studies indicate the role of perceived social support in increasing the level of effective coping strategies, enhancing individual and social functioning, quality of life, and longer lifespan in individuals (Poordad et al., 2019; Brunton-Smith & McCarthy, 2017; Damerchi Lou et al., 2023). Social support networks act as a shield against psychological pressure. The offender's confidence that they can rely on external resources leads them to perceive the external environment as less threatening and achieve greater adaptation (Kiesswetter et al.,

2020). Offenders with low perceived social support may misinterpret others' intentions and view them with pessimism. In fact, these individuals have less interpersonal trust and openness in their relationships, factors that are associated with recidivism (Shin et al., 2021).

Another finding of this research was that there is a significant difference in interpersonal relationships between the two groups of prisoners: those who successfully reintegrated into society and those who re-offended. The comparison of means indicated that interpersonal relationships were higher in individuals who successfully reintegrated into society compared to prisoners who re-offended. Therefore, the research hypothesis regarding the existence of a significant difference in the dimension of interpersonal relationships between the two groups is confirmed. These results are consistent with the findings of studies by Berondom & Moyer (2012) and Bahrami (1999).

In explaining this result, it can be stated that with the increase in migration and the growth of urbanization, the occurrence of new crimes has increased, and consequently, a fear of victimization has emerged in social relationships. Two consequences of this feeling are a decrease in social trust and a reduction in the scope of social communication and bonds. The existence of social relationships that take on a systematic form through norms and rules indicates the presence of sociality and social organization in a human habitat (Southwick et al., 2016). The quality of interpersonal relationships with others is one of the most engaging

experiences of life. Having good friends, a good relationship with parents, important people in the environment, and spouses is very important for everyone (Uchino et al., 2018). Also, there is significant evidence that such intimate and supportive relationships can have positive consequences. According to research evidence, poor quality interpersonal relationships are one of the most stressful life experiences (Daneshvarinasab, 2021). People who are deprived of even the slightest pleasant verbal communication with their parents and are constantly treated with neglect and indifference by their parents or those around them are more susceptible to various psychological, intellectual, social, and political harms than their peers. Individuals skilled in interpersonal relationships demonstrate more competent behaviors, which leads to higher vitality, adaptability, self-confidence, and self-esteem. This causes them to accept their life's problems and limitations and seek better and more appropriate coping strategies. Therefore, having stronger interpersonal relationships will help individuals either not commit a crime or, if they do commit a crime, seek help from those around them more easily and resolve their issues and avoid repeating mistakes (Seligman & Diener, 2002).

5. Conclusion

In conclusion, it can be stated that an individual who commits a crime for any reason during their life, if they have high levels of extraversion and conscientiousness, can more easily accept responsibility for their mistakes and take steps to change the existing conditions. On the other hand, criminals who

have low perceived social support may misinterpret the intentions of others and view them with pessimism. In fact, these individuals have less interpersonal trust and openness in their relationships, factors that are related to recidivism. Additionally, individuals with skills in interpersonal relationships exhibit more competent behaviors, which leads to higher vitality, adaptability, self-confidence, and self-esteem. This, in turn, enables them to accept the problems and limitations of their lives and seek better and more appropriate coping strategies. Therefore, having stronger interpersonal relationships will help individuals either not commit crimes or, if they do, seek help from those around them more easily and resolve their issues, preventing repeated mistakes.

Limitations of this study include the purposive selection of subjects, their limitation to male samples, and the focus on crimes such as financial convictions, theft, and drug-related offenses, which should be considered when generalizing the results. Furthermore, based on the research findings, it is suggested that to enhance life skills and deeper social growth and socialization of inmates after release, they participate in psychological and social enrichment classes. This will teach them how to control their emotions, plan for the future, design their goals, make decisions, and return to society as a member by expanding their interpersonal relationships and receiving more social support. Also, considering the important role of perceived social support, it is recommended that informational sessions be held for the families and spouses of prisoners

to explain the importance of their role in successful reintegration and provide a suitable environment.

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Conflicts of Interest

No conflict of interest has been reported.

References

- Anbäck, E. M., Almqvist, A. L., Johansson, C., Kinugasa, K., Obata, M., Hyun, J., et al. (2021). Older adults and care: Reshaped family roles in societal change. A comparative study of Japan, South Korea, and Sweden. In: Claster PN, Blair SL, editors. *Aging and the family: Understanding changes in structural and relationship dynamics*. Leeds: Emerald Publishing Limited. <http://dx.doi.org/10.1108/S1530-353520210000017001>
- Avarideh, S., asadi Magreh, s., Moghtader, I., Abedini, M & Mirblok, A. (2019). The Mediating role of perceived social support in the effect of interpersonal forgiveness on social health in students. *Knowledge & Research in Applied Psychology*, 488, 71-80. <https://sanad.iau.ir/en/Journal/jsrp/Article/663544?jid=663544>
- Babaie, E., Safaie, E & Hossini Soraki, T. (2021). The Comparison of Personality Traits and Cognitive Distortions of Prisoners Convicted

- of Robbery, Drugs, and Financial Crimes. *Quarterly Journal of Social Work*, 10 (36), 44-51. <https://sid.ir/paper/1011438/en>
- Bahadori khosroshahi, J & Khanjani, Z. (2018). Personality traits predicting self-control and emotional regulation in delinquents: An analysis of crime commission in terms of personality psychology. *Journal of Social Order*, 9(2), 18-1. <https://www.magiran.com/p1763816>
- Bahrami, H. (1999). *Studying the prevalence of mental disorders among prisoners and comparing it with normal individuals*, Allameh Tabatabaei University research project.
- Brunton-Smith, I., & McCarthy, D. J. (2017). The effects of prisoner attachment to family on re-entry outcomes: A longitudinal assessment. *The British Journal of Criminology*, 57(2), 463-482. <https://doi.org/10.1093/bjc/azv129>
- Burton G.(1990). Exercises in Management Manual. Boston: Houghton Mifflin College Div. DOI:10.18203/2394-6040.ijcmph20200407
- Cohen, S., Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357. <https://doi.org/10.1037/0033-2909.98.2.310>
- Costa, P. T., & McCrae, R. R. (2004). A contemplated revision of the NEO Five-Factor Inventory. *Personality and Individual Differences*, 36(3), 587-596. [https://doi.org/10.1016/S0191-8869\(03\)00118-1](https://doi.org/10.1016/S0191-8869(03)00118-1)
- Damerchi Lou, A., Ghaffari, M., Sadeghipour Roudsari, M., Rakhshanderou, S. (2024). Relationship of Perceived Social Support with Sleep Quality and Mental Health in the Elderly Referred to Health Centers in Tehran, Iran. *Salmand, Iranian Journal of Ageing*, 18 (4), 554-569. <https://dx.doi.org/10.32598/sija.2023.3565.1>
- Daneshvarinasab, A. (2021). Investigating the relationship between family functioning and mental health of prisoners on the verge of release in Kerman and Yazd prisons in 2019. *Journal of Jiroft University of Medical Sciences*, 8(2), 664-673. <https://sid.ir/paper/4>
- Eriksson, T. G., Masche-No, J. G., & Dåderman, A. M. (2017). Personality traits of prisoners as compared to general populations: Signs of adjustment to the situation? *Personality and Individual Differences*, 107, 237-245. <https://doi.org/10.1016/j.paid.2016.11.030>
- Eysenck, H. J. (1956). The inheritance of extraversion-introversion. *Acta Psychologica*, 12; 95-110. [https://doi.org/10.1016/0001-6918\(56\)90010-5](https://doi.org/10.1016/0001-6918(56)90010-5)
- Haghshenas, H. (2007). *Five-factor model of personality traits, first edition*, Shiraz: Shiraz University of Medical Sciences Publications.
- Heaven, L. C. P., & Virgen, M. (2001). Personality perception of family and peer influences and males self reported delinquency. *Personality and Individual Differences*, 30, 321-333. <http://dx.doi.org/10.1016/S0191-8869>
- Heydarinejad, S & Saberi, A. (2011). Investigating the relationship between leadership styles and the effectiveness of officials in physical education departments in Lorestan province, *Journal of Sports Sciences*, 75-87. https://journals.umz.ac.ir/article_395_95.html
- Iordachescu, D. A, Gica, C., Vladislav, E. O, Panaitescu, A. M, Peltecu, G., Furtuna, M. E., & et al. (2021). Emotional disorders, marital adaptation and the moderating role of social support for couples under treatment for

- infertility. *Ginekologia Polska*, 92(2), 98-104.
<https://dx.doi.org/10.5603/GP.a2020.0173>
- Jolliffe, D. (2013). Exploring the relationship between the Five-Factor Model of personality, social factors and self-reported delinquency. *Personality and Individual Differences*, 55(1), 47-52.
<https://doi.org/10.1016/j.paid.2013.01.014>
- Jones, S., Miller, J.D., & Lynam, D. R. (2011). Personality, antisocial behavior and aggression: A meta analytic review. *Journal of Criminal Justice*, 39(4), 329-337.
<https://doi.org/10.1016/j.jcrimjus.2011.03.004>
- Kiesswetter, M., Marsoner, H., Luehwink, A., Fistarol, M., Mahlknecht, A., & Duschek, S. (2020). Impairments in life satisfaction in infertility: Associations with perceived stress, affectivity, partnership quality, social support and the desire to have a child. *Behavioral Medicine*, 46(2), 130-141.
<https://doi.org/10.1080/08964289.2018.1564897>
- McCrae, R. R., & Costa, P. T. (1985). Updating Norman's "adequacy taxonomy": Intelligence and personality dimensions in natural language and in questionnaires. *Journal of Personality and Social Psychology*, 49(3), 710-721.
<https://doi.org/10.1037/0022-3514.49.3.710>
- McDonald, P., Grant-Smith, D., Moore, K., & Marston, G. (2020). Navigating employability from the bottom up. *Journal of Youth Studies*, 23(4), 447-464.
<http://dx.doi.org/10.1080/13676261.2019.1620925>
- Piquervo, R. A., Jennings, W. G., Diamond, B., & Reingle, M. J. (2015). A systematic review of age, sex, ethnicity and race as predictors of violent recidivism. *Offender Therapy and Comparative Criminology*, 59(1), 5-26.
<https://doi.org/10.1177/0306624x13514733>
- Poordad, S., Momeni, K., karami, J. (2019). The mediation role of social support and happiness on the relationship between gratitude and death anxiety in the elderly. *Journal of Psychological Studies*, 15(1), 57-80.
<https://doi.org/10.22051/psy.2019.22831.1763>
- Ray, B., Watson, D. P., Xu, H., Salyers, M. P., Victor, G., Sights, E., Bailey, K., Taylor, L. R., & Bo, N. (2021). Peer recovery services for persons returning from prison: Pilot randomized clinical trial investigation of support. *Journal of Substance Abuse Treatment*, 126, 108339.
<https://doi.org/10.1016/j.jsat.2021.108339>
- Ruiz, M. E., Vives, A., Puig-Barrachina, V., & Benach, J. (2019). Unravelling hidden informal employment in Chile: Towards a new classification and measurements to study its public health. *International Journal of Social Determinants of Health and Health Services*, 49(4), 817-843.
<https://doi.org/10.1177/0020731419866305>
- Safavi, M., Ghasemi panjah, P., Fesharaki, M & Esmailpour Bandboni, M. (2016). Communication skills and its related factors in guilans teaching Hospitals Nurese94. *Avicenna Journal of nursing and midwifery care*, 24(1):50-57.
- Sanatkah, A., Kamali, M., Fathi rad, N & Torki Dehsaeed, H. (2021). Study of social contexts effective in returning to prison using grounded theory strategy. *Journal of social order*, 13(1): 55-82. <https://sid.ir/paper/953626/en>
- Seligman, M., & Diener, E. M. (2002) Very happy people. *Psychological Science*, 13, 81-84. <https://doi.org/10.1111/1467-9280.00415>

- Shin, H., Lee, J., Kim, S. J., & Jo, M. (2021). Associations of symptoms of depression, social support and quality of life among Korean women who experience infertility. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 50(6), 1-12. <https://doi.org/10.1016/j.jogn.2021.06.007>
- Southwick, S. M., Sippel, L., Krystal, J., Charney, D., Mayes, L., & Pietrzak, R. (2016). Why are some individuals more resilient than others: The role of social support. *World Psychiatry*, 15(1), 77-79. <https://doi.org/10.1002/wps.20282>
- Uchino, B. N., Trettervik, R., Kent de Grey, R. G., Cronan, S., Hogan, J., & Baucom, B. R. (2018). Social support, social integration and inflammatory cytokines: A meta-analysis. *Health Psychology*, 37(5), 462-471. <https://doi.org/10.1037/hea0000594>
- Yagoubi, Moh., & Elmi, M. (2017). The role of social and family factors associated with the prisoners' returning to prison. *Journal of Sociology Studies*, 9(35), 7-23. <https://sid.ir/paper/222551/en>
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52, 30-41. https://doi.org/10.1207/s15327752jpa5201_2
- Zimet, G. D., Powell, S. S., Farley, G. K., Werkman, S., & Berkoff, K. A. (1990). Psychometric Characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 55(3-4), 610-617. <https://doi.org/10.1080/00223891.1990.9674095>