Ascertainment of individual specifications of addicts admitted to Tehran Treatment Centers

Moraveji M, MS.c¹, Sahebalzamani, Ph.D², Bazargan M, MD³

¹ Dept of Nursing, zanjan Branch, Islamic Azad University. Zanjan, Iran.

² Dept of Nursing, Tehran Branch, Islamic Azad University. Tehran, Iran.

³ Tehran Uni. of medical sciences, Tehran, Iran.

Abstract: *Purpose:* This is an analytical-descriptive study aimed at analyzing individual specifications of addicts who have gone to treatment centers of Tehran in the year 2006. *Materials and Methods:* Investigation members were all addicts admitted to treatment centers of Tehran, investigation method was random sampling, investigation place was rehabilitating drug addicts and NGOs, the number of all members was 256 and input assembling instrument was questionnaires comprising Demography and MMPI questionnaire. The results are derived from descriptive and deductive statistics and are analyzed by SPSS software. *Results:* The results demonstrate the fact that 19.1% of addicts are jobless, 38% are lessees, 2.3% are illiterate, 60.5% are single and 57.8% of them have an income of less than 2,000,000 Rials, reflecting the fact that unemployment has no relation with the tendency to addiction - Even those with high economic and educational position have a great tendency to addicts consists of 7.81% in mania, 28.12 % SC, 12.5% in paranoia, and 33.98% in unsociability, 12.5% mysterious, 57.42% in depression and 22.26 in self-assumption of illness, reflecting disorder in their personality. *Conclusion:* So, according to MPI, if the results of D, PD and SC in addicts are high and the L and K rates are low, treatment and consulting service is advised.

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Introduction:

Identifying personality of the addicts receiving services in treatment centers of Tehran

When talking about children's disorders and problems, drug abuse (including natural and manmade drugs) should be taken into special account, due to direct relation between addiction and health problems and developmental disorders in children, even in embryos.

According to historical and anthropological researches, in ancient times, taking drugs was limited to only adults and there have never been any tendency among the young towards drugs. Drugs were taken by certain groups and on special occasions. The most important thing about this way of taking drugs was that they never resulted in addiction.

Later on, when morphine, heroin, and cocaine came in some cases of addiction were seen among the young. However, by the midst of 1960s, the number of addicted were too small to attract the social attention in wide range.

It was only in late 1960s that taking drugs was suddenly prevalent among the young and teenagers, and became a worldwide multi-aspect problem, spreading out from one continent to another. (Gysp D. Gnavr, 1987)

Now, tens of years after prevalence of

drug abuse, the question "does addiction have any age limit?" seems a warning one; the answers given angrily by parents, teachers and authorities are threatening.

According to statistical reports, the starting age of addiction is estimated between 16 and 20, although young adults are more at risk. The average age of addiction in prisons is 29 and 27 in selfintroducing centers for rehabilitating drug addicts. Domestic researches have shown that most of country's addicts are between the ages 15 and 27. (Zakariyaee, pp 12-13, 2003)

According to 1381 census figures, taken by the Drug-fighting Center of NAJA, nearly 5% of addicts are under 15, about 31% are between 15 and 30, 31 to 45% arrested or admitted addicts are 15 - 30 years old. Such a growing trend towards addiction indicates that common methods of addict prevention, drug rehabilitation, or drug-fighting measures have not been effective. (Zakariyaee, pp 12-13, 2003).

Considering the above facts, the purpose of this research is to study characteristics of the addicts, who go to addict rehabilitation centers in Tehran, based on short 71-question form of Minnesota Multiphase Personality Inventory (MMPI).

In other words, the main question is this: "Is there any morphological model of addicts or not?" if any, how can it be expressed by demographic factors? To find out, the following questions were brought up and investigated:

1- Are personal, social, and familial characteristics of the admitted addicts different?

2- How much anti-social are they?

- 3- How much paranoid are they?
- 4- How much depressive are they?
- 5- How much maniac are they?
- 6- How much hypochondriac are they?
- 7- How much hysterical are they?
- 8- How much neurasthenic are they?
- 9- How much do they suffer from schizophrenia?

10- Are their scores on L scale of MMPI test different?

11- Are their scores on F scale of MMPI test different?

12- Are their scores on K scale of MMPI test different?

Method:

This research is of post-event kind. The statistical community of the research includes the addicted men who go to self-introducing centers to be helped abandon the habit and return to their families and society. The Available 256 addicted men were selected.

Tools of research:

Minnesota Multiphase Personality Inventory (MMPI)Demographic questionnaire containing questions on personal, familial, social and economic background of addicts Hathaway, LR, and McKinley, JE designed MMPI test in Minnesota University in 1943. The main form contains 556 questions and has been administered to both individuals and groups of people over 16 years old. This test measures present time and is formed of 9 questions and several/a few short forms. Its short 71-question form was used in this research to test personality traits of sample individuals. (Trole, p.207, 2002)

The scales of Minnesota's primary questionnaire tested the following characteristics:

1) Anti-social; 2) Paranoia; 3) Depression; 4) mania

5) Hypochondria; 6) Neurasthenia; 7) Hysteria; 8) Schizophrenia; 9) L scale; 10) F scale 11) K scale.

Mac kin Canon designed the 71-question short form in 1948. In 1353 H.Sh. Okhovvat, Barahani, Shamlu, and Now'parast translated it into Persian. The form was used for a group of 30 addicts in Vanak Hospitalin in 1353 H.Sh and its reliability was confirmed for Iranian sample population. The 71-question short form includes three scales of reliability: L, F and K.

Data analysis:

In order to analyze the data, descriptive and inferential methods were used. In descriptive statistic, according to sorts and specifications of the data, absolute and relative frequency distribution tables and one-dimensional and two-dimensional percentage tables were used. Inferential statistics included X² and Fisher test; and measurements were analyzed using SPSS software.

Results:

Question 1:

The analysis of the addicts' demographical data showed that from 256 cases:

- 1) 49 cases were unemployed, 18 cases were workers, 10 cases were employed, 169 cases were selfemployed, and 10 cases were college students.
- **2)** 98 cases lived in rented houses and 157 cases had their own houses.
- 3) 6 cases were illiterate, 38 cases had finished elementary, 81cases were juniors, 101 cases had finished high school, and 30 cases had higher education.
- **4)** 155 cases were single, 82 cases were married, four cases were divorced, and 15 cases were separated.
- 5) 148 cases earned less than 200,000 tomans a month, 57 cases earned between 200,000 and 400,000, 25 cases earned between 400,000 and 600,000, and 26 cases earned over 600,000.
- 6) 89 cases were addicted to opium, 53 cases were addicted to heroin, 69 cases were addicted to crack, and 49 cases were addicted to other drugs.
- 7) 141 cases used inhalation method, 38 cases injected drugs, 54 cases ate drugs, and 23 cases used a combination of different methods, e.g. both injection and inhalation.

The following table shows the sample group is other demographical data (Table 1-1):

Table 1-1: frequency distribution and percentage of
the reasons of starting addiction

Proportion (percentage)	number	statistical factors reasons
(percentage)		
20.15	26	egotistical
50.39	129	companionship and peer
5.46	14	groups' pressure
30	59	following adults
35.55	91	curiosity
3.12	8	disturbed familial situation
17.96	46	education failure
10.15	26	pleasure seeking
34.37	88	drug availability
5.85	15	emotional problems
12.10	31	relief of physical pains
12.5	32	unemployment
2.73	7	love failure
10.93	28	income surplus
4.68	12	lack of entertainments
		to increase bravery

According to the above report on the cases, peer groups' pressure had inclined more than 50% of the cases to drug, and surplus of income was the reason in 2.73% of them (7 cases), respectively the

most and the least important reasons of tendency towards taking drugs.

tot	tal	home	maker	unem	ployed	empl	oyed	wor	ker	self-em	ployed	occupation
p.c	no	p.c	no	p.c.	no	p.c	no	p.c	no	p.c	no	parents
100%	217	0	0	9	20	26	56	14	31	52	110	father
100%	244	91	222	0	0	6	14	3	8	0	0	mother

Table 1-2: occupations of the parents of the sample addicts

The table shows that among all 256 cases, 217 cases mentioned their fathers' job and 244 mentioned their mothers'. Most o fathers are selfemployed and most of mothers are homemakers. Among fathers, unemployment rate is the lowest.

Table 1-3: health problem record of cases

		-
percent	number	statistical index illness
4.29	11	heart disease
3.51	9	digestive problems
0.78	2	blood sugar
1.95	5	pulmonary disease
3.51	9	renal failure
2.73	7	blood pressure
38.67	99	mental disorder
44.56	114	healthy
100	256	total

The above table shows high correlation between physical/ mental illnesses and drug abuse.

Table 1-4: frequency distribution and proportion of the cases' previous conviction record and addiction record among their family members

record uniong tion funnity memories											
distant	close	cases'	previous								
relations'	relations'	conviction	conviction								
addiction	addiction		statistical index								
157	137	83	number								
61.32	53.15	32.42	proportion								
			(percent)								

The above table indicates other dangerous factors leading to addiction, among which relatives' addiction (61.32%) is the most dangerous.

Furthermore, analyzing demographical data of the sample group and combining it with the results of subscales of MMPI Test made it obvious that:

- 1) Lying scale is connected with accommodation and education.
- 2) Correction scale is connected with accommodation, education, and marital status.
- 3) Unfavorable scale is connected with occupation, accommodation, education, and marital status.
- 4) Hypochondria scale is connected with occupation, accommodation, education, marital status, income, and consumption

method.

- 5) Depression scale is connected with occupation, accommodation, education, marital status, and consumption method.
- 6) Hysteria scale is connected with accommodation and the kind of taken drugs.
- 7) Antisocial scale is connected with accommodation, and the kind of taken drugs.
- 8) Paranoia scale is connected with occupation, accommodation, and education.
- 9) Psychological inadequacy (PI) is connected with accommodation, education, drug type, drug-taking method.
- 10) Schizophrenia scale is connected with occupation, education, being married, and drug kind.
- 11) Mafia scale has no connection with the demographical items.

Based on the results indicated on table 5-1, which has been obtained after administering Eicher's Provise Text, it's seems that:

Fisher's Precise Test, it's seems that:

- a) Hs is the most important subscale of MMPI which has been comprehensive in discriminating meaningfulness of the connection among collected demographical data, having meaningful connection with 6 items out of studied 7 ones.
- b) After Hs, there are D and Pt, which each has meaningful connection with 4 items, and then K, F, Pd, and Sc, which each has meaningful connection with 3 items, and finally, L, HY, and Pa, which each has meaningful connection with 2 items.
- c) Significantly, Ma has no connection with any of the items.

It seems that the results of this research are consistent with those of Dr. Jonaib Ahmadi (2003) on the addicts of Pirbanan center in Shiraz.

Questions 2 - 12:

In order to show the addicts' antisocial characteristics, paranoia, depression, mania, hypochondria, hysteria, psychological inadequacy, schizophrenia, lying, correction, and infrequency based on Minnesota Personality Inventory, their psychological profile has been drawn as following. Significantly, the profile of all the addicts follows this model, whether addicted to opium, or heroin, or crack, or multi-drugs.

As it is seen, the direction of the profile indicates a kind of addiction-personality disorder that has the following specifications:

1- F is higher than L and K.

- 2- D is higher and Ma is lower.
- 3- Hs and HY are lower than D.
- 4- PT and PD are higher than PA.
- 5- In general, there is a kind of acclivity and declivity from one factor to another, which confirms a kind of addiction-personality disorder.

incaring runces of the results of the risher's freese rest										
drug-taking method	drug kind	income	being married	education	accommodation	job	data demography of scales			
				+	+		L			
+				+	+		F			
			+	+	+	+	K			
+		+	+	+	+	+	HS			
+			+	+	+	+	D			
	+				+		HY			
+				+	+	+	Pd			
				+	+	+	Ра			
+	+			+	+		Pt			
			+	+		+	Sc			
							Ma			

Table 1-5: two-dimensional table of MMPI subscales and demographical data of the sample addicts based on
meaningfulness of the results of the Fisher's Precise Test

to	tal	much r	isky	risky		risky little r		scale of risk-taking
100	256	0.39	1	60.54	155	39.06	100	lying
100	256	21.09	54	69.14	177	9.76	25	correction
100	256	2.73	7	17.96	46	79.29	203	infrequency
100	256	22.26	57	62.89	161	14.84	38	hypochondria
100	256	57.42	147	39.84	102	2.73	7	depression
100	256	12.5	32	47.26	121	40.23	103	hysteria
100	256	33.98	87	60.56	155	5.46	14	anti-social
100	256	12.5	32	68.75	176	18.75	48	paranoia
100	256	26.17	67	70.31	180	3.51	9	psychological inadequacy
100	256	28.12	72	61.32	157	10.54	27	schizophrenia
100	256	7.81	20	73.04	187	19.14	49	mania

Table 1-6: performance of the cases based on risk-taking limits

Explanation:

- 1 Considering the fact that single scores lack interpretative value, the above table was included in profile, based on standard measurement, in order to highlight the scores at the points of 30%, 50%, and 70% like standard profile.
- 2 On mania scale, 7.81% of the cases have performed on the abnormal level, avoiding the society's norms and laying in frontiers of personality disorder.
- 3 On schizophrenia scale, 28.12% of the cases have performed on the abnormal level, avoiding the society's norms and laying in frontiers of personality disorder.

- 4 On psychological inadequacy, 26.17% of the cases have performed on the abnormal level, avoiding the society's norms and laying in frontiers of personality disorder.
- 5 On paranoia scale, 12.5% of the cases have performed on the abnormal level, avoiding the society's norms and laying in frontiers of personality disorder.
- 6 On antisocial scale, 33.98% of the cases have performed on the abnormal level, avoiding the society's norms and laying in frontiers of personality disorder.
- 7 On hysteria scale, 12.5% of the cases have performed on the abnormal level, avoiding the society's norms and laying in frontiers of

personality disorder.

- 8 On depression scale, 57.42% of the cases have performed on the abnormal level, avoiding the society's norms and laying in frontiers of personality disorder.
- 9 On hypochondria scale, 33.26% of the cases have performed on the abnormal level, avoiding the society's norms and laying in frontiers of personality disorder.
- 10 On infrequency scale, 2.73% of the cases have high scores that express idealistic and extravagant description of their jobs.
- 11 On correction scale, 21.09% of the cases have high scores that express a kind of self-defense.
- 12 On lying scale, only 0.39% of the cases have high scores that express their effort to give a positive and unreal description of themselves.

It is emphasized again that none of the mentioned scales has interpretative value by itself unless they are interpreted in combination and based on psychological profile or the drawn one with acclivities and declivities on it. In this regard:

- 1 The scale of D has allocated the highest degree to itself in psychological profile of the cases. This result is in accordance with the results of other researchers, i.e. high scores on D scale in most mental patients, including addicts, are observed. This shows a sense of inferiority and the need to satisfy desires immediately. Most of the people who get high scores on this scale are aloof, unsociable, and shy and do not show the necessary flexibility in social relations.
- 2 The cases performance on a combination of Sc, D, and Pd scales indicates the accordance of obtained data with Greeve's studies. In addition to the mentioned interpretation, such a combination shows clinical description of individuals who tend to be self-irritating, and revolt against parental and social discipline, regarding themselves as victims of their families. Unable to/avoiding internalizing its values and norms, they feel that they are separate from the others and don't belong to the society they live in.
- 3 In Pitle's studies, too, in accordance with the results of this research, high scores have been obtained.
- 4 When normalizing MMPI test on addicts, the research done by Okhovvat in Iran, also showed that the addicts' scores on Sc, Pd, and D scales, anxiety graph, tendency to

depression, feeling lonely, poor emotional relations, disgust and feeling inefficiency. Such a performance is higher than normal community is and lies at a critical point. These results have been shown I this research, as well.

- 5 It's noticeable that low scores of the cases on PA, HY, and MA scales are in accordance with primary normalizing MMPI test on addicts, done by Okhovvat and assistances. Their interpretation evidently shows lack of psychological defense when responding. In other words, addicts answer less defensively than ordinary people do. This is probably because of the fact that addicts, when taking tests, have a definite and known status as an addicted person and in fact they admit their problems; so they are less defensive when talking about their inefficiencies. weak points, and abnormalities.
- 6 Persker is one of the researches who tried to place addicts in psychiatric defined categories. At the end of his studies, he concludes that 88.1% of the cases are sociopanic, 6.8% are neurotic and 5.6% are psycho-panic.
- 7 Hakimian adnd Rashan studied on 112 heroin addicts who were confined to bed Belvir Hospital also confirmed the existence of speculative signs of psycho-panic in them.
- 8 Okhovvat, Barahani, Tariqati, Gregorian, and Vahhabzadeh used MMPI test to study on 103 addicts. Confirming diagnostic value of the test, they reported that the studied addicts belonged to 20-40 age group, among which 61% were addicted to heroin, 20% were addicted to opium, and the remainder to other addictives. In that study, too, the sample addicts showed psych-panic and psycho-neurotic features. Their scores on scales of anxiety, tendency to depression and loneliness were the biggest numbers, similar to what we find in western societies. Their studies showed that Iranian addicted men have a lot of anxiety, feel strongly unsafe and inefficient, and care deeply about their physical changes. Early depression, deep emotional instability, hopelessness, loneliness, and feeling an obstacle between them and other people are some of their important results.
- 9 As the obtained data in this research shows, co-morbidity is one of the serious problems of the sample addicts. This fact has been

proved through a number of researches. For instance, according to clinical observations in most cases there is a relation among taking drugs and some abnormalities, psychological disorders, and emotional, behavioral, and moral problems, such as behavioral, anti-social, and tow-polar disorders. depression, anxiety, and stress disorder (PTSD). Posttraumatic (Bovine, 1992; Weinstein, 1993; Bruner, 1996; Kidrowkev, 1996; Kohn 1991; Kohn, 1991; Kesller, 1996; Nelson, 1996; Glosney and Kumis, 1992; Soundson 1998, and Clark and Handrose, 1997)

10 Furthermore, Kidrov (1996) and Nelson (1996) reported that existence of a disorder in addicts, such as depression, will be a practical diagnostic criterion for other kinds of disorder. Therefore, the prevalence of this co-morbidity has several other implications. In addition to addiction, addicts face accompanying illnesses and need more concise and longer clinical and medical care, which, in turn, makes their clinical developments critical and treatment period longer. (Schmitt and Biglu, 1996).

In serious works on drug abuse and psychological disorders (Tantle, Glants, and Meyers, 2002) three models are presented for correlation between addiction and accompanying disorders:

- a) Psychological disorders resulting in drug abuse
- b) Drug abuse resulting in psychological disorders
- c) Risky factors resulting in both drug abuse and psychological disorders

Recently Glants, Inburg, and Hinser (2002) have talked about a fourth model, combining the above three models and suggesting an interpretation to each cases of accompanying illnesses.

- 11 Valance Dandle (1919) has done a research on effects of depression syndrome, drugdistribution networks, and group activities on joint injection of drugs among streetwanderers. The results show that depressed individuals are willing to take drugs and by residing in broad drug-distributing networks, show much more tendency towards joint injections. This hypothesis says that it is possible that the effect of depression on joint injection is practiced through drugdistribution networks.
- 12 A great number research, including Gudman and Kapidman (2000) Alabama Birmingham researchers, Jhanett Aderian and assistants (2002) has proved the relation between

depression and drug abuse, which has shown in this research.

13 Some of Iranian researchers including Khoshnevis (1974), Heidarian (1997), and Barmas (2003) have also reached the same conclusion.

Conclusion and application of the results

- 1 1- According to the researches done, including the result of this research, MMPI questionnaire is a proper criterion to diagnose psychological and personality disorders and is reliable and of high importance to be given to addicts.
- 2 Based on obtained results and after checking other countries' reports on this issue in different years, we can say that form of addicts' personality follows approximately the same procedure in different nations through many years and resulted psychological profile of the addicts indicates that some of disorders can be regarded as risky factors of addiction. Even after diagnosing emotional disorders, therapists should examine cases for drug abuse.
- 3 According to the results of this research and other available records, whenever in a specialist clinic, the scores of a case on Sc, Pd, and D scales are high and on K and L scales are low, it is necessary for clinical specialists to examine him/her for addiction as a co-morbid disease.
- 4 According to the table 2, in chapter 4, about the reasons of the sample addicts' tendencies towards drugs, and their demographical information, an individual with the following features is very likely addicted: Self-employed (whose parents are also selfemployed), having his/her own house, having finished at least elementary or at most high school, single, earning 4000000 Rialls a month, with record of chronic and serious physical and psychological illnesses (esp. anxiety and depression), having addicted close/distant relatives, having conviction record, with easy access to drugs, under high influence of peer groups with distinguished (and usually defective) curiosity, aid without basic living skills.

5 If the combination of the above demographical data, along with obtained data from MMPI test, esp. with high scores on Pt.D, Pd, Pd, Sc scales, psychological psychiatric, and clinical services related to drug abuse must be taken into account and geu available.

Recommendation

- 1 Since addiction has followed approximately constant tendency during recent years, it is recommended in future researches instead of repetitive discussion about the reasons of taking drugs, risky and protective of drug abuse are investigated.
- 2 Since most of previous researches have focused on social/group factors, future researches should focus on inter-person addiction factors.
- 3 Regarding demography and specialist tests and questionnaire, clinical picture of addiction should be defined on different levels of hygiene, treatment, and referring.
- 4 This research should be applied as new questionnaire format along with clinical interviews so that specialists can diagnose more accurately.
- 5 Analysis of factors of drug abuse is necessary and must be done through modeling popular personality models.

References

- 1-Miller; Norman (2002) Addiction Psychiatry Current diagnosis and treatment, I(I).
- 2- Eviedman; herman (2000) Drug and Abuse, New York.
- 3- Kaplan and Sadock (2003) Synapsis of psychiatry,, Ed 9th. New York.
- Keltner; Norman L.Schwecke; Lee Hilyard, Bostrom; Carol E. (2003) Psychiatric Nursing. Ed 4th, Mosby.
- 5- Gelder; Michael Graham. et al (1999) Oxford coretext (psychiatry).Ed 2nd.
- 6- Fontaine; Karen Lee (2003) Mental Health Nursing. Ed 4th.
- 7- Boyd; Mary Ann (2005) Psychiatne Nursing. Ed 3rd, lippincott Willuams and wulkins.
- 8- Halgin; Richard F., Whitbourne; Suankrauss (2003) Abnormal Psychologs, Ed 4th.
- 9- Garson; Verna Benner (2000) Mental Health Nursing, Ed 2nd.
- 10- Gipriano; Lois A, Psychoanalytic Perspective on substance abuse, Journal of social w,rk in health care, (2003) vol 215(3), 9-46.

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- 11- Gompton; Wilson M., et al (2002) the role of psychiatric disorders in Predicting drug dependence treatment come, the American J. ofpsydicting, Washington, vol 160(s), 890-6.
- 12- Pape; Hilda, Ingeborg; Rossow (2004) A longitudinal study of ecstasy and other drug Norwegian youth, Journal of drug issues, vol 34(2), 389-419.
- 13- Abadinsky; Howard,(2001) Drugs : an inrtoduction, Ed 4th.
- 14- shamlu, saeed, *clinical psychology*, Tehran, Roshd Publications, 2003.
- 15- Korddmieza, Ezzatollah, 2nd year, vol. 2, p 190.
- 16- Millanifar, Behrooz, Tehran, Toos Publications, 2000.
- 17- Mohammadi, Masud and Dehqanpur, Mohammad, Tehran, Ayeneh Ketab Publications, 2003.
- 18- Owrang, Jamileh, Tehran, Ershad Ministry Publications, 1998.
- 19- Sekhavat, Jafar, 2nd vol., Tehran, Khordad 2003.
- 20- Kamkar, Manuchehr and Qanbari, Abbas, pp. 54-57, 2002.
- 21- Nemati, Farshad, 2nd vol., pp. 279-296, 2002.
- 22- Hashemi, Ali, Tehran, Rasanesh, 2004.
- 23- Komeil, Bahram, 2nd year, vol. 5, pp. 31-46, 2003.
- 24- Hakim, Abdolhamid, PhD. theses, Mdical Faculty of Tehran University, 2002.
- 25- Zakariyaee, Mohammad Ali, Tehran, 2002.
- 26- Mortazavy Qahi, Ali, Tehran, Ayeneh Ketab Publications, 2002.
- 27- Nooranipur, Rahmatollah, 2nd year, vol. 6, pp. 13-55, 2004.
- 28- Asaadi, Hassan, 2nd vol., PP. 109-149, Khordad, 2001.
- 29- Mohammadi, Ataollah, 2nd vol., pp. 225-247, Tehran, 2001.
- 30- Hashemi, Ali, Tehran, Niayesh Publications, 2004.
- 31- Ettikson, Rita and assistants, 2nd vol., translated by Rafieei and assistants, Tehran, Arjmand Publications, 2001.