Research on the Dispositional Optimism and Mental Resilience of Rural Primary School Teachers in the Naxi Area

Changqing Li [1, 2]
[1]School of Preschool Education of Lijiang Teachers College
Lijiang, Yunnan, China, 674100
[2]Basic Education Research Center of Lijiang
Lijiang, Yunnan, China, 674100

Abstract—To do research on the dispositional optimism category and mental resilience of rural primary school teachers in the Naxi Area, a questionnaire survey was conducted against 4,193 rural primary school teachers by the means of dispositional optimism scale and mental resilience scale. For rural primary school teachers, an overall average score of the dispositional optimism was 21.03 ± 2.92, while the total score of the mental resilience was 62.87 ± 13.96. The total scores of the rural primary school teachers with various dispositional optimism were, with respect to the mental resilience: 67.29 ± 12.50 for Typical Optimism Category, 55.20 ± 13.48 for Typical Pessimism Category, 59.53 ± 11.72 for Undefined Category, and 65.18 ± 13.97 for Double Category. The dispositional optimism of the rural primary school teachers in the Naxi Area was slightly higher than the medium level, and there were four kinds of connection: Typical Optimism Category, Typical Pessimism Category, Undefined Category and Double Category. The mental resilience was close to be medium. There was a significant positive correlation between optimistic tendency and mental resilience, and the subscale. The rural primary school teachers with various dispositional optimistic categories have shown various mental resilience. The mental resilience level of the rural primary school teachers in Typical Optimism Category was the highest.

Keywords—Rural teachers; Dispositional optimism; Mental resilience; Naxi Area

I. INTRODUCTION

From the perspective of positive psychology researchers, the dispositional optimism is treated as a good expectation to which it is good rather than bad for an individual in the future, [1] including two independent [2-3] and stable personality traits such as optimistic trait and pessimistic trait [4]. Optimists hold the best expectations for the external environment, life adversity and adverse events, etc., while pessimists oppose it. The mental resilience is the ability and dynamic process in which the individuals adapt and change their living environment, and [5] is also a new concept of people's positive psychological quality interpreted under the adversity and difficult situations from different perspectives, with respect to the positive psychology [6]. Individuals with high mental resilience are more proactive in responding to and accepting the status quo [7].

The existing research rarely explores the relationship between the dispositional optimism and mental resilience of the rural primary school teachers. The research is proposed to take the rural primary teachers in the Naxi Area as the research objects to explore the dispositional optimism, mental resilience and the relationship between both, to provide reference for the subsequent relevant research.

II. RESEARCH OBJECTS AND METHODS

A. Research objects

Through convenient sampling, the primary school teachers who teach in schools in the township and village in the Naxi Area were selected as research objects. 4,500 questionnaires were distributed, of which 4,193 questionnaires were valid, excluding the omitted and incomplete questionnaires, etc.

B. Research methods

1) Optimism scale

In the research, the Life Oriention Test (LOT) [8] was adopted to measure the dispositional optimism. The scale consisted of 6 topics, including sub-tests in two dimensions: The optimistic tendency questions (1, 3, and 6) were scored in a forward manner, while the pessimistic tendency questions (2, 4, and 5) were scored in a reverse manner. The scale is scored at 5 points. The higher the total score during the test was, the more optimistic was, and vice versa for pessimist. The Krenbach alpha coefficient during the subtest and the whole test were 0.67, 0.64, and 0.72, respectively. [9]

2) Mental resilience scale

In the research, the CD_RISC (Connor-Davidson Resilience Scale, Connor-Davidson) scale compiled by Connor and Davidson in 2003 was used to measure the mental resilience [10]. The scale consisted of 25 questions, including 5 subtests: Ability (8), Negative Emotions Enduring (7), Changes Acceptance (5), Control (3), and Mental Effects (2). The scale was scored at 5 points. The higher the score was, the higher the mental resilience was. The internal consistency of the English scale was 0.89, and the retest reliability was 0.87. The Chinese version had an internal consistency coefficient of 0.91 [11], with good validity [10].

C. Statistical methods

All data were compiled and statistically processed by the of EXCEL2010 and spss20.0, and descriptive statistics, correlation analysis and variance analysis, etc. were conducted on the data. Test level α =0.05.

III. RESEARCH RESULTS

A. Information on the dispositional optimism of the rural primary school teachers

The total average level of dispositional optimism of the rural primary school teachers was scored as 21.03±2.92, the optimistic tendency was scored as 11.70±1.67, and the pessimistic tendency was scored as 9.32±2.11. Further, the difference test was conducted against the optimistic tendency and pessimistic tendency (pairing t=62.66, df=4192, P<0.001) to find that the correlation between the two was not significant (r=0.17, P>0.05), which indicated that the rural primary school teachers were more likely to hold both optimistic and pessimistic cognitive tendencies. According to the existing classification method, [12] we converted the scores of the test objects with respect to the optimistic tendency and pessimistic tendency into standard Z scores, and the scores were demarcated by 0. According to the scores of the test objects on both tendencies, namely more than 0 or less than 0, the objects were classified, and we finally obtained the specific distribution status of the four types of scores of the test objects. (1) Typical Optimism Category: The standard score of the test objects in the optimistic tendency was more than 0, while the standard score with respect to the pessimistic tendency was less than 0, and there were 1,410 (24.04±1.70), accounting for 33.60%; (2) Typical Pessimism Category The standard score of the test objects in the pessimistic tendency was more than 0, while the standard score with respect to the optimistic tendency was less than 0, and there were 974 (17.77±1.92), accounting for 23.20%; (3) Undefined Category: The standard scores of both optimistic and pessimistic tendencies of the test objects were less than 0, and there were 515 (21.07±1.67), accounting for 12.30%; (4) Double Category: The standard scores of both optimistic and pessimistic tendencies of the test objects were more than 0, and there were 1,294 (20.18±1.39), accounting for 30.90%;

B. Information on the mental resilience of the rural primary school teachers

The total score of the rural primary school teachers was 62.87±13.96 with respect to the mental resilience. The scores of each subtest were: 21.36±5.11 for the Resilience Ability; 16.32 ± 4.15 for the Negative Emotions Enduring; 13.42 ± 3.43 for Changes Acceptance; 7.60 ± 2.29 for the Control 4.17 ± 1.29 for the Mental Effects

C. The relationship between dispositional optimism and mental resilience of the rural primary school teachers

1) The mental resilience of the rural primary school teachers with various dispositional optimisms

The information on the mental resilience of the rural primary school teachers with various dispositional optimisms is shown in Table 1. The mental resilience of the rural primary school teachers with various dispositional optimisms was scored from high to low: Typical Optimism Category > Double Category > Undefined Category > Typical Pessimism Category. The mental resilience of the Typical Optimism Category got the highest score, while the mental resilience of the Typical Pessimism Category got the lowest score. Through the analysis of the mental resilience variance of the rural primary school teachers with various dispositional optimisms (see Table 1), there was a significant difference in the mental resilience of the rural primary school teachers with various dispositional optimisms (F = 189.14, P<0.01). Further LSD test showed that there were obvious differences between the mental resilience of the rural primary school teachers in the Typical Optimism Category and that of the teachers in the Typical Pessimism Category, Undefined Category and Double Category (all P values were <0.01); There was an obvious difference between the mental resilience of the rural primary school teachers in the Typical Pessimism Category and that of those in the Undefined Category and Double Category (all P values were <0.01); Beyond that, There was also a significant difference between the mental resilience of the rural primary school teachers in the Undefined Category and those in the Double Category (P <0.01).

TABLE I   THE MENTAL RESILIENCE OF THE RURAL PRIMARY SCHOOL TEACHERS WITH VARIOUS DISPOSITIONAL OPTIMISMS ($\overline{x}$ ±s)

Categories	n	$\overline{x}$ ±s	F value	P value
Typical Optimism Category	1410	67.29±12.50		
Typical Pessimism Category	515	55.19±13.47		
Undefined Category	974	59.52±11.72	189.14	0.00**
Double Category	1294	65.18±13.97		
Total	4193	62.87±13.96		

2) Note: *P <0.05, **P <0.01, the same applies hereinafter.

3) The correlation between the dispositional optimism and mental resilience of the rural primary school teachers

Through relevant statistics on the dispositional optimism and mental resilience of the rural primary school teachers, the statistical results showed that there was a significant positive correlation between the optimistic tendency and total score of mental elasticity, resilience ability, negative emotions enduring, changes acceptance, control and mental effects (R=0.51, 0.49, 0.54, 0.48, 0.68, and 0.40, all P values were <0.01), and the correlation between the pessimistic tendency and mental resilience and five dimensions were not significant (P > 0.05), as shown in Table 2.

TABLE II   CORRELATION COEFFICIENT BETWEEN THE DISPOSITIONAL OPTIMISM AND MENTAL RESILIENCE (N=4193, r)

	Total score of mental resilience	Resilience ability	Negative emotions enduring	Changes Acceptance	Control	Mental effects
Optimistic tendency	. 51**	. 49**	. 54**	. 48**	. 63**	. 40**
Pessimistic tendency	. 10	. 13	. 11	. 17	. 15	. 07

4) Regression analysis of the dispositional optimism and mental resilience of the rural primary school teachers

Forced regression analysis was performed, of which the dispositional optimism was taken as the independent variable and mental resilience as the dependent variable. Since the dispositional optimism was a non-continuous variable, it was first converted into a dummy variable [13]. We determined the Typical Optimism Category as a reference group and finally obtained three dummy variables, namely: "Temperament Type Virtual _2" is the Typical Pessimism Category & Typical Optimism Category; "Temperament Type Virtual _3" is Undefined Category & Typical Optimism Category; "Temperament Type Virtual _4" is Double Category & Typical Optimism Category. Through the regression analysis, the results showed: The multiple correlation coefficient between the three dummy variables and mental resilience was 0.55, the coefficient of determination (R2) was 0.51, the adjusted R2 was 0.47, and the estimated standard error of the regression model mean square error (MSE) was 3.11. Finally, a regression model was obtained. All the three dummy variables were included in the regression equation, which indicated that the variance level of the " mental resilience" of the rural primary school teachers has reached 55%, and the regression model showed a significant level of variation as a whole (F =189.14, P <0.01).

The coefficients of the three dummy variables were significant (t=-22.14, -11.50, -4.18, and all P values are <0.01), as shown in Table 3, which indicated that the three dummy variables could explain the mental resilience. The *β* (standardized regression coefficients) values of the Typical Pessimism Category & Typical Optimism Category, Undefined Category & Typical Optimism Category and Double Category & Typical Optimism Category were -0.37, -0.18, and --0.07, respectively, which indicated that the mental resilience of the rural primary school teachers in the Typical Optimism Category was higher than that of the teachers in the Typical Pessimism Category, Undefined Category and Double Category.

TABLE III   REGRESSION ANALYSIS OF THE MENTAL RESILIENCE OF THE RURAL PRIMARY SCHOOL TEACHERS WITH VARIOUS DISPOSITIONAL OPTIMISMS (N=4,193)

Model	Non-standardized coefficient		Standardized coefficient	t value	P value
	B	SE	Beta		
(Constant)	67.29	0.35		192.74	0.00
Typical Pessimism Category & Typical Optimism Category	-12.09	0.55	-0.37	-22.14	0.00
Undefined Category & Typical Optimism Category	-7.76	0.67	-0.18	-11.50	0.00
Double Category & Typical Optimism Category	-2.11	0.50	-0.07	-4.18	0.00

IV. DISCUSSION

As seen from the total score and subscale score of the rural primary school teachers with the dispositional optimism, the rural primary school teachers in the Naxi Area are mostly classified in the dispositional optimism, but there are a few teachers classified in the dispositional pessimism. Only the rural primary school teachers with optimistic trait can be rooted in the countryside, serve rural education, care for rural children, and suffer from inconveniences like work, life, child growth and individual development, etc., under the background of the times. The rural primary school teachers have the largest proportion of the Typical Optimism Category, while the Typical Pessimism Category has the lowest proportion, which further proves the characteristics of the rural primary school teacher group.

The level of the mental resilience of the rural primary school teachers in the Naxi Area is not high, but close to the medium level. Possible causes: Firstly, the rural society in the Naxi Area as a whole is very simple, harmonious in the neighborhood, good in a social atmosphere, and friendly in interpersonal relationships, etc.; Second, the most rural primary school teachers come from the countryside, are very familiar with the local customs & conditions, living habits, etc., and are easy to integrate into the rural environment; Thirdly, the most rural primary school teachers, at least, within one month prior to the mental resilience questionnaire, do not experience very significant natural disasters or man-made accidents, and few are in a very unfavorable injury scenario.

There are differences in the mental resilience of the rural primary school teachers with various dispositional optimisms. The mental resilience of the rural primary school teachers in the Typical Optimism Category have the highest level, while the mental resilience of the rural primary school teachers in the Typical Pessimism Category have the lowest level. This shows that the optimists are more able to adapt and change the living environment than the pessimists, as well as to deal with life adversity and adverse events.

V. CONCLUSION

Through questionnaire research, data processing, and analysis & discussion, we can see that: Firstly, the rural primary school teachers in the Naxi Area were mostly optimistic and accounts for higher proportion. Meanwhile, the rural primary school teachers also included some pessimists, but its proportion was not high. The rural primary school teachers were involved in the Typical Optimism Category, Typical Pessimism Category, Undefined Category and Double Category. Secondly, the rural primary school teachers who work and live in the Naxi Area with simple folk customs and social harmony had low scores on their mental resilience and the overall level was close to be medium. Thirdly, there was a significant positive correlation between the total scales and subscales of the rural primary school teachers in the Naxi Area with respect to the optimistic tendency and mental resilience of the dispositional optimism, while the pessimistic tendency was not significant. Fourthly, the mental resilience of the rural primary school teachers with various dispositional optimisms in Naxi Area were at different levels. The scores from high to low correspond to Typical Optimism Category > Double Category > Undefined Category > Typical Pessimism Category. The mental resilience of the Typical Optimism Category was at the highest level, while the mental resilience of the Typical Pessimism Category was at the lowest level.

ACKNOWLEDGEMENT

REFERENCES

[1] (Ireland) Carl (Carr A.), Ding Dan, etc.. Science about happiness and human superiority - Positive Psychology (Second Edition) ,Beijing: China Light Industry Press, pp.96-97,2013.

[2] Bryant F B, Cvengros J A. Distinguishing hope and optimism: two sides of a coin, or two separate coins?, Journal of Social & Clinical Psychology, vol. 23,pp.273-302,2004.

[3] Marshall GN, Wortman CB , Kusulas JW, et al. Distinguishing optimism from pessimism: relations to fundamental dimensions of mood and personality, Journal of Personality & Social Psychology, vol. 62,pp.1067-1074 ,1992.

[4] Carver C S. Optimism, Clinical Psychology Review, vol. 30,pp.879-889,2010.

[5] Wagnild G M , Young H M . Development and psychometric evaluation of the Resilience Scale, J Nurs Meas, vol. 1,pp.165-178,1993.

[6] Xi Juzhe, Zuo Zhihong, Wei W U. Research on Psychological Resilience Research, Advances in Psychological Science, vol. 20,pp.1426-1447 ,2012.

[7] Lamond A J , Depp C A , Allison M , et al. Measurement and predictors of resilience among community-dwelling older women, Journal of Psychiatric Research, vol. 43,pp.148-154,2009.

[8] Scheier MF. Carver CS, & Bridges MW. Distinguishing optimism from neurotic-ism (and trait anxiety, self-mastery, and self-esteem):A reevaluation of the life orientation test, Journal of Personality & Social Psychology, vol.67,pp.1063-1078,1995.

[9] Gu Honglei, Wang Caikang. Statistical Control of Project Expression Effect: Taking Chinese Life Directional Test as an Example, Psychological Science, vol.35,pp.1247-1253,2012.

[10] Yu X,Zhang J. Factor analysis and psychometric evaluation of the Connor-Davidson Resilience Scale (CD-RISC) with Chinese people, Social Behavior & Personality An International Journal, vol.35,pp.19-30,2007.

[11] Yu Xiaonan, Zhang Jianxin. Comparison of the Application of Self-Resilience Scale and Connor-Davidson Resilience Scale, Journal of Psychological Science, vol.30,pp.1169-1171,2007.

[12] Tao Sha. The relationship between optimism, pessimism and depression and the regulation of stress and gender, Acta Psychologica Sinica, vol.38,pp.886-901,2006.

[13] Wu Minglong. Questionnaire statistical analysis practice, Chongqing: Chongqing University Press, pp.405-410,2010.