Abstract

Objective: Sustainable development is human-centered and has become one of the most important challenges of recent decades. The spread of addiction problem has also many consequences in various areas of development, especially health. The aim of this study was to provide a health-based model of sustainable development with an emphasis on the issue of addiction. **Method:** This research falls within the category of descriptive/Ex-Post Facto research design that was carried out via a mixed method. It was embarked on the construction of a health-based sustainable development model in the qualitative method using Fuzzy Delphi technique and interviewing 30 relevant experts in the field of addiction. The number of 201 questionnaires was distributed among experts at the Drug Control Headquarters of Tehran Province in a quantitative method via purposive sampling. **Results:** The Health-based Sustainable Development Model was designed in three social, environmental, and economic dimensions with 12 components and 86 indicators. In the quantitative method, all components of the model had a significant negative effect on addiction in such a way that addiction tendency decreased with any increase in or promotion of the components of the sustainable development model. **Conclusion:** Among dimensions of sustainable development model, social, economic and environmental dimensions showed the highest impact on addiction, respectively.

Keywords: sustainable development model, health, addiction, social, economic, and environmental dimensions

Health-based Sustainable Development Model with an Emphasis on Addiction

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Introduction

Sustainable development has a comprehensive, naturalistic, and humanistic approach and includes valuable concepts in the realm of health promotion, maintenance of ecological systems in the long run, and provision of human needs without destroying the next generation's abilities (Reza'ea, & Shabiri, 2014). Today, according to the third millennium Declaration of the United Nations and numerous summits throughout the world, sustainability is recognized as the essential part of world discipline and sustainable development is one of the principles to which thinkers and practitioners pay much attention (Danayi, 2015). This means that the maintenance of life standards of the future generation is very important (Ehnert, Harry, & Zink, 2014). On the one hand, health is the right of all human beings and, at present, the development of any community can be judged based on the health quality of that community. In every social, political, and geographical system, there are differences in the health status of various social groups; indeed, such differences are evident even in various geographical regions of a country (Pour-Ebrahim, 2014). In addition, health and sustainable development are closely linked together and are intertwined principles that overlap each other to such a large degree that people's health is the basis of peace and security (Dinmohammadi, Amini, & Yazdankahah, 2008). Being concerned with explaining comprehensive views on the two categories of development and health can integrate social, economic, and environmental considerations (Tabeshan, & Karimabadeh, 2016). Meanwhile, these considerations get linked to shared principles, including commitment to equality and social justice, sustainability, interpersonal actions, and public participation (Gostin, & Friedman, 2015).

It should be noted that one of the most important causes of the gap between sustainable development and general health is the issue of drug addiction. The use of narcotic drugs and other illegal substances by adolescents and young people is one of the most challenging problems that endangers general health and imposes many personal, social, health, and economic problems on the involved communities (Skiba, Monroe, & Wodarski, 2004). Addiction along with poverty and ignorance forms a vicious triangle that results in the elimination of happiness, vitality, and dynamism from the community, especially the young people. According to the reports released by United Nations Office on Drugs and Crime, approximately 230 million people in the world have consumed drugs in 2010, which is representative of a population of over 5% of people above 18 years old (World Drug Report, 2015). In Iran, the number of drug users is estimated to be 1.8 to 3.3 million people (Mokri, 2002). Currently, addiction treatment is the first line of defense in the war against diseases, such as AIDS and hepatitis, and is also considered as one of the most important public health threats around the world (Margulin, 2006). Since it is required to pay attention to the social arena in order to achieve sustainable development in a country and addiction is known as a social traumatic phenomenon; the assignment of

attention to this phenomenon will make it possible to achieve sustainable development. In fact, public health and sustainable development are two complementary components, while the phenomenon of addiction is on the opposite side of these two components and damages public health and the achievement of sustainable development. In other words, one of the other measures that can lead to sustain sustainable development is general health (Mohammadzadegan, Abbaszad, & Ghasembaklou, 2012). As health is recognized as an important principle in human rights and a social goal in the world, it is vital to meet basic needs and to improve the quality of human life (Botvin, & Kantor, 2004). Of course, according to the definition proposed by World Health Organization, health does not cover only the physical aspects of individuals but should entail social, welfare, political, cultural, and economic aspects as well (GarusiFarshi, & Sufiani, 2009). Various studies have been carried out on this subject, which are referred to below. Bizzarri, et al. (2005); Deniz (2016); and Pettigrew et al. (2015) believe that when the level of health decreases, performance in other areas of life are also endangered and this results in a lack of development (Fard et al., 2014). According to the World Drug Report (2010), the phenomenon of narcotic drugs and psychotropic substances has such a nature that it is considered tantamount to the top three global crises, namely nuclear, demographic, and environmental crises threatening humanity and modern society (Cuijpers, Jonkers, De Weerdt, & De Jong, 2010). In this regard, Sotoudehnia (2016); Dinmohammadi et al. (2008); Bizzarri et al. (2005); Deniz (2016); and Pettigrew et al. (2015) have examined the relationship between general health and sustainable development. In many other studies, the effects of addiction on general health have been studied (Taheri, & Cheraghpour, 2013; Richard, & Macil, 2003; World Drug Report, 2015; Hojjati, 2009; Goli Rostami et al. (2016); Maeyer, Vanderplasschen, & Broekaert (2010); Razavi Heidari, Talebzadeh Sani, Gholami, & Hosseinpoor (2016); and Veisi Hadi, & Mohammadinejad (2016).

Despite the findings reported by various researchers and scholars about the factors affecting addiction, the current authors unfortunately could find no pieces of research that have drawn attention to health-related sustainable development model with an emphasis on addiction. It seems that no comprehensive model has so far addressed the dimensions, components, and indicators of sustainable development based on general health to describe effective factors as well as strategies in coping with addiction. Accordingly, the current authors established the basis of this research on the presentation of a health-based sustainable development model with an emphasis on addiction because of the scientific and experimental gap existing in this field. In this regard, it is sought to identify the harms and damages imposed on general health and sustainable development by drug addiction, and it is then intended to provide solutions and mechanisms to address this gap.

Method

Population, Sample, and Sampling Method

This research is an exploratory-descriptive study (Ex-Post Facto design) that falls within developmental-applied research in terms of purpose; and it was conducted in two qualitative and quantitative (mixed-method) stages from 2014 to 2016. The statistical population of this research consisted of 30 senior managers, researchers, scholars, and experts from the Drug Control Headquarters of Tehran province in the qualitative section. All these individuals had a desired resume in the field of counter-narcotics. In the qualitative section, Fuzzy Delphi technique was used to interview the mentioned pioneers towards the construction of the health-based sustainable development model. In terms of quantitative sampling, stratified random sampling method was used to pick 201 experts (based on the Cochran formula) from among the population (i.e., 420 senior managers, researchers, scholars, and experts from the Drug Control Headquarters of Tehran province). Then, 10% was added to the sample by considering the non-response coefficient. In this study, two methods of library and field studies were used to collect data and information. In the library method, articles, related books, achieved documents, field notes, library sources, electronic databases of scientific and research centers of the country and the world, archives of documentation of drug control headquarters, analytical reports, documents of the secretariat of the drug control headquarters, and sources of the United Nations Office on Drugs and Crime were used for data collection. In the field method, a researcher-constructed questionnaire was used. This questionnaire had been developed and prepared after the conduct of interviews and a poll on the Board of Experts (senior managers, researchers, scholars, and experts from the Drug Control Headquarters). The data collection tool in the qualitative section was the Fuzzy Delphi technique, and it was a questionnaire in the quantitative section. For the specification of the components and indices of the health-based sustainable development model, a questionnaire containing an open-ended question and 12 components (classified in three social, environmental, and economic dimensions) was used. At the end of each questionnaire, an open-ended question was posed and the experts were asked state if, in addition to the said components, they come to another component effective in the modeling with an emphasis on the addiction issue. To investigate the role of components and model indices, an 86-item quantitative questionnaire was used.

Given the fact that panel members were representatives of a group or pioneers in the field of knowledge, formal validity and content validity were guaranteed. In this study, expert opinion in Newman Validation Method was used. Due to the fact that the results of each stage were returned to the experts and their views were re-received, the credibility and validity of the members was met. In addition, a confirmatory factor analysis was run to ensure the validity of the questionnaire (convergent validity). In order to investigate the reliability of the

research data in the quantitative section, Cronbach's alpha coefficient was employed and its values are presented in Table 1.

Table 1: Cronbach's Alpha Coefficient of the model Indices and Components

Dimensions	*Number of components*	*Cronbach's alpha of components*	*Number of indices*	*Cronbach's alpha of indices*
Sustainable social development	7	0.752	53	0.760
Sustainable environmental development	3	0.755	19	0.776
Sustainable economic development	2	0.870	14	0.881
Total	12	0.799	86	0.805

The components and indices of the research model were extracted after the 6 phases of the Delphi technique. Since the researcher in this study sought to design and formulate a model that describes and accounts for empirical data based on several relatively small parameters; structural equation modelling, path analysis, confirmatory factor analysis, and regression analysis were used to test the relationships among the research variables and to test the model. Also, Lisrel software was used to run confirmatory factor analysis where the results verified the validity of the 86-item questionnaires extracted by experts in the qualitative section. Then, T-test was run to determine the role of indices and components of health-based sustainable development model with an emphasis on addiction.

Results

The results of this study were presented in two qualitative and quantitative sections. The qualitative section was performed in 6 phases using the Fuzzy Delphi technique, which included the conduct of poll on 30 experts about the design of components of the health-based sustainable development model with emphasis on addiction (in three stages) and the effectiveness of the indices of the health-based sustainable development model with emphasis on addiction (in three stages). Hence, at each stage of the survey, some questionnaires were distributed in order to beware of the experts' opinion on the causes of the tendency to use narcotics from the three dimensions (individual, social, and environmental) in the construction of the health-based sustainable development model. At this stage, 101 indices were extracted based on the literature review and research background. In the second and third stages of the poll, the posed questions were responded to once more. Finally, according to the views presented in the second stage and their comparison with the results of the third stage, the poll was stopped since the difference between the two stages was smaller than the threshold, i.e. very low (0-1). At the end, after three stages of the poll implementation, expert opinion was extracted (30 experts) and the model proposed by them consisted of 86 indices in 12 components (empowerment,

education and development, social harm control, health and social welfare, social justice, spirituality, population control, renovation of exhausted urban contexts, promotion of health and quality of life, management of environmental pollution, job opportunities, and citizens' satisfaction); and three dimensions (social, environmental, and economic). The proposed model described the social, environmental, and economic dimensions that were required to achieve the health-based sustainable development and it showed that it is possible to empower the society in social, political, and economic spheres within the six empowerment indices in the sustainable development model. Also, the definitive mean value obtained for the extracted indices of health-based sustainable development model in the first stage of the poll (expert opinion about the causes of drug use tendency from three individual, social, and environmental dimensions) indicates the intensity of the experts' consent on each of the indices of the model with an emphasis on addiction. According to other results of all indices, 90 indices earned the highest level of approval by experts with an average of over 70%, and 10 ones with an average of less than 70% were excluded from the survey process.

Table 2: Difference in Expert Opinion in the Second and Third Poll Stages of Index Extraction

	Indices	*Average of stage 2*	*Average of stage 3*	*Average difference between stages 2 and 3*
1	Suicide rate	0.83	0.82	0.01
2	Rate of child abuse	0.78	0.79	0.01
3	Illegal relationships	0.8	0.82	0.02
4	Divorce rate	0.82	0.85	0.03
5	Drug and alcohol abuse	0.83	0.83	0
6	Poverty	0.73	0.76	0.03
7	Imprisonment	0.83	0.85	0.02
8	Gap between poor and rich groups in society	0.82	0.85	0.03
9	The level of crime in society	0.8	0.82	0.02
10	The amount of stress in society	0.76	0.78	0.02
11	Unemployment	0.72	0.78	0.06
12	Easy access to alcohol and drugs	0.78	0.82	0.04
13	Equal access to recreational and leisure facilities and places	0.76	0.83	0.07
14	Access to easy and safe transportation	0.74	0.81	0.07
15	Provision of high quality health care for all (comprehensive insurance coverage)	0.82	0.74	0.08
16	Provision of social welfare in old age	0.82	0.85	0.03
17	Provision of an acceptable level of life (basic life needs: proper food, clothing, and housing)	0.82	0.82	0
18	Improvement of people's psychological, physical, and mental health	0.82	0.83	0.01
19	Fighting against the outbreak of contagious diseases	0.83	0.78	0.05
20	Promotion of social participation (financial, physical, and decision-making participation) and resolution of city and neighborhood problems	0.78	0.71	0.07

Table 2: Difference in Expert Opinion in the Second and Third Poll Stages of Index Extraction

	Indices	*Average of stage 2*	*Average of stage 3*	*Average difference between stages 2 and 3*
21	Promotion of cooperation and teamwork spirit	0.79	0.85	0.06
22	Education and development of social, life, and communication skills	0.83	0.87	0.04
23	Adequate training to get involved in the job market	0.83	0.83	0
24	Increased resilience against tensions	0.78	0.83	0.05
25	Rehabilitation of criminals	0.79	0.83	0.04
26	Strengthen the faith	0.73	0.74	0.01
27	Morality	0.83	0.79	0.04
28	Tolerance against problems	0.78	0.77	0.01
29	Lack of feeling emptiness and futility by increasing life expectancy	0.83	0.83	0
30	Adherence to married life	0.76	0.83	0.07
31	No racism, ethnic discrimination, and religious discrimination	0.83	0.80	0.03
32	Equitable distribution of wealth and capital among people	0.76	0.77	0.01
33	Care for vulnerable groups, the needy, and deprived people	0.72	0.77	0.05
34	People's happiness with membership in that community	0.74	0.81	0.07
35	Attachment to legal rules	0.8	0.78	0.02
36	Revision of rules based on community needs	0.8	0.76	0.04
37	Guarantee the implementation of rules by observing equality for all	0.83	0.84	0.01
38	Respect for each other's interests	0.72	0.79	0.07
39	Health of suggestions system	0.76	0.77	0.01
40	Observance of citizens' rights	0.83	0.87	0.04
41	Inclusive and lifelong learning	0.86	0.85	0.01
42	The ability to self-educate and develop creativity and innovation in people	0.76	0.79	0.03
43	Having academic skills	0.83	0.83	0
44	Decrease in school drop-out rates or no registration at school	0.78	0.84	0.06
45	Continuous knowledge and information development	0.86	0.83	0.03
46	Presence of health and prevention training programs and workshops	۰/۷۳	۰/۷۹	0.06
47	Promotion of people's culture and awareness	0.83	0.86	0.03
48	Single-parent births	0.8	0.84	0.04
49	Low birth weight, with delay or without prenatal care	0.76	0.78	0.02
50	Uncontrolled population growth	0.76	0.84	0.08
51	Population density	0.81	0.81	0
52	Infant mortality rate	0.76	0.79	0.03
53	Migration from village to city and changing the environment of life	0.72	0.8	0.08

Table 2: Difference in Expert Opinion in the Second and Third Poll Stages of Index Extraction

	Indices	*Average of stage 2*	*Average of stage 3*	*Average difference between stages 2 and 3*
54	Healthy weather	0.83	0.85	0.02
55	The quality of housing	0.76	0.74	0.02
56	Clean and safe environment	0.86	0.84	0.02
57	Responsive consumption of resources and energy	0.82	0.85	0.03
58	Satisfaction with the city and neighborhood environment and its cleanliness	0.76	0.82	0.06
59	Management of wastewater and trash disposal	0.81	0.78	0.03
60	Management of soil pollution	0.76	0.77	0.01
61	Fixing food shortages (food security)	0.82	0.75	0.07
62	Healthy food	0.8	0.85	0.05
63	Housing, nutrition, and adequate clothing	0.76	0.83	0.07
64	Cleanliness and safety of life and work environment	0.86	0.84	0.02
65	Availability of sufficient lighting in the living space	0.76	0.71	0.05
66	Existence of appropriate communication roads	0.76	0.86	0.01
67	Satisfaction with surface water disposal	0.73	0.73	0
68	Identification of unsafe locations	0.81	0.85	0.04
69	Management of marginalization in society	0.86	0.87	0.01
70	Attention to urban engineering	0.72	0.76	0.04
71	Development of urban green spaces	0.83	0.77	0.06
72	Management of homelessness	0.79	0.83	0.04
73	Job satisfaction	0.76	0.83	0.07
74	Job security	0.86	0.83	0.03
75	Supportive work environment for the individual and family	0.73	0.75	0.02
76	Business development	0.72	0.78	0.06
77	Granting of bank loans and facilities	0.8	0.77	0.03
78	Investing for creation of new businesses	0.83	0.87	0.04
79	Average monthly household income - average monthly household expenses	0.81	0.85	0.04
80	Food consumption by households	0.76	0.79	0.03
81	Affordability of housing purchase or construction	0.81	0.83	0.02
82	Establishment of a fair distribution and income structure and pattern	0.83	0.85	0.02
83	Income security at the family level	0.79	0.83	0.04
84	Purchasing power	0.76	0.79	0.03
85	Access to affordable housing	0.86	0.87	0.01
86	Transparency of economic accountability in government	0.73	0.80	0.07

As it has been shown Table 2, the level of difference in experts' opinions between the second and third stages is less than the very low threshold. So the poll was stopped at this stage. The indices of health-based sustainable

development model with an emphasis on the role of addiction were extracted after three stages based on social, environmental, and economic factors of the above table.

Table 3: Prioritization of Components of the Health-based Sustainable Development Model

Dimensions	*Components*	*Rank mean*	*Rank*
Social	Empowerment	17.27	First
	Training and development	16.29	Second
	Control of social harm	15.75	Third
	Health and social welfare	14.35	Fourth
	Social justice	13.54	Fifth
	Spirituality	13.20	Sixth
	Population control	13.02	Seventh
Environmental	Renovation of exhausted urban contexts	15.25	First
	Promotion of health and quality of life	14.85	Second
	Management of environmental pollution	14.33	Third
Economic	Job opportunities	14.60	First
	Citizens' satisfaction	14.23	Second

According to Table 3, Friedman's test results regarding the prioritization of components of health-based sustainable development model showed that components and indices of health-based sustainable development model are not of the same importance. For example, empowerment, education and development, and control of social damage in social dimension, ere more important than other components, including health and social welfare, social justice, spirituality, and population control. In environmental dimension; renovation of exhausted urban contexts, promotion of health and quality of life, and management of environmental pollution were found to be of importance, respectively. In the economic dimension, employment and job opportunities had priority to family satisfaction.

To evaluate the effects of the indices of health-based sustainable development model with an emphasis on addiction, the results of t-test showed that, in the social dimension (control of social harm), suicide rate ($t = -12.40$, $P<0.0001$), child abuse ($t = -10.12$, $P<0.0001$), illegal relationships ($t = -14.72$, $P<0.0001$), divorce rate ($t = -10.57$, $P<0.0001$), substance and alcohol abuse ($t = -9.24$, $P<0.0001$), poverty $t = -16.87$, $P<0.0001$), imprisonment ($t = -14.25$, $P<0.0001$), the gap between poor and rich groups in society ($t = -14.58$, $P<0.0001$), level of crime in society ($t = -11.49$, $P<0.0001$), amount of stress in society ($t = -9.57$, $P<0.0001$), unemployment ($t = -16.27$, $P<0.0001$), and easy access to alcohol and drugs ($t = -10.79$, $P<0.0001$) had a negative effect. Moreover, in the social dimension (the component of social welfare); equal access to recreational and leisure facilities and places ($t = -14.25$, $P<0.001$), provision of high quality health care for all (comprehensive insurance coverage)

(t = -8.24, P<0.001), provision of social welfare in old age (t = -6.58, P<0.01), provision of an acceptable level of life (basic life needs: proper food, clothing, and housing) (t = -14.57, P<0.001), improvement of people's psychological, physical, and mental health (t = -15.35, P<0.001), and fighting against the outbreak of contagious diseases (t = -16.58, P<0.001) had a negative effect, and the index of access to easy and safe transportation (t = -1.25, P>0.05) had no effect. In the social dimension (the component of empowerment); promotion of social participation (financial, physical, and decision-making participation) and resolution of city and neighborhood problems (t = -12.48, P<0.001), promotion of cooperation and teamwork spirit (t = -11.84, P<0.001), education and development of social, life, and communication skills (t = -14.84, P<0.001), adequate training to get involved in the job market (t = -12.53, P<0.001), increased resilience against tensions (t = -9.02, P<0.001), and rehabilitation of criminals (t = -8.57, P<0.001) had a negative effect. In the social dimension (spirituality component); strengthening the faith (t = -13.64, P<0.001), morality (t = -12.45, P<0.001), tolerance against problems (t = -12.87, P<0.001), and lack of feeling emptiness and futility by increasing life expectancy (t = -14.67, P<0.001) had a negative effect. In the social dimension (social justice component); adherence to married life (t = -15.24, P<0.001), no racism, ethnic discrimination, and religious discrimination (t = -9.68, P<0.001), equitable distribution of wealth and capital among people (t = -15.84, P<0.001), care for vulnerable groups, the needy, and deprived people (t = -12.57, P<0.001), people's happiness with membership in that community (t = -9.74, P<0.001), attachment to legal rules (t = -8.19, P<0.001), revision of rules based on community needs (t = -3.57, P<0.001), guarantee the implementation of rules by observing equality for all (t = -12.46, P<0.001), and respect for each other's interests (t = -4.67, P<0.001) had a negative effect. In social dimension (education and development component); health of suggestions system (t = -4.27, P<0.001), observance of citizens' rights (t = -10.34, P<0.001), inclusive and lifelong learning (t = -15.65, P<0.001), the ability to self-educate and develop creativity and innovation in people (t = -12.19, P<0.001), having academic skills (t = -11.84, P<0.001), decrease in school drop-out rates or no registration at school (t = -8.65, P<0.001), continuous knowledge and information development (t = -12.29, P<0.001), presence of health and prevention training programs and workshops (t = -14.18, P<0.001), and promotion of people's culture and awareness (t = -13.84, P<0.001) had a negative effect. In the social dimension (population control component); single-parent births (t = -11.28, P<0.001), low birth weight, with delay or without prenatal care (t = -9.35, P<0.001), uncontrolled population growth (t = -8.24, P<0.001), population density (t = -8.15, P<0.001), infant mortality rate (t = -8.57, P<0.001), and migration from village to city and changing (t = -7.24, P<0.001) had a negative impact. In the environmental dimension (management of environmental pollution component); healthy weather (t = -7.04, P<0.001), the

quality of housing (t = -7.87, P<0.001), clean and safe environment (t = -7.04, P<0.001), responsive consumption of resources and energy (t = -6.57, P<0.001), and satisfaction with the city and neighborhood environment and its cleanliness (t = -8.57, P<0.001) had a negative impact. The index of responsive use of resources and energy (t = -1.14, P>0.05) had no effect. In the environmental dimension (promotion of health and quality of environment); management of wastewater and trash disposal (t = -6.57, P<0.001), management of soil pollution, fixing food shortages (food security) (t = -7.27, P<0.001), healthy food (t = -8.67, P<0.001), housing, nutrition, and adequate clothing (t = -9.37, P<0.001), and cleanliness and safety of life and work environment (t = -8.19, P<0.001) had a negative effect. In the environmental dimension (component of renovation of exhausted urban contexts); availability of sufficient lighting in the living space (t = -6.27, P<0.001), existence of appropriate communication roads (t = -4.27, P<0.01), identification of unsafe locations (t = -10.27, P<0.001), management of marginalization in society (t = -12.37, P<0.001), attention to urban engineering (t = -9.57, P<0.001), development of urban green spaces (t = -5.27, P<0.001), and management of homelessness (t = -8.68, P<0.001) had a negative effect, while satisfaction with surface water disposal (t = -1.13, P>0.05) had no impact. In economic dimension (components of job opportunities); job satisfaction (t = -12.01, P<0.001), job security (t = -11.78, P<0.001), supportive work environment for the individual and family (t = -10.24, P<0.001), business development (t = -11.27, P<0.001), granting of bank loans and facilities (t = -7.97, P<0.001), and investment for creation of new businesses (t = -13.17, P<0.001) had a negative effect. In the economic dimension (citizens' satisfaction component); average monthly household income - average monthly household expenses (t = -11.67, P<0.001), food consumption by households (t = -9.75, P<0.001), affordability of housing purchase or construction (t = -8.62, P<0.001), establishment of a fair distribution and income structure and pattern (t = -10.27, P<0.001), income security at the family level (t = -11.18, P<0.001), purchasing power (t = -10.68, P<0.001), access to affordable housing (t = -9.57, P<0.001), and transparency of economic accountability in government (t = -9.18, P<0.001) had a negative effect.

Overall, the results of t-test showed that, in the social dimension; components of social harm control (t = -14.25, P<0.001), family social welfare (t = -13.64, P<0.001), family empowerment (t = -16.40, P<0.001), spirituality (t = -10.57, P<0.001), social justice (t = -11.28, P<0.001), family education and development (t = -15.65, P<0.001), and family population control (t = -8.27, P<0.001) had a negative effect. In the environmental dimension; the components of management of environmental pollution (t = -7.04, P<0.001), promotion of health and quality of life (t = -7.24, P<0.001), and renovation of urban exhausted contexts (t = -8.27, P<0.001) had a negative effect. In the economic dimension, the components of family job opportunities (t = -12.01, P<0.001) and family members' satisfaction (t = -11.67, P<0.001) had a negative effect.

Discussion and Conclusion

It can be argued that although different models and patterns of sustainable development have already been presented, none of them alone could meet the needs and desires of the health domain. The current research model was designed using different experts' opinion and could present all the required dimensions (social, environmental, and economic) for the realization of a health-based sustainable development in the form of a comprehensive model. In this model, 86 indices were designed in 12 components, namely empowerment, education and development, social harm control, health and social welfare, social justice, spirituality, population control, renovation of exhausted urban contexts, promotion of health and quality of life, management of environmental pollution, job opportunities, and citizens' satisfaction. In this model, using the six indices of empowerment in the health-based sustainable development model, it is possible to empower the society in the social, political, and economic spheres, which are referred to below:

a) Components of social dimension: The findings showed that it is possible to determine the health and welfare of a community by using seven indices of social health and welfare (equal access to recreational and leisure facilities and places, access to easy and safe transportation, provision of high quality health care for all (comprehensive insurance coverage), provision of social welfare in old age, provision of an acceptable level of life (basic life needs: proper food, clothing, and housing), improvement of people's psychological, physical, and mental health, and fighting against the outbreak of contagious diseases). Social welfare constitutes the most important part of the concepts of sustainable development and it enables the provision of current human needs without destroying the ability of future generations to achieve their dreams and needs Prüss-Ustün, Wolf, Corvalán, Bos, & Neira, 2016). Today, empowerment is the key to sustainable development. Community empowerment and preventive measures are among the effective factors in reducing social harm, especially addiction (Todaro, & Smith, 2010). In addition, it is possible to empower the society in social, political, and economic spheres by using the six indices of "empowerment" in the health-based sustainable development model (promotion of social participation (financial, physical, and decision-making participation) and resolution of city and neighborhood problems; promotion of cooperation and teamwork spirit; education and development of social, life, and communication skills; adequate training to get involved in the job market; increased resilience against tensions; and rehabilitation of criminals). On the one hand, it should be noted that sustainable development is something that must be realized in the field of "spirituality and ethics" because the weakness in spirituality and a lack of attachment to the spiritual, moral, religious, ethical, and family values provide the grounds for individual's tendency to addiction (Saghafi Ameri, 2010). A person with strong faith and adherence to morality will enjoy such capabilities as tolerance to problems, high life expectancy, and adherence to his/her life, all

of which can be found in the five indices of "spirituality" in the health-base sustainable development model. On the other hand, the purpose of all populations and territories is to achieve "social justice and development". Inequity and unequal distribution of social achievements deepen the gap among different strata, weaken national determination, reduce the spirit of hard work and efforts, and add to the psychological damage of the society members, while sustainable development involves the reduction of class distance, strengthening of national resolve, and enjoyment of healthy and hopeful embers in families. Therefore, the observance of justice is the mystery behind the survival and sustainability of the development process. Thus, a sustainable development model based on general health, including 10 indices of social justice (no racism, ethnic discrimination, and religious discrimination; equitable distribution of wealth and capital among people; care for vulnerable groups, the needy, and deprived people; people's happiness with membership in that community; attachment to legal rules; revision of rules based on community needs; guarantee the implementation of rules by observing equality for all; respect for each other's interests; health of suggestions system; and observance of citizens' rights) covers all matters of social justice in a community. According to studies conducted by Solhi, & Abolfathi (2011), the educational system is one of the key pillars or, say, the backbone of governments for the realization of sustainable development. Therefore, promoting the status of education in social systems will also be considered as a requirement and will help countries move towards sustainable development. In this regard, the utilization of educational indices can greatly contribute to the process of education and development and the realization of sustainable development. Population and sustainable development have a significant relationship with each other because population growth causes a huge portion of resources to be spent on consumer expenses, while these budgets should have been spent on investment, job creation, production and economic prosperity, and, ultimately, development (Eta'at, 2011). Accordingly, population control indices can be regarded as a desired way to control population and achieve sustainable development.

b) Components of the environmental dimension: Achieving sustainable development without regard to environmental issues is impossible. Moving towards sustainable development requires the resolution of environmental problems (United Nations Report, 2015). Attention to the indices of environmental pollution management (clean weather, clean environment, management of wastewater and trash disposal, etc.) can contribute to environmental health and achievement of environmental sustainable development. Undoubtedly, health promotion and development are inextricably linked with each other. In this regard, it is feasible to realize "the promotion of health and quality of life" with attention to and planning on the four indices of health promotion and quality of life (such as fixing food shortages (food security), healthy food, and cleanliness and safety of life and work environment)

(Burns-Edel, 2016). The health-based sustainable development model targets the eight indices of renovation of exhausted urban contexts (sufficient lighting in the living space, attention to urban engineering, development of urban green spaces, etc.) and, thereby, provides the grounds for "the rehabilitation and renovation of exhausted urban contexts".

c) Components of economic dimension: In addition to the above-mentioned points, it is of vital importance for people to have "job opportunities and job security" in their social and citizenship life. In this domain, the indices of job opportunities in the sustainable development model (job satisfaction, job security, bank loans and facilities, etc.) cover all dimensions of a suitable job opportunity in the community in order to create new businesses,. In case of implementing these elements, satisfaction with job opportunities and sustainable development will be achieved (Derakhshannia, Rafi'ea, Khankeh, Eghlima, & Rahgozar, 2013). Family members' satisfaction has been associated with urban sustainable development. Citizens' satisfaction with their rights, the city environment, and services offered to them is an important factor in motivating people to participate in urban development and improving the quality of their living place (Pettigrew et al., 2015). On the other hand, in this research, eight family members' satisfaction indices (including average monthly household expenses, food consumption by households, affordability of housing purchase or construction, etc.) were proposed. If these indices are met, citizens' satisfaction in the economic field will be provided. In the same way, according to studies carried out by Mathew, & Jenner (2011); Rolles, Murkin, Powell, Kushlick, & Slater (2012), most social injuries (especially the addiction disorder) are rooted in poverty and unemployment. Therefore, the achievement of sustainable development as the main axis of coping with social trauma should be assigned special attention so that we can consequently witness a reduction in the crime rate and delinquency and, naturally, a rise in the social security factor (Dehghani, 2016).

It can be concluded that this model can play a leading role in the elimination or reduction of social harms and in the conduct of research on achieving sustainable development by controlling the 12 indices of social harm in the health-based sustainable development model (Prüss et al., 2016). Additionally, many experts believe that achieving sustainable development depends on the development of three economic, social, and environmental dimensions. Although these dimensions naturally interact with each other and affect individuals' performance, it is imperative to go for integrated decision-making and manage how each of these dimensions is implemented to bring the highest efficiency and quality. It can be argued that improving the quality of service provision and supervision and quality management in all sectors of life will lead to the increased quality of life, increased general welfare, promotion of the general health of families, and, consequently, the development of the community and the achievement of the goals of sustainable development. In addition, drug

addiction is one of the most important social, economic, and health problems whose complications are considered to be a serious threat to human society and cause social stagnation in various fields. Moreover, the devastation resulting from addiction has led to the collapse of many cultural and moral values and norms; in this way, it seriously threatens community health and development. Therefore, drug control, enhancement of the quality of service provision, and quality management in all sectors of life will lead to the increased quality of life, increased general welfare, promotion of the general health of families, and, consequently, the development of the community and the achievement of the goals of sustainable development (Farhadian, et al., 2009). Finally, based on the results of research on the realization of health-based sustainable development with an emphasis on addiction, the accomplishment of the following items is strongly recommended:

Developing a strategy and road map to implement sustainable development model programs with the centrality of general health and appropriate and efficient methods; the necessity of studying successful models of sustainable development with the centrality of health promotion in other countries and training of qualified experts in this field; the need for cooperation among governmental, industrial, academic, and other institutions at the macro level to achieve sustainable development; conduct of fundamental research to identify and contribute to the realization of sustainable development indices in collaboration with universities; provision of a hygienic, vital and safe environment for human interaction, education, employment, healthy recreation and entertainment, and cultural development by every community; planning to improve people's welfare and income, and reduce poverty and unemployment through the optimal use of resources in a region, which can balance the economic, social and environmental dimensions (the first step towards sustainable development); need to pay attention to the specific conditions of different regions of the country and use of appropriate developmental principles at the time of the development of macro-level programs; involvement of nongovernmental organizations and individuals in designing large-scale development programs and raising their awareness and influence; educating the public and informing them of the benefits of sustainable development with an emphasis on general health; the establishment and implementation of indigenous scientific standards in the country by universities to promote sustainable development and non-judgment on the basis of external standards in accordance with the conditions of other countries; and the transfer of concepts pertaining to sustainable development to the textbooks and teaching them in some of the national media.

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