STV-based Post-Crisis Psychological Reconstruction and Community Early Warning System

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Abstract

With the rapid increase in population and community size, its economy witnesses sharp growth. This development is accompanied by all sorts of crisis and problems that influence residents’ psychological health. To address this issue, the paper first analyzes causes of crisis awareness and their psychological reconstruction based on previous research and uses STV Cross Section Regression Model to set up an early warning system for the crisis which is then analyzed with questionnaire survey and regression analysis method. The study finds that external factors weigh more on residents’ crisis awareness than their subjective factors: of the former, mental health services in the community outweigh physical environment while of the latter, individual’s bearing capability and family environment have a similar effect on their crisis awareness.

Keywords: Positive Psychology, Community Residents, Psychological Reconstruction, Early Warning System.

1. RESEARCH BACKGROUND

1.1 Literature review

Recent rapid economic growth somehow contributes to crisis awareness among community residents. To reduce their psychological vulnerability, many scholars have researched in this area and achieved some results. Ji Weidong et al. used psychological experimental model and questionnaire to study residents’ vulnerability as well as their coping, explored an intervention path, and found that conducting psychological crisis intervention could significantly reduce residents’ vulnerability (Ji et al., 2010). They further studied the effect of group counseling on residents’ vulnerability and coping (Fang et al., 2010). Chang Xin analyzed major problems faced by a psychological intervention of current society and proposed specific measures in setting up an intervention model: increase policy support, improve psychological crisis intervention model, strengthen guidance in intervention, develop professionalism and capability, etc (Chang, 2015). Wang and Qiao believe that a harmonious society is comprised of harmonious communities, which base on residents’ mental health. Therefore, it was proposed to set up a complete psychological intervention system to ensure a healthy mental state of all residents (Wang an Qiao, 2015). Guo and Lu mainly studied post-crisis psychological reconstruction and the set-up and improvement of early warning system, discussed the psychological changes or reconstruction, and put forward some feasible measures in this regard (Guo and Lu, 2016).

1.2 Research purposes

Community, a miniature of politics, economy, and culture, is a unit of social structure, whose main body are residents. To heed residents’ mental state could help identify and prevent various social risks (Du, 2016). However, people are likely to focus on economic development and neglect the underlying psychological issues, which stife the growth speed. Thus, studies on psychological reconstruction and early warning system attract scholars’ attention (Zhang, 2012). This paper analyzes the causes of crisis awareness and psychological reconstruction, and the early warning system by applying STV Cross Section Regression Model. The study finds that external factors weigh more on residents’ crisis awareness than their own subjective factors, and mental health services in the community outweigh physical environment. It is expected to supplement to related literature and provide references to future studies on community crisis awareness.
2. CAUSES FOR CRISIS AWARENESS AND PSYCHOLOGICAL RECONSTRUCTION

Hit by natural or other disasters, community residents’ psychology will somehow be affected, giving rise to a large-scale crisis awareness. Specifically, residents’ crisis awareness are subject to many factors, like damage degree, the capacity of social support before and after crisis, and individual quality of residents which includes physical quality, genetic features, characters, life experience, psychological maturity, intensity towards crisis etc. (Shen et al., 2013). In psychology, people with self-defense, fear, and criticism will experience stronger crisis awareness when crisis happened. Factors such as gender, age, length of the trap, injury severity of relatives and more could also play a role. For example, surveys show that female residents are more prone to suffer mental problems, and lacking in family and society support may lead to more crisis awareness. Besides, despite methods adopted by people of different personalities in times of crisis may vary greatly, overall a positive correlation could be observed. In general, fragile people are very likely to act unexpectedly in crisis management.

Crisis awareness reconstruction is of vital importance, necessitating the cooperation and involvement of community psychological assistance system. Guided by the people-centered thinking and scientific outlook on development, the system integrates various selected ideas and methods, some from National Project on Mental Health and Guiding Principles of Emergency Intervention in a Psychological Crisis. It is well-organized, operable, easy to measure and adjust, as well as durable (Xu et al., 2012). Therefore, to achieve psychological reconstruction, authorities should consider the reconstruction features and procedures to establish a complete reconstruction framework for crisis awareness, and then set up a detailed scheme and model based on community residents’ conditions. Furthermore, community staff is expected to delve into the reconstruction and identify work in each stage, to provide a thorough and tailored scheme which will lessen the potential harm to the most substantial extent. In this process, psychological counseling should be prioritized to make it professional, and a supervisor is needed for a neat and sustained reconstruction work. Lastly, an evaluation mechanism is to be established, in which residents are separated into several groups to be monitored and evaluated on their harm and progress, to improve work efficiency and quality.

3. EARLY WARNING SYSTEM UNDER THE POSITIVE PSYCHOLOGY

3.1 Model building and variant selection

Crisis awareness problems are tricky, nevertheless, it does not necessarily mean that the crisis is unpredictable (Cheng et al., 2013). This paper selects some representative and sensitive early warning indicators and establishes an early warning system for crisis awareness featuring positive psychology, both of which are based on the actual conditions of the community and previous research or theories.

Of all the model analysis, STV Cross Section Regression Model is the most effective in early warning for long and unstable crisis. Hence, this paper adopts STV Model to warn the potential crisis awareness for residents. The regression model is as follows:

\[ CB = \beta_0 + \beta_1JM + \beta_2SQ + \beta_3JM*E1 + \beta_4JM*E2 + \beta_5SQ*F1 + \beta_6SQ*F2 \]  

(1)

JM represents residents’ own subjective factors, SQ community’s external factors; E1 psychological bearing capability, E2 family environment; F1 community environment, including natural, cultural, etc., F2 conditions of community mental health services; \( \beta_0, \ldots, \beta_6 \) regression coefficients.

Here are the assumptions in the regression model:

Assumption 1: The actual crisis awareness of the residents is low, i.e. external factors play a major role:

\[ \beta_1 = 0, \ \beta_1 + \beta_2 = 0, \ \beta_1 + \beta_3 + \beta_4 < 0 \]  

(2)

Assumption 2: The actual crisis awareness escalates, i.e. subjective factors play an important role:

\[ \beta_2 = 0, \ \beta_2 + \beta_4 = 0, \ \beta_2 + \beta_4 + \beta_6 < 0 \]  

(3)
3.2 Data processing

To obtain the first-hand data, we sampled and surveyed 100 residents in a certain block from Weifang from a psychology perspective in Sep. 2015. Among them 56 were males and 44 women, with the average age of 32 to 38. They were divided into study group and control group, each with 50 people. Participants should give informed consent and were required to have no severe physical or mental problems and education level higher than junior high.

Cronbach’s alpha and mean variance is adopted to test data’s reliability and validity. The formulas are \( \alpha = \frac{k}{k-1} \left(1 - \frac{\sum i^2}{s^2}\right) \) and \( AVE = \frac{\sum i^2}{\sum i^2 \Sigma f_j} \) respectively. Entering the data, there came the result of \( \alpha \) and AVE, both higher than the threshold 0.6. This confirms data’s reliability and validity for normalization and analysis.

3.3 Empirical analysis

After entering all the normalized data into the computer system to process with SPSS22.0 and applying the STV Cross Section Regression Model, here come the results:

\[
CB=1.59+1.37JM+2.82SQ+34.25JM*E1+26.73JM*E2+8.57SQ*F1+63.24SQ*F2
\]  (4)

As can be seen, the influence coefficient of residents’ subjective factors on crisis awareness is 1.37, while that of objective factors is 2.82. This indicates objective factors weigh more on crisis awareness in psychology. The influence coefficient of community environment on crisis awareness is 8.57, while that of mental health services of community is 63.24. This indicates that the latter has enormous implications in crisis awareness. Regarding subjective factors, their psychological bearing capacity have similar influence with family environment on crisis awareness.

4. CONCLUSION

Through theoretical analysis of causes of community residents’ crisis awareness and psychological reconstruction, and empirical analysis of its early warning system, we find that objective factors like the natural, cultural and mental health services exert immense impact on residents’ crisis awareness; subjective factors like psychological bearing capacity and family environment have limited and less effect. Consequently, community staff should recognize the importance of the mental health services, especially to the vulnerable, and enhance their crisis management and awareness by upgrading services. Meanwhile, the community should improve residents’ sense of security and happiness by improving the ambiance in and around the community, making it a harmonious, civilized, pleasant and caring environment. Additionally, staff from different departments should make concerted efforts to get to know residents’ real situations and thoughts, organize tailored counseling to every family and offer follow-up services, so as to improve residents’ self-identity and crisis management, and psychological health as a whole.

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