

The Impact of Life Meaning on Life Satisfaction of Left-behind Elders in Rural China: Mediating Effect of Negative Emotion

Xiaoli Ni*
School of Humanities and Social Sciences
Xi'an Jiaotong University
 Xi'an, China
 nixiaoli@mail.xjtu.edu.cn

Xiaoyi Shao
School of Humanities and Social Sciences
Xi'an Jiaotong University
 Xi'an, China
 shao.xiaoyi@foxmail.com

Ran Qu
¹*Xi'an Jiaotong University*
²*Shaanxi Xueqian Normal University*
 Xi'an, China
 79096382@qq.com

Yangwen Geng
School of Humanities and Social Sciences
Xi'an Jiaotong University
 Xi'an, China
 gengyangwen@qq.com

Abstract—This study found a mediating association of negative emotion between life meaning and life satisfaction of Chinese rural elders. Life meaning had a negative prediction to negative emotion, and a positive prediction to life satisfaction; negative emotion negatively predicted to life satisfaction.

Keywords—*life meaning, life satisfaction, negative emotion, left-behind elders, rural China*

I. INTRODUCTION

With the development of China's labor economy, the rural youth has been flowing out, and the left-behind elders, left-behind women and left-behind children are gradually emergence. According to China's Aging Development Report [1], the number of left-behind elder people in China is about 50 million [2]. This phenomenon will not disappear in China within a short period of time, the left-behind elder population will exist for a long time, the family and social risk will be gradually revealed, so that the problem of rural left-behind elders is increasingly attracting the attention of the whole society.

Compared with ordinary old people, the rural left-behind elders are under more pressure and their life meaning face more challenges. In the study of the life meaning of left-behind elder people, depression, anxiety, other negative emotions, and life satisfaction are indicators commonly used. Among them, depression, anxiety and emotional health are often used as variables to measure mental health and negative aspects of left-behind elders. Life satisfaction is an important parameter to measure individual's overall quality of life, defined as "a subjective evaluation of the quality of life [3]", which is a cognitive component of life meaning [4], and it can be used as an index of positive aspects of life meaning of left-behind elders. Studies showed that the situation of life meaning and life satisfaction of left-behind elders were worrying [5], depressing [6], anxiety [7], and other negative emotions, which lead to lower life satisfaction [8]. Therefore, this current study hypothesizes that 1) the status of left-behind elders would

predict their negative emotions (depression and anxiety), 2) left-behind elders' negative emotions would predict their life satisfaction, and 3) the status of left-behind elders would predict their life satisfaction.

II. METHOD

A. Participants

According to the previous studies, the left-behind elders were defined as the Chinese rural elder people over 60 years old, whose children had been migrants over more than 6 months or the elder were left-behind by their children in home more than 6 months in a year [9].

The population, left-behind elders, selected by a cluster random sampling method, from 5 towns and 12 villages of Shaanxi province in western China as the research subject. 1174 questionnaires were sent, and 1079 (91.9%) valid questionnaires were recycled. The age distribution was from 60 to 89 years old ($M=67.81$, $SD=5.71$); Male was accounted for 58.8% and female 41.2%. Married (who's spouse is alive) was 77.0%, the remaining 23% were currently no partner (their spouses are dead is 19.5%, divorced 1.6%, and unmarried 1.9%); "College and above education" was 1.7%; "high school or technical secondary school" was 7.7%; "middle school 23.4%", "elementary school 45.8%", and "have never been to school" was 21.4%. The median family income was 10,000 RMB, and the number of grandchildren the family had were between 0 and 3 ($M=1.67$, $SD=0.778$).

B. Measures

1) *Left-behind Elders Survey*: The investigation included demographic information, such as age, gender, education degree, family income, "the frequency of children come back home" and "the frequency of children contact with family".

2) *Self-rating Depression Scale and Self-rating Anxiety Scale*: They were adopted in this study for measuring levels of depression [10] and anxiety [11], as "negative feelings" of rural

left-behind elders about their mental health. Both scales had 20 items with a 4-point measurement. The Cronbach's alpha were 0.693 and 0.821, respectively.

3) *Life Satisfaction Index B*: The scale was to measure left-behind elders' Life Satisfaction [12], as the dependent variable of left-behind elders' mental health. The scale contained 12 items, and the total scores ranged from 0 (the lowest life satisfaction) to 22 (the highest life satisfaction) [13]. The Cronbach's alpha was 0.784 in this measurement.

C. Statistical Tests

Spss 24.0 was used to statistical description; AMOS 24.0 was used to build structural equation model; correlation and liner regression analysis was used to predict results.

III. RESULTS

A. Statistical Analyses

The description analysis showed that the average of left-behind elders' life satisfaction was 14.41, significantly lower than ordinary old men (15.5 ± 4.7 , $n=177$), ($t=3.87$, $p<0.001$).

The anxiety and depression scores of left-behind elders were 39.21 ± 8.653 and 43.90 ± 6.844 . Specifically, non-anxiety in left-behind elders was accounted for 57.36%, mild anxiety of 29.09%, moderate anxiety 9.84% and severe anxiety of 3.71%; non-depression was accounted for 30.49%, slight to mild depression of 41.24%, moderate to severe depression 25.49%, and the severe depression was 2.78%. Compared with the depression (38.10 ± 11.80 , $n=504$) and anxiety ($31.669.24$, $n=504$) of urban community elders, the two scores (the average of depression was 43.90 ± 6.844 ; the anxiety 39.21 ± 8.653) were higher than that of left-behind elders in rural areas ($t=12.31$, $p<0.001$; $t=15.82$, $p<0.001$). The correlation analysis showed that the left-behind situation, negative emotion and life satisfaction were all correlated significantly. The absolute value of correlation coefficient were between 0.266 and 0.394 ($p<0.001$). Among them, the elders' left-behind status was negative related to the negative emotion, and positively related to life satisfaction; the higher frequency of their children come back home and contact with them, the less depression and anxiety of elders ($p<0.001$), and the more satisfaction of their life ($p<0.001$). There was a negative correlation between negative emotion and life satisfaction of left-behind elders ($p<0.001$).

B. Life Satisfaction Model of Left-behind Elders

In order to further test the effective path and mechanism of left-behind elders' life satisfaction, the study constructed a model including two latent variable, status of left-behind, and negative emotions; one observed variable, life satisfaction of elders as dependent variable.

Firstly, the data distribution was tested. The skewness value was between -0.341 and 0.792, and the kurtosis value was between -1.924 and 0.515, indicating that the data was basically consistent with the normal distribution. The VIF is between 1.053 and 1.458, indicating that the data did not have multiple common linear problems. Bootstrap1000 was adopted, and a SEM of left-behind elders' mental health was established to test the association among the status of left-behind, negative

emotions, and the left-behind elders' life satisfaction, especially to assess the mediating effect. The results showed that the model was fitted well ($\chi^2/df=2.172$; CFI=0.994; TLI=0.981; RMSEA=0.033; SRMR=0.013).

According to Shrout and Bolger [14], if the 95% confidence interval (CI) of average estimate of the mediating effect does not include 0, the mediating effect is considered to be significant at the 0.05 level. The mediating effect of the path of "status of left-behind \rightarrow negative emotions \rightarrow the elders' life satisfaction" showed that the direct effect of status of left-behind on elders' life satisfaction was 0.165 ($p<0.05$), the indirect effect was 0.101 ($p<0.05$, 95% CI[0.042, 0.159]). The indirect effect proportion in the total effect (mediating effect) was 37.97%. In other words, there was about one-third negative emotions affect between status of left-behind elders and their life satisfaction. It could be seen that the status of left-behind can directly predict the life satisfaction of left-behind elder people, which also could be predicted by negative emotions.

IV. DISCUSSION AND CONCLUSIONS

A. Life Meaning and Life Satisfaction

The meaning of life, also known as the individual sense of life meaning [15]. Based on integration of some influential concepts of life meaning, Steger, Frazier, Oishi and Kaler [16] defined life meaning as how people perceive and value himself and his own existence, especially awareness of his life is meaningful; life satisfaction is an important index of life quality [17]. Numerous studies abroad showed that life meaning and mental health were closely related [18]. Generally speaking, an individual whose life is more meaningful, the healthier, happier, less upset they would be, even live longer [19]. In this paper, the left-behind elders' average life satisfaction was 14.41, significantly lower than ordinary old people (15.5 ± 4.7 , $n=177$) ($t=3.87$, $p<0.001$). It demonstrated that to the perception of life meaning, the left-behind elders was lower than that of ordinary elder people.

B. Emotions, Life Meaning and Life Satisfaction

The previous study found that individuals with a higher sense of life meaning experienced lower risk of depression and anxiety [20]. For another, the influence of emotion on the life meaning could be discussed from two aspects: positive and negative emotion. The positive emotion of the individual had a significantly positive correlation with the sense of life meaning. Individuals with higher positive emotions were also more likely to experience higher level of life meaning and life satisfaction. Hicks, Trent, Davis and King [21] found the individual positive emotions can significantly improve the experience of life meaning; on the contrary, negative emotions and life meaning are negative correlation, in other words, the higher level of negative emotion was, the less individual perception of life meaning [22]. In this paper, the results showed that positive emotions of left-behind elders, the frequency of their children contact with them and come back home had a positive relationship with elder's life satisfaction. The more frequency of children come back home and contact with left-behind elders, the less experience of depression and anxiety of the elders ($p<0.001$), and the higher life satisfaction they perceive

($p < 0.001$). There is a negative correlation between negative emotion and life satisfaction ($p < 0.001$).

C. Prediction of Life Meaning and Life Satisfaction

Jin Yuchang and He Mingcheng, et al. [23] studied 45 articles in domestic with a total of 51 independent samples, meta-analyzed 27291 participants, and found that the effect of positive emotion between life meaning and life satisfaction was from 0.265 to 0.505, and negative emotion effect between them were from -0.195 to -0.300. This research suggested that life meaning could significantly positively predict life satisfaction and positive emotion, but negatively predict negative emotions. The results were in accordance with foreign research [24]. It meant that the higher experience of life meaning of individuals, the higher life satisfaction and positive emotion they had [25]. In this paper, the meditating effect of the path of "status of left-behind (children come back home and contact with left-behind elders frequency) → negative emotions → life satisfaction" demonstrated that the direct effect of left-behind situation on the elders' life satisfaction was 0.165 ($p < 0.05$), the indirect effect is 0.101 ($p < 0.05$, 95% CI[0.042, 0.159]). The indirect effect proportion (mediating effect) in the total effect was 37.97%. In other words, there was about one-third negative emotions affect between status of left-behind elders and their life satisfaction. Therefore, the status of left-behind (the frequency of children come back home and contact with left-behind elders) could predict life satisfaction of the left-behind elders directly, or indirectly, the negative emotion, a mediating effect could predict. It meant that the status of left-behind could directly predict the life satisfaction of left-behind elder people, which also could be predict by negative emotions.

STATEMENT AND ACKNOWLEDGMENT

The static data was obtained from the program of Shaanxi Social Science, NO.12N013, which was not permitted to be disclosure, because of participants privacy. Therefore, it was regret that the explanation of the statistical indicators was not used and relevant graphic illustration of the statistical results could not be provided in this article.

Thanks for all co-authors' cooperation and help.

REFERENCES

- [1] Li Xuan, & Yang Yuan, "Relationship of Sense of Coherence and Subjective Well-being among the Elderly in Chinese Rural," *Journal of Medical Theory & Practice*, vol. 20, pp. 2683-2685, 2013.
- [2] Cheng Mingming, Fan Fumin, "Meaning in Life on Psychological Theory and Measurement," *Psychological Development and Education*, vol. 26, no. 4, pp. 431-437, 2010.
- [3] Steger, M. F., Shim, Y., Rush, B. R., Brueske, L. A., Shin, J. Y., & Merriman, L. A., "The mind's eye: A photographic method for understanding meaning in people's lives," *The Journal of Positive Psychology*, vol. 8, no. 6, pp. 530-542, 2013.
- [4] Sternthal, M. J., Williams, D. R., Musick, M. A., & Buck, A. C., "Depression, anxiety, and religious life: A search for mediators," *Journal of Health & Social Behavior*, vol. 51, no. 3, pp. 343-359, 2010.
- [5] Vess, M., Routledge, C., Landau, M. J., & Arndt, J., "The dynamics of death and meaning: The effects of death-relevant cognitions and personal

- need for structure on perceptions of meaning in life," *Journal of Personality & Social Psychology*, vol. 97, no. 4, pp. 728-744, 2009.
- [6] Aquino, J. A., Russell, D. W., Cutrona, C. E., & Altmaier, E. M., "Employment status, social support, and life satisfaction among the elderly," *Journal of counseling psychology*, vol. 43, no. 4, pp. 480, 1996.
- [7] Boyce, C. J., Brown, G. D., & Moore, S. C., "Money and happiness: Rank of income, not income, affects life satisfaction," *Psychological science*, vol. 21, no. 4, pp. 471-475, 2010.
- [8] Di Tella, R., MacCulloch, R. J., & Oswald, A. J., "The macroeconomics of happiness," *Review of economics and statistics*, vol. 85, no. 4, pp. 809-827, 2003.
- [9] Eggebeen, D. J., & Hogan, D. P., "Giving between generations in American families," *Human nature*, vol. 1, no. 3, pp. 211-232, 1990.
- [10] Wang Xiangdong, Wang Xilin, Ma Hong, "A handbook of mental health scale," *China Mental Health Magazine*, pp. 75-79, 194-197, 235-238, 1999.
- [11] Dai Xiaoyang, "A handbook of general psychological assessment scale," *People's Military Medical Publishing House*, pp. 133-136, 153-155, 2011.
- [12] Sahin, M., Aydin, B., Sari, S. V., Kaya, S., & Pala, H., "Öznel iyi oluşu açıklamada umut ve yaşamda anlamin rolü [The role of hope and the meaning in life in explaining subjective well-being]," *Kastamonu Education Journal*, vol. 20, no. 3, pp. 827-836, 2012.
- [13] Seligman, M. E. P., "Authentic happiness," New York, NY: The Free Press, 2002.
- [14] Shrout, P. E., & Bolger, N., "Mediation in experimental and nonexperimental studies: new procedures and recommendations," *Psychological Methods*, vol. 7, no. 4, pp. 422, 2002.
- [15] Shrira, A., Palgi, Y., Ben-Ezra, M., & Shmotkin, D., "How subjective well-being and meaning in life interact in the hostile world?," *The Journal of Positive Psychology*, vol. 6, no. 4, pp. 273-285, 2011.
- [16] Steger, M. F., Frazier, P., Oishi, S., & Kaler, M., "The meaning in life questionnaire: assessing the presence of and search for meaning in life," *Journal of Counseling Psychology*, vol. 53, no. 1, pp. 80-93, 2006.
- [17] Steger, M. F., Kashdan, T. B., Sullivan, B. A., & Lorentz, D., "Understanding the search for meaning in life: Personality, cognitive style, and the dynamic between seeking and experiencing meaning," *Journal of Personality*, vol. 76, no. 2, pp. 199-228, 2008.
- [18] Gohil, E., & Charak, R., "Meaning in life, life satisfaction and positive and negative affect in older adults: Effect of gender and type of residence," *Indian Journal of Positive Psychology*, vol. 4, no. 1, pp. 55-59, 2013.
- [19] Enkvist, A., Ekström, H., & Elmståhl, S., "What factors affect life satisfaction (LS) among the oldest-old?," *Archives of gerontology and geriatrics*, vol. 54, no. 1, pp. 140-145, 2012.
- [20] Schmitt, M., "A meta-analysis on the correlation between the implicit association test and explicit self-report measures," *Personality & Social Psychology Bulletin*, vol. 31, no. 10, pp. 1369-1385, 2005.
- [21] Hicks, J. A., Trent, J., Davis, W. E., & King, L. A., "Positive affect, meaning in life, and future time perspective: an application of socioemotional selectivity theory," *Psychology & Aging*, vol. 27, no. 1, pp. 181, 2012.
- [22] Gana, K., Bailly, N., Saada, Y., Joulain, M., & Alaphilippe, D., "Does life satisfaction change in old age: Results from an 8-year longitudinal study," *The journals of gerontology series B: psychological sciences and social sciences*, vol. 68, no. 4, pp. 540-552, 2013.
- [23] Jin, Y., Mingcheng, H. E., & Junyi, L. I., "The relationship between meaning in life and subjective well-being in china: a meta-analysis," *Advances in Psychological Science*, vol. 24, no. 12, pp. 1854, 2016.
- [24] Cohen, K., & Cairns, D., "Is searching for meaning in life associated with reduced subjective well-being? Confirmation and possible moderators," *Journal of Happiness Studies*, vol. 13, pp. 313-331, 2012.
- [25] Baumeister, R. F., Vohs, K. D., Aaker, J. L., & Garbinsky, E. N., "Some key differences between a happy life and a meaningful life," *The Journal of Positive Psychology*, vol. 8, no. 6, pp. 505-516, 2013.