

Explanation of the rate of biological environment health based on social capital components of students in Tabriz Medical and Dentistry University in 2010

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Abstract: This study examines the relationship between social capital and environmental health of student in Tabriz University of Medical Sciences. This study is a survey of the correlation. Statistical population of this research includes 1,700 people (all of the medical and dental students in Tabriz University of Medical and Dentistry Sciences) as reported by the university authorities in 1389, which 313 of them are studied by method of randomly proportion according to Cochran's formula. Students of other majors of the university are questioned by stratified sampling method. The following results were obtained after data collection using achieved questionnaires of social capital and environmental health and content validity measurement (the referees' opinion) and reliability: there was a relationship between the components of social capital (cohesion - trust - partnership - relationship) and social capital in general, with the environmental health. Cohesion and social trust explained 38% in environmental health from the perspective of the students.

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1. Introduction

With more and more increasing earth's population and human impact on environment and urban development, the earth is facing a crisis. Negative urban environmental effects are increasing to the extent that it is considered the biggest threat to these ecosystems. Unsustainable consumption of resources (ecological, economical and social) is worrisome. And one of the consequences is being threatened and lack of consistency in the quality of urban life. It means that if we continue to this waste structure with the same situation, in the coming years we are facing a crisis. This instability in the fields of natural resources, technology, urban development, human rights, society, culture and... Human in all fields, plans to reduce speed to reach crisis. Part of it depends on culture and society (quoted Asgarzadeh, 1382: 1). Social capital is a new concept which today has an effective role in health and, urban management development. This social phenomenon is called to a set of norms existing in society which provides a kind of social order and trust and confidence for people through interaction and leads to a social and cultural development of the health of the community. Twenty-year outlook of the country, considers a feature of Iranian society having health,

welfare, food security, social security, equal opportunity, the appropriate distribution of earnings, strong institutions of family, away from poverty and corruption and discrimination and the benefiting of the appropriate Biological environment.

Since nowadays more than 50 percent of the factors affecting the health are made up of social factors such as education, employment, poverty and, looking at health scope is a social-cultural approach as well. Iran's major cities are encountered with numerous challenges, including population density, housing, establishment of large industries, establishment of the main units of goods production and distribution, pollution and poor environmental conditions, lack of amenities and facilities for waste collection and treatment, unemployment, addiction, and traffic. This problem reminds the need to serious attention to the environmental health and urban health. "Social capitals are intangible assets considered mostly important in people's daily life: good faith, friendship, empathy and social interaction between individuals and families who make up a social unit." (Australia Productivity Commission research report, 1387: 10). Based on this, the health of urban society nowadays is considered as an intangible and rare asset for residents. Through

interaction with citizens and everyday life together, we can prove good faith of managers and urban executives toward sustainable urban development including urban health. So the main question of this study is that to what extent is the relationship between social capital components and environmental health.

Human concerns of environmental aspect in national, regional and global dimensions were evident when industrial development and use of few renewable and non renewable resources increased in the biosphere. Development is organically associated On the one hand with industry and technology and on the other hand with environmental degradation. If we don't pay attention to an important task such as environment beside industrialization, economic development will not only result, but also many involvements will occur, which sometimes will totally spend the benefits of an industrial activity for the community in the long-term, to offset damage of it. While in many cases with the use of compatible technology, the environment will be protected and using the residual wastes from other industrial activities, not only to avoid wasting natural and human resources mostly, but also by reserving non-renewable resources of a country and environmental protection will help to fund the Community Economic. Undoubtedly, industrial development and evolution has been provided many facilities in human societies. But it may also provide different environmental problems for the community equivalently. These problems are not always due to technology itself, but they are made because of lack of attention to the adverse results and incorrect application of technology and finally the lack of attention to prevailing rules and regulations. (Derakhshan, 1388: 2). In the traditional view of development management, economic, physical and human capitals played a significant role. But at the present time for further development we need the social capital more than economic, physical and human capital, because without these assets, using other assets of the improvements will not be made optimally (Mobasheri, 1387: 2). Actually the purpose of the continuous and constant improvement of health in a growing community interested in the welfare of urban life in many parts of social capital requires some thought and research.

1-Through continuing interacts with citizens; municipal managers and chief executives must try not to allocate charges with lower priority to urban development funds.

2- Social capital and strengthening it through trust and Reinforcing norms of the health providing, and also consistent activities of authorities in charge of health urban management with the other

institutions, can provide a kind of social order and collective and strong spirit for socialization and institutionalization of sustainable health behaviors in citizens to build a healthy and joyful city.

3- Indeed, the institutional authorities and the health-related fields should in the form of long- and short-term strategies provide executive and effective programs in urban centers to institutionalize hygiene observation and human health in different dimension with direct and indirect supervision continuously, stable and effective.

4- Encourage associations and non-governmental organizations (NGO) to socializing good health, and freezing non-normative behaviors in observing urban health is another goal of urban management activists related to strengthening social capital and making civic environment healthy.

5- Developing and sustaining accurate healthy behaviors in a good urbanization life through the means of educational, social, cultural and other tools is executable with the association of media, press, and other tools of urban organizations to establish sustainable urban development which is effective to explain the relationship between social capital and health aspect (Sharbatian, 1388: 5).

According to Putnam, relationship between social capital and urban health is important for four reasons: "First, citizens' various social networks make financial assistance available for citizens to reduce their urban lives' anxiety. Second, citizens social networks together and the relation of these social networks with executive management of urban health is improving standards of health and social and individual hygiene in citizens' life. Third, urban social networking in the form of NGO can better provide health services to citizens who are applying to. Fourth, interaction and ongoing social activities of urban management with residents in the area of social, personal, psychological and physical health causes revolve more active immune system against any urban hazard (Shojaei Baghini '1387:86). Marcuse suggests reconciliation with nature. It does not mean return to the era "before the new" or "organic" between man and nature. In this matter Marcuse's position is clear according to Horkhimer and Adorno. In his opinion "natural freedom" does not mean return to the stage before technique cognitive, but it means progress toward using achievements of technique cognitive civilization to rescue human and nature from devastating abuse of science and technology which is in the service of exploitation.

Instead, he talks about the rule of "liberation" on the nature which is against "oppressive" specific to the new industrial societies and He says, "No free society could be assumed not

to have coordinated efforts to alleviate persistent pain of humans on the natural world. The "rule of liberation" means "civilize" humanizing nature by permutation of material (and cultural) liberations from the "beast" or "raw nature" in the shape of parks, gardens, agricultural lands, perspectives and resources. Social capital is a set of social norms which is made through citizens interact with urban management series. Accordingly, urban management should provide social, psychological and physical health for citizens. Such activity increases the sense of responsibility and citizens' conscience to protect the urban health. Urban health and social capital leads to the development of health social norms in the minds of citizens' through mutual Interaction and action which executives have with the citizens. Social capital associated with the health of urban citizens, is formed through parameters such as trust, interactions and increase the collective spirit toward future. In Iran this association is somewhat wasted because of false politicization of managers. The goal of relation of these two phenomena is to continue Interaction of citizens and officials to reduce the wasteful costs of urban health and strengthen norms affecting health.

Kavachy and colleagues examined the relationship between social capital and social health, using crime as an indicator of social well-being. They have argued in their study that 2 series of social characteristics affect the level of crime: degree of relative deprivation in society and degree of coherence in social relations among citizens. They have tested their own conceptual framework using ecosystem data related to violent crimes and financial crimes in the United States of America and they have concluded that violent crimes (murder, assault, theft), have consistently mild relations with relative deprivation (income inequality) and indicators of social capital. In their research areas with high crime rates have been shown to have higher mortality rates.

Harfam and colleagues (2003, quoted Alizadeh ghavi fekr, 1388) in a research titled psychological health and social capital examine relationship between psychological health social capital. The population sample is 1,168 people between 25-15 years old whose psychological health is measured with a scale of 20 species. Also, social capital variable is measured in both structural and cognitive dimensions. The result of this study is that social capital in both the structural (civic participation, membership and activities in formal and informal organizations) and cognitive (trust, reciprocity, norms) dimensions affect people's health.

In a research by Dansby (2001) in California, entitled "Environmental health risk assessment negotiating for the" right to know "for public, Quantitative assessment of health risk is a

way to estimate the probability that being exposed to environmental pollutants will cause certain effects of against health, effects such as cancer. One of the usages of this method is the rule of "right to know" for public about toxic air in California. This article studies methods in which a valid evaluation about health risk is done and challenged during the implementation of public policy in California. Field work and analysis of available documentation shows that despite official restrictions in risk assessment procedures, Investors, hold some negotiations, but still express their competitive approach in performing risky telecommunications policy. An abstract of the results of these methods have been combined based on different organizational structures considering the uncertainty. In addition, this article shows that this political process leads to sustainability assessments and raises political negotiations as a fundamental technical level. Struggle and changes existing in interpretations are better described by organizing programs about Inconsistent values in the democratic accountability and technical efficiency.

In their research Shelz and Northridge (2003) in New York entitled "Social factors in health: industrial implications in promotion of environmental health, present methods for sociology and environmental and social contagious studies to find a mechanism contributing in social factors with different environmental exposures or health Equality. They speak of a conceptual framework for environmental health promotion which considers Social process of dynamics and rebuilds potentially transfers Environmental inequality and produced health-related disparity. The purpose of this study is developing community health by addressing various aspects of social processes and physical environments. Finally they recommend us to move from environmental treatment strategies to improve the health of our environment, because this improvement is stable and clearly designed to reduce disparities in health, environment and community.

Sadug Vaniny (1387) Ecological Geography of Shahi Beheshti University, Environmental Science Research Institute, conducted a study after the RIO Summit, entitled: the attitude of staff to 21th Agenda of World Summit on sustainable development and environmental Topics. In this study, the population sample of 120 was chosen randomly among statistical population. Results show that the 8 factors as underlying components of sustainable development estimate 3 / 82% of the variance. The results also show that from the view of experts the most significant dimension is conservation of natural resources and environmental management. Therefore, we conclude that the attitude to environment is more than social and economic dimension.

Research questions:

1 - How much has been the rate of components of social capital, social participation, social communication and environmental health among examined students?

2 - How much has been the contribution of each component of social capital in explaining student's environmental health?

2. Material and Methods

This research considering control conditions, was a descriptive - study [1].

The statistical population and method of determining sample size:

The statistical population of this study includes all students in Tabriz Medicine and Dentistry University in 1389 whose number was 1,700 according to statistics reported by the university authorities. A statistical sample of 313 people was determined using the Cochran formula and different majors of university were questioned by stratified sampling method.

Tools of measuring variables:

In this study, a made questionnaire is used to measure social capital and its components and also the environment health, So that questions were designed in Likert spectral-scale after studying theoretical topics and indexing variables.

Validity and reliability of variables:

For validation of questionnaires, formal credit and several experienced teacher' comments were utilized and for reliability of variables, Bach's Crohn coefficient alpha was used separately, So that the pilot study was conducted among 30 students and finally variables were respectively gained to the high resolution 7 / 0.

Findings:

Research Question 1: How much has been the rate of components of social capital, social capital and environmental health among examined students?

Table 1 shows the descriptive indicators including frequency, mean and standard deviation and the rate of studied sample in social capital variables and its components and also environmental health. As can be seen in the chart, the highest rate is for community involvement and the lowest is for social trust. The rate of social capital is totally 71% which is more than average. Also the rate of environment is about average and 61%.

Research hypothesis: there is a relation between social cohesion, social trust, social participation, social communication and overall between social capital and environmental health.

Table 1: descriptive indicators of tests in studied variables

Rate (percent)	Standard deviation	average	Lower score	Highest score	numbers	variables
%69	3/11	11.08	0	16	309	Social cohesion
%66	4/34	26.4	12	40	309	Social trust
%80	4/84	34/18	9	45	309	Community Involvement
%71	8/71	63/84	26	85	309	Social communication
%71	16/12	13/5	47	186	309	Social capital
%61	14/35	90/05	32	131	309	Environmental Health

Table 2 shows that the calculated correlation coefficient on the level (000 / 0) is significant in all the theories. Thus the all hypothesis of the research is confirmed and there is a relation between social cohesion, social trust, social participation, social communication and overall between social capital and environmental health.

Table 2: Correlation coefficients of variables of social capital and environmental health components in tests

environmental health	variables
0/6 0/000	Social cohesion
0/33 0/000	Social trust
0/25 0/000	Community Involvement
0/32 0/000	Social communication
0/45 0/000	Social capital

Research Question 2: How much has been the contribution of each component of social capital in explaining student's environmental health?

Table 3 indicates the remaining components of social capital variables in the form of regression. Multiple correlations with the students' environmental health is computed to 62/0 and the coefficient of determination to 384 /0 and the net coefficient of determination to 38 /0 and total components of social capital explains 38% of environmental health for students. Table 4 indicates that social cohesion with the beta (557 / 0) and social trust with the beta (139 / 0) has significant share in explaining environmental health.

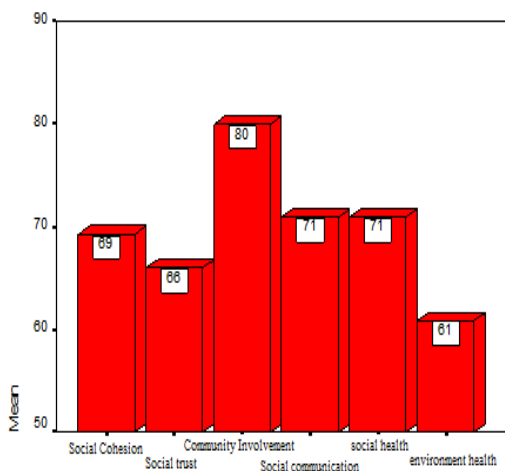
Table 3: Multiple correlation coefficient for students' environmental health

Standard error of estimate	Adjusted R Square	R Square	R	form
11/30	0/380	0/384	0/620	1

Table 4: Remaining coefficients of variables in the form of regression by step by step method

Significant level	ratio T	Standardized coefficients	Raw coefficients		order of variable Independent entry in the form
		Beta	Std.Error	B	
0/000	12/11		4/08	49/504	Fixed amount
0/000	11/61	0/557	0/22	2/56	Social cohesion
0/004	2/904	0/139	0/15	0/46	Social trust

(Social trust) 139/0 + (social cohesion) 557/0 = environmental health

**Figure 1:** Diagram of the rate of research variables**Results:**

The study results were in line with Putnam, Volkak, and Kavachy's ideas. According to Putnam's theories, social capital associated with urban health was important for several reasons: various social networks of Citizens provided financial assistance for citizens in such a way so that it can reduce anxiety of urban life. Social networks of Citizens with each other and their social communication with executive management of community strengthened health standards and urban living of citizens. Urban social networks (NGO) were better able to provide health and hygiene services.

Putnam believed that social capital and various aspects of social organization such as trust, cohesion and networks can improve efficiency of the society. He also argued that faith and interaction communication of members in a network are resources which exist in actions of members of the community. Improvement of environmental health on which the posterity life depends, could be provided through social relationships and social trust. Actually the more the Partnership between government and people in community, the better environmental health could be seen. Also according to theories of Habermas, Giddens and Marcuse on environmental health and human reconciliation with nature, we could implicate correlation and direct relation between social capital and environmental health. Based on the social parameters, trust was an indicator and perhaps the most important indicator among other parameters of social capital which led to sustainable social development in measurement of social capital and citizens urban health and caused strengthening other components too. Kavachy also believed that impact of some elements such as social-environmental mechanism related to benefits of social integration and high levels of social trust in collective level would improve the urban health status of residents in individual and public health dimensions. According to Volkak's theories, social capital in 3 dimensions of his opinion (internal-group Relationships, connected or external social capital and communicative) effected citizens welfare by emphasizing on public relations between citizens in different levels of power. Results of experimental background indicated that features of social capital have a direct relationship with health and the higher the social capital of society, the more health gained by community and environmental health. According to results of this research some issues were recommended to improve environmental health:

- 1- To effort maintaining cleanliness of the city as much as possible by proper training and notifying people considering technology and urban pollution.
- 2- To help improving environmental health by establishing local NGOs in every town and village and long-term planning.
- 3- Society managers to take steps in order to restore and maintain environmental health, considering specified budget and adopting practical strategies to provide the necessary infrastructures in society and collaborating with responsible organizations such as municipalities and environmental protection organization.
- 4- If people's participation increases in Administrating urban community affairs,

sense of responsibility for environmental health protection will be higher.

- 5- Social cohesion is a preparation to observe environmental health. sense of commitment increases With increasing consistency and environmental health will improve To the same extent.
- 6- Planning executive practical actions of community directors to Strengthen social capital underlies improvement and promotion of environmental health by public education, Incentive and punitive programs in observing environmental health principles privately and publicly.

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