

## The Conceptualization of the Response to Natural Disasters According to Translational Criminological Approach

Mohammad Matin Parsa<sup>1</sup>, Nabiollah Gholami<sup>1\*</sup>

1. Student of Criminal Law and Criminology at Allameh Tabataba'i University

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### Abstract

Effective prevention and coping with natural disasters as harmful events are among the most important concerns of policymakers and administrators in various areas of community affairs. Although decades ago, criminology was not noticed to the natural disasters, however, nowadays, under the influence of zemiological approaches, natural disasters, as one of the examples of state crime, are under the attention of thinkers in the field of crime criminology. Thus, the examination of these hazards from the point of view of criminal investigations can more and more determine the role of the state in this field. Translational Criminology is from the point of view of practice, including criminal investigations, which emphasize the operation of existing data and information, attempts to provide practical measures for events and phenomena. Therefore, the main purpose of this paper is the feasibility of the explanation of natural disaster with the Translational Criminological approach. The main question of this research is that, how can analyze natural disaster with using Translational Criminological approach, and provided guidelines for coping with these disaster and preventing them. In this regard, due to the nature of the data and the desired goals, it has been attempted to answer this question by carrying out qualitative research and using the theory of the basis. In addition, the method of data collection has been used in library and document sources. Accordingly, this approach seeks to provide the best response to any event by means of giving objectivity to available information and data by defining the three stages of risk assessment, decision-making and risk management. Regarding natural disasters, this criminal approach also involves collecting information and statistics on the possibility and probability of occurrence of hazards (risk assessment), explaining and defining the steps to respond to the incident that has occurred (decision making). Then, the presentation of strategies and guidelines for preventing risk reoccurrence, attempts to present operational solutions to reduce the risks of damage, prevent them from occurring, and explain the responsibilities of the executives and authorities.

**Keywords:** Natural disasters, Criminology, Translational Criminology, Risk assessment, Risk management.

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\* Corresponding Author, Email: nabiollah.gholami@yahoo.com

## Criteria Recognition of the Elements of Crimes about Risky Behaviors

Fazlollah Foroughi<sup>1</sup>, Amir Irani<sup>2\*</sup>

1. Associate Professor and Director of the Department of Criminal Law and Criminology, Faculty of Law and Political Sciences, Shiraz University
2. PhD Student of Criminal Law and Criminology, Faculty of Law and Political Science, Shiraz University

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### Abstract

Today, the risk of certain behaviors and the concern for ensuring the safety and health of the community in front of them has led to the development of relevant crime pillars under the influence of new knowledge, including hazard knowledge, in criminal law. All crimes have three important pillars: the pillars of the law (crime prediction as a criminal offense in the law), material pillars (elements that characterize criminal behavior, and only with the circumstances in which the crime is committed), the spiritual pillar (observer elements to the mental and mental state of the perpetrator, according to which the crime may be attributed to the perpetrator. For each crime, the legislator recognizes various elements and elements of these criminal behaviors, and therefore any crime, despite the fact that these three pillars are entirely presented, will have different components and conditions under these triple elements. Regarding these considerations, lawmakers have recently rejected the accepted principles of this body in criminal law for providing maximum protection to the safety, health and safety of the community, and considers this approach justified in protecting the community against dangers. Therefore, the basic question arises as to how far the legislator has evolved, given the recent crimes that the legislature has committed to offending the perils of committing perils? In other words, what has changed the direction of transformation in the components of the triple elements of crime? Along with the same in French and German criminal law, the crime of endangering individuals with the prediction of behaviors with a potentially dangerous outcome is one of the corollaries of these concerns, but in countries like Iran, scattered crimes that you are being punished with the same logic. In addition, expanding the new examples of the perilous criminal behavior and the complexity of the technicalization of their areas of concern, it is difficult to comprehend the identification of these crimes. To this end, it is necessary to address the criterion to them as a response to the question of whether this offense or other criminal elements with the same logic have the same

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\* Corresponding Author, Email: Irani\_amir@yahoo.com

characteristics and details. Among the criteria that can cover a wide range of criminal offending behaviors is paying attention to their pillars. In this framework, rationalism in criminalizing these behaviors and the sharing of laws and regulations in the comprehensive forecast of high-risk crimes and offenses is one of those developments. On the other hand, in the form of material pillars, the spread of the crime of abusive verbs, the determination of reasonable conditions for the imminence of a possible risk of behaviors and the precise determination of the type of relevance of such crimes are worthy of consideration. On the spiritual side, the spread of crimes based on the precariousness of the legislature and the perceived need for the legislature to assume certain maladministration, and sometimes the lack of need for proof, needs to be analyzed. In the form of addressing these crimes, it is possible to create a risk-taker criminal law system that, while trying to cope quickly and potentially criminal, returns health and safety to the community. This new criminal law has preventive function, in that it seeks to prevent the perpetrators from committing or committing them by predicting criminal behavior.

**Keywords:** Risky behavior, crime, legal principle (legality), actus rea, mens rea.

## **The Effect of Collegian's Group Counseling by Transactional Analysis in Comparison with Solution Focused Therapy on Emotional Expressiveness (Preceding High-risk Behaviors)**

**Elham Dorostian<sup>1</sup>, Shokooh Navabi-Nejad<sup>2\*</sup>, Valiollah Farzad<sup>3</sup>**

1. Ph.D Student, Department of Counseling, Science and Research Branch, Islamic Azad University, Tehran, Iran

2. Professor, Department of Counseling, Science and Research Branch, Islamic Azad University, Tehran, Iran

3. Associate Professor, Department of Counseling, Central Tehran Branch, Islamic Azad University, Tehran, Iran

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### **Abstract**

The analysis of human hazards of urban community and investigating urbanization perspective is necessary to address high-risk behaviors and behavioral uncertainties such as behavioral biases, aggression, vandalism, and social imbalance in the lives of families and predictors in Iran. The risky behaviors such as vandalism, acts of chastity, deviant behavior, and even war are affected by excitement and improper emotion expression. Improper styles of emotional expressiveness are a strong predictor of high - risk behavior. Also, emotional expressiveness is a key factor which prevent mood and Psychological disorders and social harms in facing disasters and natural hazards. This study aims to investigate the effect of Therapy by Transactional Analysis in comparison with Solution Focused Therapy on collegian's Emotional Expressiveness. This is a quasi-experimental study. The Emotional Expression questionnaire is used to identify the collegian's Emotional Expressiveness as the pre-test and the post-test. Statistical society of this study comprised of University of Art's collegians in Tehran. For this purpose, firstly, collegians of the University of Art were asked to complete the emotional expressiveness questionnaire so that, collegians with low emotional expressiveness could be identified. Then, 54 collegians were randomly selected as the statistical sample. These 54 collegians randomly divided into 3 groups, and each group comprised of 18 collegians. Two groups were considered as the Experimental Groups, and one group was considered as the Control Group. Each Experimental Groups had 10 intervention sessions of therapy by two different types of (Transactional Analysis (TA) & Solution Focused Therapy (SFT)) approaches. A post-test was taken in the end, from all groups. One month after the end of sessions, a follow up session was held, and Emotional Expression questionnaire was taken again

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\* Corresponding Author, Email: navabinejad@gmail.com

from all groups and then the results were compared with each other. The statistical methods used in this study are descriptive statistics (mean) and inferential statistics (the frequency measurement variance analysis method). The results showed significant efficacy in symptoms of Emotional Expressiveness in collegians under SFT experimental group and the results were compared with the control group ( $p < 0.001$ ), and results also showed significant reduction in symptoms of Emotional Expressiveness in collegians under TA experimental group and compared with the control group ( $p < 0.001$ ). Final results showed that Solution Focused Therapy is more effective than Transactional Analysis to increase emotional expression ( $p > 0.04$ ).

**Keywords:** Human hazard, High-risk behavior, Emotional expressiveness, Transactional Analysis, Solution Focused Therapy.

## Representation of Mahdasht Earthquake News in the Country's Press

Farokh Parsizadeh<sup>1</sup>, Parvaneh Pishnamazi<sup>2\*</sup>, Akbar Nasrollahi<sup>3</sup>

1. Assistant Professor International Inst. of Earthquake Engineering and Seismology (IIIES)
2. Researcher in Risk management research center, International Institute of Earthquake Engineering & Seismology (IIIES)
3. Assistant Professor Islamic Azad University Central Tehran Branch

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### Abstract

**Introduction:** It seems it is difficult to give a comprehensive definition on environmental hazards and risks. Burton and Keith has defined them as physical elements of the environment that are harmful to humans and created by external forces superior to human power. (Smith;1392,17). Generally speaking, a comprehensive definition of risk is that it implies a serious incident, phenomenon, process, situation or activity that may be harmful to a person, population, society and environment. (Moghim, 2014, 12) Environmental hazards become crisis, if not managed and controlled. The crisis, as defined by the World Health Organization, is a severe environmental and psychosocial disruption that goes well beyond the capacity of community acceptance (WHO 1992).

Iran has been exposed to various dangers; one of these risks, which sometimes confronts the country with a crisis is an earthquake. Just last year, more than one hundred earthquakes higher than 4 magnitudes occurred in different parts of the country. Karaj earthquake on December 2017, perhaps was the most important earthquake in the last year. Although this earthquake did not have fatalities, it is important because of its impact on Tehran's metropolis.

**Materials & Methods:** In order to reduce the damages of hazards and crises, a planning is required by a variety of tools, including the media. To this end, in order to produce a suitable model in the field of news coverage, dissemination of information, and communication, the contents of six widely published newspapers including: Hamshahri, Iran, Kayhan, Shargh, Shahrivad, and Javan, have been analyzed after Mahdasht earthquake for a period of 3 days.

**Results:** The result shows that performance of the newspapers for, dissemination of information could not satisfy the needs of audiences. Therefore, the principle of circulation of news was inadequate and they followed the natural law approach. The use of cyberspace and social media for informing, as well as new ways of journalism, such as infographics in the press, is

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\* Corresponding Author, Email: p\_pishnamazi@yahoo.com

diminishing, and this requires more attention and action. The strategy of the newspapers in terms of calmness of society was inadequate. Most of the material of the newspapers was produced by journalists itself and the published material was without conflict, which indicates the accuracy of the published material. The approach of most newspapers was eventful and less relevant to analytical articles.

**Keywords:** Hazards, Crisis, earthquake, News coverage, Newspapers.

## Investigation of the Stream Geomorphology Hazards on of Trunk-Line Energy Transmittal by Using the Pipeline Risk Model (IGAT-9)

Ebrahim Moghimi<sup>1\*</sup>, Mansor Jafar Beiglou<sup>2</sup>, Mehran Maghsoudi<sup>2</sup>, Nolberto Munier<sup>3</sup>, Amir Ahmadi<sup>4</sup>

1. Professor, University of Tehran, Faculty of Geography
2. Associate Professor, University of Tehran, Faculty of Geography
3. Professor, Polytechnic University of Valencia, Spain
4. PhD Student, University of Tehran, Faculty of Geography

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### Abstract

In recent years, valuable experiences have been gained in relation to environmental challenges, as well as pipeline risk management in the United States and Europe, in relation to the design and stabilization of pipelines, including the knowledge of geomorphological hazards, in particular the erosion hazards of the stream. It has helped to reduce the risk, and identify the response and response of the stream and rivers. In this paper, Pipeline Risk Screening Matrix studies the hazards of the geomorphology of the stream pipelines in the Iran gas trunk – line 9 (IGAT 9), in Khuzestan province. For this purpose, seven hydro-geomorphological data including scale, landscape sensitivity, stream type, riparian corridor, bank characteristics, bed characteristics and hydrologic regime were used. In the pipeline risk axis, three nominal scales include: Low risk, medium risk, and high risk were used to estimate the risk profile of the pipeline in relation to the increase or decrease of response and river responses. The results of this study showed that from the seven classes of the studied, the type stream is low-intermediate risk stream response and three classes, the riparian corridor, bed characteristics and hydrological regime are Medium risk. Bed characteristics and scale are medium-high risk and the landscape sensitivity high risk stream response. Overall, the class of risk stream response in IGAT 9, is medium – high risk stream response class.

### Introduction

In the world, most of the research work on the hazards of pipelines (oil and gas pipelines) is in the United States, Canada and Russia, respectively. Also Western European countries, in particular the UK, have had research in this field. In Iran, pipeline failure or damage to the pipeline is eroded annually, for example, Rafsanjan-Naein-Esfahan oil pipeline (2013), Ray-Tabriz (2017). In Iran, there

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\* Corresponding Author, Email: emoghimi@ut.ac.ir



is no comprehensive study in which the geomorphological impact of the erosion damages to the pipelines unlike the long history (over 110 year records) of the oil and gas industry. In this paper, the purpose is to identify and assess of the risk stream response by using of pipeline risk screening axis relation to IGAT 9.

### **Method and result**

In this paper we use of pipeline risk screening axis for estimate and identify of stream response risk class. This axis has seven criteria such as: scale, landscape sensitivity, stream type, riparian corridor, bank characteristics, bed characteristics and hydrologic regime. Pipeline risk screening axis classified into three categories, low risk, medium risk and high risk based on field data from seven criteria:

1) 50 river have point scale, 2 river reach scale, 4 rivers multi-reach and 4 rivers have watershed. 2) Landscape sensitivity have high risk reaction groups. 3) Stream type are two class include alluvial and bed rock. 4) Riparian corridor is 3 type of continuous – wide, semi continuous – wide and discontinuous – narrow. 5) bank characteristics have 3 type naturally non erodible, erosion resistant and highly erodible. 6) bed characteristics have 3 types boulder/cobble/clay bed, gravel /silt bed (dominate in case study) and sand bed. 7) hydrologic regime in our case study is rain and thunderstorm.

### **Conclusion**

The results of this study showed that from the seven classes of the studied, the type stream is low-intermediate risk stream response and three classes, the riparian corridor, bed characteristics and hydrological regime are Medium risk. Bed characteristics and scale are medium-high risk, and the landscape sensitivity high risk stream response. Overall, the class of risk stream response in IGAT 9, is medium – high risk stream response class. For decrease of stream response risk, and improvement Iran gas trunk – line 9, it needs to tight management – engineering measurements, and Geomorphologically in case of erosion stream and restoration and review of project of rout line.

**Keywords:** Geomorphology, hazard, Khuzestan, stream erosion, gas pipeline, pipeline risk screening matrix.

## Descriptive-statistical Analysis of the Relationship between Atmospheric Conditions and Urban Pollution in Tabriz

Ali Mohammad Khorshiddoust<sup>1</sup>, Gholam Hassan Mohammadi<sup>2\*</sup>, Fariba Aghlmand<sup>3</sup>, Atefeh Hosseini Sadr<sup>4</sup>

1. Professor, Department of Climatology, the University of Tabriz, Tabriz, Iran
2. PhD in Climatology, Iranian Meteorological Organization (IRIMO), East Azerbaijan Province, Central Bureau of Meteorology, Tabriz, Iran
3. M A. in Climatology from the University of Tabriz, Tabriz, Iran
4. Department of Geography, Payame Noor University (PNU), Tehran, Iran

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### Abstract

Air pollution is one of the environmental challenges of today's world in most major cities. Considering the importance of atmospheric conditions in the occurrence of air pollution, this study was conducted to investigate the relationship between urban pollution and atmospheric conditions of Tabriz. At first, 32 air pollution periods (125 days) were identified in Tabriz by studying changes in PM<sub>10</sub>, CO and SO<sub>2</sub> during 2008-2013. In order to create the database, 12 effective climate variables were collected at the mentioned days, and their correlation with the changes in the concentration of pollutants were investigated through descriptive analysis, Pearson correlation statistics and stepwise regression. The descriptive analysis of the values of the sustainability indices showed that the KI index in 12% of the cases and the TTI index in the 17-day period was between relatively unstable and relatively stable range, and in the rest of the cases, there was complete stability. The horizontal visibility proved to be between 600 and 10000 m, while the air temperature was between 12.6 to 21.7 T°C, which fell down to below zero at 37 days. Surface pressure in 91% of days was more than 1015 hpa, and the maximum daily wind speed in 64% cases was less than 5 m/s. A quantitative analysis of the inversion layer characteristics indicated that its  $\Delta T$  average with 4.89 T°C is in intensive category. The temperature inversion depth was 9 to 1769 m and their height was 454 m above the station, indicating the formation of inversions at low altitude in contaminated days. According to the Pearson correlation results, maximum wind speed and air pressure had the highest correlation with PM<sub>10</sub>. Also, there was a significant correlation between PM<sub>10</sub> concentration and all three stability indices, and this contaminant produced the highest correlation coefficient with inversion intensity and top height of the inverted layer with 0.26 and 0.20, respectively. Carbon monoxide concentration had significant correlation with climatic parameters of

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\* Corresponding Author, Email: Gh.mohammadi88@gmail.com

the land surface except the wind. Meanwhile, the highest correlation was estimated between temperature and relative humidity with coefficients of 0.64 and -0.77, respectively. Although the concentration of SO<sub>2</sub> in the studied years never reached unhealthy conditions, its concentration changes showed the highest correlation with the temperature, maximum wind speed and sea level pressure.

### **Introduction**

Air pollution is one of the problems most of the major cities, including Tabriz, face with. The large industries located in the west and southwest of Tabriz have been introduced as the most important causes of the pollution of Tabriz until the 80s. However, based on the results of the recent research, motor vehicles have been regarded as the most important source of air pollution in this city. Considering the effects of air pollution on water, soil, air, climate, living organisms, and also the human health, the study of the conditions creating and intensifying the air pollution was required. With a disadvantage in natural air conditioning and the atmospheric stability in the cold period of the year, the air of Tabriz always faces a temperature inversion, which often causes the air pollution in the city. Therefore, the present study was conducted to investigate the relationship between atmospheric parameters and air pollution in Tabriz.

### **Materials and methods**

The statistical periods studied in this research are from 2008 to 2013 during the cold period of the year. In this study, three data types were used: a) daily and hourly meteorological variables such as horizontal visibility, relative humidity, temperature, pressure (mean sea level), mean and maximum wind speed; b) daily and hourly statistics of atmospheric pollutants including CO, SO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>. The data is related to the mean data of the stations of the Namaz square (Raste Kooche), Rah Ahan, Hakim Nezami, Bagh Shomal and Abersan. Data recorded for the concentration of aerosols from 2008 to 2013 is related to particles less than 10 microns, but since 2013 onwards, the particle concentrations of less than 2.5 microns (PM<sub>2.5</sub>) were recorded instead of 10-micron particles; c) the upper atmosphere observational data (from the radiosonde) including atmospheric stability indices (SI, KI, TTI), and information on the properties of temperature inversion layer (including temperature inversion intensity, reverse layer depth, and top height of temperature inversion layer were obtained from the Wyoming University website.

### **Discussion and results**

Based on the data used, 32 air pollution incidents, which included 124 days, were identified. To form the database, 12 effective climate variables were

collected at the mentioned days and their relationship with the changes in the concentration of pollutants was investigated by descriptive analysis, Pearson correlation statistics and stepwise regression. The descriptive analysis of the values of the stability indices showed that the KI index in 12% of the cases and the TTI index in the 17% of days were between relatively unstable and relatively stable conditions, and for the rest of the days the complete stability was observed in the atmosphere. Horizontal visibility was at 600 to 10,000m and the temperature was between 12.6 and 21.7 °C, which was below zero at 37% of days. The sea level pressure in 91% of days was more than 1015 hPa, and the maximum daily wind speed in 64% of days was less than 5 m/s. The analysis of the quantitative properties of temperature inversion layer shows that the temperature inversion with an average of 4.89 °C indicates a relatively intense temperature inversion in the polluted days.

According to the results of Pearson correlation, the maximum parameters of wind speed, mean wind speed, and air pressure have the highest correlation with the changes in the concentration of PM<sub>10</sub> aerosols. There was a significant correlation between PM<sub>10</sub> concentration and all 3 stability indices. Also, among the properties of the temperature inversion layer, PM<sub>10</sub> concentration had the highest correlation coefficient of 0.26 with the temperature inversion intensity.

Other than with wind, the CO has a significant correlation with other climatic variables of the land surface. Meanwhile, it has the highest correlation with temperature and relative humidity variables with the coefficients of 0.44 and -0.57 respectively. Between the quantitative properties of the temperature inversion layer, the concentration of CO had the highest significant correlation coefficient at 95% confidence level with the temperature inversion intensity. During the studied years, the concentration of SO<sub>2</sub> was not close to unhealthy conditions, but the concentration of this pollutant in days with atmosphere stability and temperature inversion has increased and reached 53 ppb at the highest rate in study periods. SO<sub>2</sub> concentration has the highest correlation with daily pressure and temperature.

The result of stepwise regression for PM<sub>10</sub> pollutants revealed three maximum variables of wind speed, temperature inversion intensity, and KI index as the most effective determinant factors of PM<sub>10</sub> contamination. Among 12 independent variables, the final output of stepwise regression determined only the temperature and temperature inversion intensity as the most effective atmospheric parameters in changes in CO pollutant concentration. Also, the results obtained from the stepwise regression model for SO<sub>2</sub> proved that the average temperature, maximum wind speed and temperature inversion intensity had the highest effect on SO<sub>2</sub> process.

**Conclusion**

Among the studied climatic variables, the maximum wind speed, temperature and air pressure are more correlated with pollutants. Among the sustainability indicators of atmosphere, the suspended particles showed the most significant correlation with the KI index and with SI and TTI in the next orders. Between the stability indices studied, CO showed a significant correlation with non-critical states of KI, and SO<sub>2</sub> pollutant showed a significant correlation with SI and KI indices. Results obtained indicated that the temperature inversion intensity has a positive correlation with all three pollutants, which manifests an increase in the amount of pollutants in intense temperature inversions. A reverse correlation of horizontal visibility with the concentration of PM<sub>10</sub> and SO<sub>2</sub> pollutants also indicates the effect of these pollutants on reducing the horizontal visibility. Also, the temperature was the most effective element in the process of pollutants of CO and SO<sub>2</sub>. The wind speed has the highest correlation with aerosols. Of the studied variables, the temperature inversion intensity, the KI index (condition of atmospheric stability), and the rate of pressure affect the trend of increasing and decreasing the concentrations of all three pollutants.

**Keywords:** Urban pollution, atmospheric parameters, stability indices, Pearson correlation, Tabriz city.