DOI: 10.5455/msm.2016.28.263-267Received: 13 May 2016; Accepted: 15 July 2016

Published online: 24/07/2016

Published print:08/2016

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ORIGINAL PAPER

Mater Sociomed. 2016 Aug; 28(4): 263-267

RELATIONSHIP OF ASSESS SELF-ESTEEM AND LOCUS OF CONTROL WITH QUALITY OF LIFE DURING TREATMENT STAGES IN PATIENTS REFERRING TO DRUG ADDICTION REHABILITATION CENTERS

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ABSTRACT

Objective: Thus, the present research was carried out aimed at determining the relationship between self-esteem and locus of control and quality of life during treatment stages in the patients referring to drug addiction rehabilitation centers of Borujen city, Iran. **Methods:** The current study was a sectional research of descriptive correlation type. The research sample was 150 individuals of patients referring to addiction rehabilitation centers of Borujen city. For data gathering, Rosenberg Self-esteem Scale, Rotter's Locus of Control Scale, and SF36 Quality of Life Questionnaire were used. Following collection of questionnaires, the data were analyzed using SPSS/16 software. **Results:** According to the results, in the 12th day of treatment, 96 patients exhibited moderate self-esteem, 102 patients had internal locus of control, and the score of their overall quality of life was 40.43±12.71. Furthermore, Pearson's correlation coefficient indicated that a significant and positive relationship was observed between locus of control and quality of life during different treatment stages. **Conclusion:** It seems that quality of life improves during addiction treatment stages due to improvement of personality traits including locus of control and self-esteem. Therefore, consultation methods as a very crucial priority in addiction rehabilitation centers shall be taken into account by the health sector authorities and managers and can play an essential role in enhancing quality of life.

Key words: Locus of control, Quality of life, Self-esteem, Addiction.

1. INTRODUCTION

Nowadays, the issue of drugs (Narcotics) has turned into one of the most important social problems with worrying dimensions during the recent years both in Iran and all over the world (1). Drug addiction has considerably increased in Iran as a mental, biological, and social problem such that number of drug addicts reached from 2 million persons in 1997 to 3 million persons in 2011 while unofficial figures have even suggested 6 million people addicted to drugs in Iran (2). Addiction affects performance and viability of the person's life and results in intensification of problems in psychological aspects. From psychological point of view, devastating influence extent of drug addiction is highly significant because the grave consequences not only embrace the addicts themselves but also detrimentally affects their

quality of life, personality dimensions, surrounding environment, and friends and family members (3, 4). Personality traits and locus of control have been proposed among the key factors for drug addiction and abuse. In general, different behaviors in individuals are caused by internal and external factors. Internal factors include impatience and fatigue or ability and motive to attempt whereas external factors comprise climatic and ambient conditions and social regulations (4). Therefore, identification of motivating factors in introvert and extrovert persons will help prediction of patients' behaviors, and hence, prevention from drug addiction. It will facilitate the effort to improve and treat them (5). The research works have demonstrated that locus of control is correlated to parameters such as self-esteem, depression, stress, and quality of life.

The researchers hold the notion that self-esteem is regarded among the determining factors in human behavior. It can therefore affect the type of individual's locus of control (6). Drug addiction influences people's self-esteem in their personal lives because such an addiction leaves many negative impacts on the self-esteem via the cognitive and psychological alterations it causes. Based on key concepts of Kaplan's Theory, low self-esteem makes the person prone to committing asocial behaviors such as drug addiction (7). On the other hand, numerous studies confirm the fact that the behaviors observed in the patient during social incompatibilities are related to low self-esteem as well as external locus of control because one of the significant consequences in conjunction with internal-external locus of control is influence of the respective factor on self-esteem (8). The individual who feel they can influence their life events enjoy mental wellbeing such as higher self-esteem and more favorable quality of life as compared to those lacking such sentiments (9). One of the personality features observed in patients is low self-esteem. Self-esteem represents an attitude of acceptance, capability, importance, success, and personal value which are normally maintained by the person (10, 11). Quality of life is a subjective concept for sense of goodness and satisfaction of life experiences that encapsulates positive and negative aspects of the individuals (12). Research evidences suggest that individuals with high self-esteem have more desirable quality of life and those with lower self-esteems tend to have more problems in adaptation to life process, which can in turn affect their quality of life and their level of life satisfaction (13, 14). Low self-esteem leads to feeling of failure, dissatisfaction of one's role in the society, dissatisfaction of quality of life, and impaired interpersonal skills and social interactions. Drug addiction causes a shift in attitudes of the surrounding people toward the addicted person. This situation in turn imparts a severe blow to the affected person's self-esteem and deprives them from the chance of selection in their life giving them a sense of despair and vulnerability (15). It also makes the individuals feel guilty, and thus, influences their quality of life and their life satisfaction (16). Taking into account statistics of drug addiction in Iranian society and impact of this plight on mental health and quality of life, it is absolutely vital to analyze the factors affecting this phenomenon especially in personal behavior and personality domains, and, since such patients are presumed among the damageable strata of the society, they shall be provided with necessary attention and supports and their requirements in physical, mental, social, and spiritual dimensions must be determined (17).

2. OBJECTIVE

Accordingly, the present research was conducted with the general intent of analyzing the relationship between self-esteem and quality of life during addiction treatment stages in patients of Borujen city.

3. MATERIALS AND METHODS

The current study is a sectional research of descriptive correlation type which was carried out aimed at assessing the relationship of self-esteem and locus of control with quality of life in patients referring to drug addiction rehabilitation centers of Borujen city during treatment stages. Sample size was estimated equal to 150 persons taking into account a confidence interval of 95% and statistical power of 80% and assuming correlation coefficient between the respective variables r=0.25 in order to consider the relationship between three variables as statistically significant. In the current study, accessible sampling method was applied to select the research units (examinees). Accordingly, the individuals referring to Borujen city's drug addiction rehabilitation centers were selected for the study in the first, third, sixth, and twelfth days of their treatment provided that they possessed the specifications of the examinees under study and also they were willing to participate in the research. The researcher personally attended the aforementioned centers during the week and distributed the questionnaires among examinees after introducing themselves, expressing the research objectives, providing the needed explanations about how to fill the questionnaires, and finally, taking written consent forms from the patients. Sampling of the study resumed until reaching to the desired sample size and lasted about 6 months. It must be also mentioned that the questionnaires were given to each research examinee in four occasions. The respective days were specified by the pharmacology specialist (the project's advisor). The data of the present research were gathered using Rosenberg's Self-esteem Scale, Rotter's Locus of Control Scale, and SF36 Quality of Life Questionnaire. It is noteworthy that the first section of the questionnaires belonged to personal questions such as age, gender, marital status, occupational status, education level, drug addiction duration, and so on. Rosenberg's Self-esteem Scale consists of 10 general statements. The answers are evaluated based on LIKERT's four-choice scale and scoring ranges from 0 to 3 as follows: strongly disagree (0), disagree (1), agree (2), and strongly agree (3). The highest possible score is 30.

Scores higher than 25 indicate high self-esteem, scores between 15-25 show moderate self-esteem, and those below 15 represent low self-esteem. This tool is a standard questionnaire whose reliability was confirmed based on opinions of designers and different preliminary studies. Results of the researches conducted by Greenberger, Chen, and Farruggia reported internal consistency of this scale equal to 0.84. Also, Mohammadi and Sajjadi reported Cronbach's alpha and split-half coefficients of Rosenberg's Self-esteem Scale on University of Shiraz students equal to 60.0 and 68.0 respectively and retest coefficients of the aforementioned scale were reported to be 0.73, 0.77, and 0.78 (18). Rotter's Locus of Control Scale is measured with 29 questions. The score of examinees in this scale ranges from 0 to 23. The person having internal control receives a score below 12 and the person having external control gains a score equal to or greater than 12 in Rotter's Scale. The respective test is characterized by a high validity and has been deployed in many research works so far. In his research, Hassan Shahi obtained validity of Rotter's Locus of Control equal to 0.78 using Cronbach's alpha technique. Khosrowabadi in his research obtained the reliability coefficient of this test equal to 0.89 and Ebrahimi Qavam reported it equal to 0.79 (19).

SF36 Quality of life Questionnaire contains 36 questions that evaluate different aspects of the person's health.

Generally, 8 aspects (physical performance, limitation to play physical role, physical pain, general health, vitality, social performance, limited mental role, and mental health) can be incorporated in two general dimensions of quality of life i.e. mental and physical dimensions. The person receives a score between 0 and 100 in each dimension; the scores nearer to 100 signify better quality of life. Reliability and validity of the Persian translation of this questionnaire were confirmed in the study by Montazeri et al. Standard reliability coefficients ranged from 0.77 to 0.99. In terms of validity, the convergence of variations was in the range between 0.58 and 0.95 (20). In the present study, reliability of the former questionnaire was evaluated by Cronbach's alpha method such that the researcher handed in aminees. After collection of questionnaires, Cronbach's alpha coefficient was reported to be 0.90 for the respective evaluation tool based on the outputs of SPSS/16 software. The qualification criteria of the research were: 1- The research units (examinees) shall be present in the center in the first, third, sixth, and twelfth days of the treatment period. 2- They shall refer to the drug addiction rehabilitation centers for acquiring medical or consultation services. 3- They shall not have acute or chronic mental and physical disorders. 4- They must be 18 years or older. 5- The patients shall be able to respond to the questions. It is noteworthy that unwillingness of examinees to collaborate due to personal and cultural problems and lack of qualification criteria were the disqualification milestones. The data were analyzed using SPSS/16 software. Descriptive statistics were used for adjusting the tables. To achieve the research objectives, Pearson's correlation coefficient, independent t, one-way ANOVA, chi-square and Fisher statistical tests were applied.

4. RESULTS

Based on the research findings, 88.7% of the research examinees were male and only 11.3% were female. The largest frequency (36%) of patients was in the age group 26-35 years and the smallest frequency (15.3%) belonged to the age group of over 45 years. 38% of the examinees were single and 31.3% were married. Other specifications of research examinees are included in Table 1. The re-

search results indicated that 96 persons of the examinees had moderate self-esteem in the 12th day of their treatment period. 102 persons had internal locus of control and their overall quality of life score was 40.43±12.71. Most of them had external locus of control in the first day of treatment.

Frequency	Varia	lles Frequency		Variables	
88 (58.7%) 62 (41.3%)	Yes No	Drug con- sumption in family	80 (53.3%) 70 (44.3%)	Yes No	Treatment record
50 (33.3%) 37 (24.7%) 63 (42%)	Sufficient Rather suf- ficient Insufficient	Sufficiency of monthly salary	41 (27.3%) 54 (36%) 32 (21.3%) 23 (15.3%)	25> 26-35 36-45 70≤	Age
17 (11.3%) 133 (88.7%)	Female Male	Gender	47 (31.3%) 57 (38%) 36 (24%) 10 (6.7%)	Married Single Divorced Deceased Spouse	Marital status
32 (21.3%) 17 (11.3%) 13 (8.6%) 37 (24.3%) 6 (4%) 41 (27.3%) 61 (40.6%)	Student Household Retired Employee Disabled Unemployed Unofficial Job	Occupa- tional status	5 (3.3%) 50 (33.3%) 63 (42) 25 (16.7) 7 (4.4%)	Illiterate Under diploma High-school diploma Bachelors' & Masters'	Educational Level

the questionnaires to 30 persons of the ex- Table 1. Frequency distribution of demographic information of research examinees

Standard deviation	Mean	Percentage	Frequency	Variabl	e	
		62	93	Low (>15)		
5.59	11.74	21.33	32	32 Moderate (15-25)		
		16.66	25	High (<25)		
4.59	43.64	82	123	External	Locus of con-	
		18	27	Internal	trol 1	
	39.2	16±9.27		Overall quality of life	Quality of life 1	
4.82	11.48	64.66	97	Low (>15)		
		20	30	Moderate (15-25)		
		15.33	23	High (<25)		
6.68	43.44	66	99	External	Locus of control 3	
0.00		34	51	Internal		
	33.	03±0.3		Overall quality of life	Quality of life 3	
4.73	12.67	23.33	35	Low (>15)		
		20	30	Moderate (15-25)	Self-esteem (
		19.33	29	High (<25)		
6.42	43.77	42	63	External	Locus of con- trol 6	
		58	87	Internal		
39.43±10.53			Overall quality of life	Quality of life 6		
4.65		20.66	31	Low (>15)	Self-esteem 12	
	12.73	64	96	Moderate (15-25)		
	12.75	15.33	23	High (<25)		
4.15	43.88	32	48	External	Locus of control 12	
		68	102	Internal		
	40.4	3±12.71		Overall quality of life	Quality of life	

Table 2. Frequency and distribution of mean and standard deviation of self-esteem and locus of control scales during treatment stages in the patients referring to drug addiction rehabilitation centers

Majority of research examinees (62%) exhibited low self-esteem in this stage. Their overall quality of life was 39.16±9.27. The self-esteem of majority (64.66%) was low in the third day. Most of them had external locus of control and their overall quality of life in this stage of treatment was 33.03±0.3. In the

Variables	Locus of control in the 1st day of treatment	` '	Locus of control in the 6th day of treatment		Quality of life in the 6th day of treatment
	Pearson's cor- relation coef- ficient	Pearson's correlation coefficient	Pearson's correlation coefficient		Pearson's corre- lation coefficient
Self-esteem	=0.21 P=0.628	= 0.023 P =0.650	Self-esteem 6	= 0.088 P= 0.081	= 0.024 P= 0.634
Locus of control 1		= 0.236 P= 0.011	Locus of control 1		= 0.119 P= 0.011
Variables	Locus of control in the 3rd day	Quality of life in the 3rd day of treatment	Variables	Locus of control in the 12th day	Quality of life in the 12th day of treatment
Self-esteem 3	= 0.428 P= 0.01	= 0.163 P = 0.008	Self-esteem 12	= 0.236 P*= 0.011	= 0.378 P = 0.024
Locus of control 3		= 0.302 P*= 0.016	Locus of control 12		=0.655 P= 0.011

Table 3. The relationship between self-esteem, locus of control, and quality of life during treatment stages in the patients referring to drug addiction rehabilitation centers

6th day, 85 persons had moderate self-esteem but the majority had external locus of control. In this stage of treatment, the average score of their overall quality of life was 39.43±10.53 (Table 2). Based on Pearson's correlation coefficient, locus of control was significantly correlated to quality of life in the patients in the first day of their treatment (P*=0.001 & r_s=0.236) whereas this correlation was observed between self-esteem and locus of control (P*=0.001 & r_s=0.628) and between self-esteem and quality of life (P*=0.019 & r =0.163) and between locus of control and quality of life (P*=0.019 & r_s=0.302). A significant relationship was also obtained between locus of control and quality of life (P*=0.001 & rs=0.119) in the sixth day of treatment while significant relationships were achieved in the twelfth day of treatment in the research examinees between self-esteem and locus of control (P*=0.011 & r =0.236), between self-esteem and quality of life (P*= $0.024 \& r_s$ =0.378), and between locus of control and quality of life (P*=0.001 & r_s =0.655) (Table 3). Also, according to the findings of the present research, a significant relationship was seen between age and self-esteem (F=2.832 & P=0.032) and locus of control (F=2.867 & P=0.003). Results of one-way analysis of variance (ANOVA) indicated there were significant statistical differences between marital status and self-esteem (F=4.016 & P*=0.001) and locus of control (F=5.353 & P*=0.001). Also, there were statistically significant differences between education level and self-esteem (F=3.905 & P*=0.016), between occupational status and self-esteem $(F=3.432 \& P^*=0.004)$ and quality of life $(F=3.165 \& P^*=0.033)$. Independent t-test findings also showed that drug addiction treatment record was significantly related to quality of life (t=1.22 & p=0.005).

5. DISCUSSION

The findings of the present research indicated that the research examinees had higher quality of life (40.43±12.71) in the 12th day of their treatment. Also, 96 persons assumed moderate self-esteem and 102 had internal locus of control. In this regard, in a study aimed analyzing gender difference in health-related quality of life between cannabis consumers and healthy individuals, Shaul et al reached to the conclusion that the patients had lower quality of life during canna-

bis consumption (21). The research findings also match the results acquired in the study by Cayuela et al. They also concluded in their study that the lives of individuals are affected during the addiction trend and this phenomenon causes problems in psychological dimensions (14). Similarly, Kounenou inferred in his research that drug addiction influences self-esteem of patients (22). In other studies, the results demonstrated that addiction would impact the individuals' self-esteem in their personal lives because addiction leaves many negative impacts on the people's self-esteem by imposing cognitive and psychological-mental alterations. In the present research,

majority of individuals had external locus of control in the first day of treatment and experienced low self-esteem in the same stage (23).

Maqsud holds the belief that the individuals who feel unable to affect life events have lower mental health such as self-esteem and less favorable quality of life than those who feel the opposite (6). The finding of the study by Schuler & Maccio also corroborates this fact (10). Koenig confirmed this finding in his research as well (24). In another research on this subject, Amanpreet states that the personality of individuals including their self-esteem can be known as the most significant factor affecting compatibility, health, and plays a substantial role in creation, reduction, and elimination of symptoms of mental disorders (25). Furthermore, the findings of the current study manifested that direct and significant relationships were observed between selfesteem and locus of control, self-esteem and quality of life, and locus of control and quality of life. Hoseinifar et al also reached to the conclusion in their research that quality of life was significantly related to mental health (26). Results of the study by Cayuela et al. also attested this finding (14). Research evidences are suggestive of the fact that the individuals with high self-esteem have more favorable quality of life and those having lower self-esteem undergo more problems in adaptation to their life trends, which in turn might affect their quality of life and life satisfaction. From the standpoint of behavioral and psychological sciences, mental and physical states originate from mental-psychological arrangement and thinking style. Thinking more vastly and more healthily would further deepen people's objective lives. It is our thinking style that determines our quality of life (27, 28). It needs to be mentioned that the challenges associated with choosing the patients were out of the researcher's control owing to issues such as illness, unwillingness to collaborate, and their personal and cultural problems and are hence considered as the problems and restrictions of the conducted research.

6. CONCLUSION

Overall, based on the findings acquired from the present research, it can be asserted that further requirement is

felt in the personal behavior and personality aspects of the addiction patients in addition to taking appropriate medical procedures for this social pitfall. Also, the respective patients shall be provided with adequate attention and supports and their requirements in physical, mental, social, and spiritual dimensions have to be determined because all their mental and physical dimensions must be taken into account for providing high-quality services to this group.

- Acknowledgements: The current study was related to the research project ratified by the Deputy of Researches and Technology ShahreKord University of Medical Sciences under the number 1593 and ethics code 1392-01-92-1582. I hereby express my deep gratitude toward the respectable Deputy of Researches and Technology of ShahreKord University of Medical Sciences and all drug addiction rehabilitation centers in Borujen city that assisted us in this research work.
- Author's contribution: all authors were included in all phases of preparing this article, including final proof reading.
- · Conflict of interest: none declared.

REFERENCES

- Mohseni Far S, Mostashari G, Vazirian M. Opiate dependence treatment protocol with agonist drugs. Tehran: Department of Substance Abuse Prevention and Treatment Department of Health and Medical Education. 2008.
- Naderi N, Binazadeh M, Sefatian S, Asghar Peyvandi A. Comprehensive text book of addiction: Dependence to different substances and their pharmacological and non-pharmacological treatment. Tehran, Iran: Drug Control Headquarters. 2009.
- Ziaaddini H, Sharifi A, Nakhaee N, Ziaaddini A. The prevalence of at least one-time substance abuse among Kerman pre-university male students. Addiction and Health. 2011; 12(3-4): 103-10.
- Brook DW, Rubenstone E, Zhang C, Morojele NK, Brook JS. Environmental stressors, low well-being, smoking, and alcohol use among South African adolescents. Social science & medicine (1982). 2011; 72(9): 1447-53. doi: 10.1016/j.socscimed.2011.02.041
- Sengul Y, Kara B, Arda MN. The relationship between health locus of control and quality of life in patients with chronic low back pain. Turkish neurosurgery. 2010; 20(2): 180-5. doi: 10.5137/1019-5149.JTN.2616-09.1
- Judge TA, Erez A, Bono JE, Thoresen CJ. Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? Journal of personality and social psychology. 2002; 83(3): 693-710.
- Fernandez S, Balakrishna N, Vazir S, Bentley M, Johnson S, Engle P. Erratum to: Maternal self esteem and locus of control relates to the quality of young children's environment (HOME) in rural Andhra Pradesh, India: Research and policy implications. International Journal of Early Childhood. 2009; 41(1): 87-8.
- 8. Momtazi S, Rawson RA. Substance abuse among Iranian high school students. Current opinion in psychiatry. 2010; 23(3): 221-226. doi: 10.1097/YCO.0b013e328338630d
- Friese M, Hofmann W. Control me or I will control you: Impulses, trait self-control, and the guidance of behavior. Journal of Research in Personality. 2009; 43(5): 795-805.
- Maccio EM, Schuler JT. Substance use, self-esteem, and selfefficacy among homeless and runaway youth in New Orleans. Child and Adolescent Social Work Journal. 2012; 29(2): 123-36.
- Nasir R, Zamani ZA, Ismail R, Yusooff F, Khairuddin R. Selfesteem and cognitive distortion among women involved in prostitution in Malaysia. Procedia-Social and Behavioral Sci-

- ences. 2010; 5: 1939-44.
- 12. Li X, Tan H, Sun Z. Quality of life for drug abusers accepting methadone maintenance treatment. Zhong nan da xue xue bao Yi xue ban. Journal of Central South University Medical sciences. 2008; 33(7): 601-5.
- 13. Wheeler SB. Effects of self-esteem and academic performance on adolescent decision-making: an examination of early sexual intercourse and illegal substance use. Journal of Adolescent Health. 2010; 47(6): 582-90.
- Cayuela A, Rodríguez-Domínguez S, Otero R. Deteriorated health-related quality of life in healthy male smokers. Archivos de Bronconeumología (English Edition). 2007; 43(2): 59-63.
- Portrait AC. 18 Low Self-Esteem People. Extending Self-Esteem Theory and Research: Sociological and Psychological Currents. 2006: 400.
- Karow A, Reimer J, Schäfer I, Krausz M, Haasen C, Verthein U. Quality of life under maintenance treatment with heroin versus methadone in patients with opioid dependence. Drug and alcohol dependence. 2010; 112(3): 209-15. doi: 10.1016/j. drugalcdep.2010.06.009
- Trujols J, Garijo I, Siñol N, del Pozo J, Portella MJ, de los Cobos JP. Patient satisfaction with methadone maintenance treatment: the relevance of participation in treatment and social functioning. Drug and alcohol dependence. 2012; 123(1): 41-7.
- Barkhordary M, Jalalmanesh S, Mahmodi M. The relationship between critical thinking disposition and self esteem in third and forth year bachelor nursing students. Iranian Journal of Medical Education. 2009; 9(1): 13-9.
- Kaldi A MR. Assessment of External and Internal Control Resources in Recurrent Addiction in Zanjan Camp of Work Therapy. Social Welfare Journal. 2012; 3(9): 307-31.
- Montazeri A, Goshtasebi A, Vahdaninia M, Gandek B. The Short Form Health Survey (SF-36): translation and validation study of the Iranian version. Quality of life research. 2005; 14(3): 875-82.
- Lev-Ran S, Imtiaz S, Taylor BJ, Shield KD, Rehm J, Le Foll B. Gender differences in health-related quality of life among cannabis users: results from the National Epidemiologic Survey on Alcohol and Related Conditions. Drug and alcohol dependence. 2012; 123(1): 190-200.
- Kounenou K. Exploration of the relationship among drug use & alcohol drinking, entertainment activities and self-esteem in Greek University students. Procedia-Social and Behavioral Sciences. 2010; 2(2): 1906-10.
- McGregor C, Srisurapanont M, Jittiwutikarn J, Laobhripatr S, Wongtan T, White JM. The nature, time course and severity of methamphetamine withdrawal. Addiction (Abingdon, England). 2005; 100(9): 1320-9.
- 24. Koenig HG. Spirituality, wellness, and quality of life. Sexuality. Reproduction and Menopause. 2004; 2(2): 76-82.
- 25. Singh A. Strategies adopted by wives of addicts: A sociological study of women in rural Punjab, India. International Journal of Sociology and Anthropology. 2010; 2(8): 162.
- Hoseinifar J, Zirak SR, Shaker A, Meamar E, Moharami H, Siedkalan MM. Comparison of quality of life and mental health of addicts and non-addicts. Procedia-Social and Behavioral Sciences. 2011; 30: 1930-4.
- Zeigler-Hill V. The connections between self-esteem and psychopathology. Journal of Contemporary Psychotherapy. 2011; 41(3): 157-64.
- Flouri E. Parental interest in children's education, children's self-esteem and locus of control, and later educational attainment: Twenty-six year follow-up of the 1970 British Birth Cohort. British journal of Educational psychology. 2006; 76(1): 41-55.