

Influence of Self Motivation on Mental Health of Elderly People

Canrui Chen ^{1*}, Jiajian Huang, Herui Shang

¹ Psychological Department, Guangzhou Medical University, Guangzhou 510182, P.R. China

***Correspondence:** Canrui Chen, MD, Guangzhou Medical University, Guangzhou, P.R. China. Email: chencanrui2006@126.com.

ABSTRACT

Objective: To study the influence of self motivation characteristics on mental health of elderly people.

Methods: Life Satisfaction Rating Scales A (LSRA), UCLA Loneliness Scale and Mandala Painting Method were used to assess 189 elderly people in Home for the Aged Guangzhou, with a mean age of 65.32 years old.

Results: a. The self motivation of the elderly people gives priority to integration stage (35 %) and protection stage (23.3 %); b. Elderly women had a significantly higher life satisfaction, Mandala integration feature and transcendental characteristic and a significantly lower loneliness than old man; c. Regression analysis show that a peaceful mood in painting process can explain 11 % of life satisfaction, while an increased peripheral color and a focused mood in painting process may explain 26 % of loneliness.

Conclusion: Self motivation characteristics affect the mental health of the elderly people.

Key Words: Mandal Painting; Elderly people; Life Satisfaction; Loneliness



ISSN:2397-9119

<http://mo.qingres.com>

 OPEN ACCESS

DOI: 10.20900/mo.20160021

Received: July 12, 2016

Accepted: September 13, 2016

Published: October 25, 2016

Copyright: ©2016 Cain et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

With the aging of China's population, more and more attention is paid to the mental health of elderly people. The life satisfaction and loneliness are closely related to the mental health of the elderly people. They describe the mental health situation of the elderly people based on the positive and negative moods or emotions ^[1] and they are the important indicators for the mental health of the elderly people. The studies show that there is a significant negative correlation between life satisfaction and loneliness of the elderly ^[2]. The scholars found that gender, education level, health status and coping style have a greater impact on the mental health of the elderly ^[3].

The psychoanalysis shows that the smooth performance of self motivation is the core factor affecting the mental health ^[4]. Self is the core concept of psychoanalytic theory and Gustav Jung believes that self is the organizer and coordinator of personality ^[5]. Self is composed of self motivation, emotional experience and self image ^[6]. The disorder of self functions will greatly affect the mental health of individuals. For example, people will experience the anxiety, depression and other negative emotions when their self motivation is blocked, while its

smooth performance may make the individuals to feel more positive emotions^[6].

Gustav Jung argues that the blockage of self-motivation may be presented by the Mandala painting works^[7]. This is because that Mandala is the self typical image and it is the manifestation form of self motivation. To this end, researchers have created the Mandala painting templates corresponding to the self motivation^[8]. These templates can effectively reflect the stage of self motivation in which the painter is situated^[4]. At present, Mandala painting method has been effectively used in psychological assessment and therapy^[9-12], and it is used even by some scholars to assess the severity of Alzheimer's patients^[13]. However, there is few empirical studies on the influence of the self motivation on the mental health of the elderly. Could the theoretical hypothesis in psychoanalysis on that the mental health status can be influenced by the self motivation be supported empirically? This problem has not only theoretical significance in psychologically analyzing the model construction of mental and pathological theory, but also the practical value to evaluate and improve the mental health status of the elderly. This study aims to mainly research the relationship between self motivation and mental health of the elderly via the Mandala painting method, including: what are the stages of self determination of the elderly? Is there any gender difference in self motivation characteristics of the elderly? Does the Mandala painting method predict the loneliness and life satisfaction of the elderly?

SUBJECTS AND METHODS

1. Subjects

Total 181 subjects were assessed after removing 8 invalid questionnaires from 189 subjects selected at random from Home for the Aged Guangzhou, with a mean age of 65.32 years old, including 61 elderly men and 120 elderly women.

2. Research Means

2.1 Life Satisfaction Rating Scale (LSRA)

LSRA was developed by Edward Dana in 1980. It has 20 questions in all and uses the scoring method of two points, 0 and 1. The higher the score in this LSRA is, the higher the life satisfaction will be. The scorer reliability was 0.78 upon the assessment in this study.

2.2 UCLA Loneliness Scale

UCLA loneliness scale was developed by Russell.

It has 20 questions in all and uses four-level scoring method. The higher the score in this scale is, the stronger the loneliness will be. The internal consistency was 0.89 and retest reliability was 0.73 upon the tests of the elderly in this study.

2.3 Mandala Template

Mandala templates representing six motivation stages of the self were selected from 173 mandala paintings in the Road of Mind – Self-Healing Picture Book prepared by Canrui Chen^[7], Yanhong Gao. These templates can effectively reflect the stage of self motivation of the painters.

2.4 Mandala Characteristic Scale

Mandala Characteristic Scale (28 questions in all) prepared by Canrui Chen^[4] was used. This scale was analyzed by the five-level scoring method and the characteristics of Mandala works were analyzed based on the painting structure, color, line, image and painting emotions. The scale was divided into five factors, namely, sense of security, sense of order, sense of coherence, sense of integration and sense of sacred. A higher score of factors corresponds to a stronger self motivation of the painter.

2.5 Painting Tools

24-color colored pencils of Chinese Brand, one pencil of Chinese Brand, one rubber and one pencil sharpener.

3. Testing Process

One-to-one testing way was used. The subjects were required to complete the LSRA and UCLA loneliness scale and then the test of Mandala Painting (the subjects were required to randomly select a painting from six Mandala templates to freely paint and write the painting thoughts). The experimenter should complete the Mandala Characteristic Scale according to the Mandala works and the subject's feeling during the coloring or painting as well as painting thinking after the subject has finished the painting or coloring. The testing process lasted 60 minutes or so. The painting analysts are all the professional psychoanalysts and they have received the professional analysis training of Mandala paintings.

4. Data Processing

All data were put into SPSS13.0 for descriptive statistics, t test, chi-square test, correlation analysis and regression analysis.

RESULTS

1. Self Stage and Naming Characteristics of the Elderly

The self stage and nomination of Mandala works of the elderly people were analyzed in Table 1 and Table 2.

The studies showed that the self motivation of the elderly people gave priority to integration stage

(35 %), protection stage (23.3 %) and condensation stage (15 %) in the phase of Self determination, while surmounting stage only accounted for 5 %. In the aspect of naming Mandala works, the elderly people mainly named the works with flowers (30 %), stars (21.7 %) and sun (13.3 %).

2. Test of Gender Difference of the

Table 1 Distribution of Six Self-Motivation Stages of the Elderly (%)

	Protection Stage	Differentiation Stage	Condensation Stage	Integration Stage	Guide Stage	Surmounting Stage
Times	42	15	27	63	24	9
Proportion	23.33	8.33	15.00	35.00	13.33	5.00

Table 2 Distribution of Main Images in Nomination of Mandala Works of the Elderly (%)

	Flower	Sun	Wheel	Star	Nature	Other
Times	54	24	12	39	15	36
Proportion	30.00	13.30	6.70	21.70	8.30	20.00

Elderly in Mandala Characteristics, Life Satisfaction and Loneliness

The gender difference of the elderly in life satisfaction, loneliness and Mandala characteristics was tested as shown in Table 3. The results show

that the elderly women have significantly higher life satisfaction, sense of integration and sense of sacred and significantly lower loneliness sense than the old man.

Table 3 Gender Difference of the Elderly in Life Satisfaction, Loneliness and Mandala Characteristics (n = 180)

Factor	Total Score	Female	Male	t
Sense of Security	7.13 ± 1.62	7.38 ± 1.58	6.65 ± 1.57	2.90
Sense of Order	31.38 ± 5.31	32.10 ± 5.13	29.95 ± 5.33	2.62
Sense of Condensation	30.77 ± 4.63	31.38 ± 4.78	29.55 ± 3.99	2.55
Sense of Integration	31.10 ± 5.12	32.23 ± 5.36	28.85 ± 3.68	4.39**
Sense of Sacred	6.55 ± 1.41	6.83 ± 1.23	6.00 ± 1.56	3.87*
Life Satisfaction	13.01 ± 3.59	13.49 ± 3.42	11.93 ± 3.74	4.72***
Loneliness	37.48 ± 8.54	36.40 ± 8.74	39.95 ± 7.51	- 4.70****

Note: P* < 0.05, P** < 0.01, P*** < 0.001, the same below.

3. Correlation between Mandala Painting Features and Life Satisfaction & Loneliness of the Elderly and Regression Analysis

The correlation between life satisfaction & loneliness and five features of Mandala works of the elderly was

analyzed. The results show the significantly positive correlation between life satisfaction of the elderly and senses of order, condensation and integration in their Mandala works, and the significantly negative correlation between loneliness and senses of security, order, condensation and integration of the elderly in their Mandala works, as shown in Table 4.

Table 4 Correlation between Mandala Features and Life Satisfaction and Loneliness of the Elderly

	Sense of Security	Sense of Order	Sense of Condensation	Sense of Integration	Sense of Sacred
Life Satisfaction	0.05	0.20**	0.23**	0.19**	0.06
Loneliness	-0.26**	-0.30**	-0.35**	-0.37**	-0.09

To further study the influence of the self motivation on life satisfaction and loneliness of the elderly, the stepwise regression analysis was performed by taking the life satisfaction and loneliness as the

dependent variable and Mandala painting feature as the independent variable. The analysis results are detailed in Table 5 and Table 6.

Table 5 Regression Analysis of Mandala Painting Features VS Life Satisfaction of the Elderly

Independent Variable	Nonstandard Coefficient B	Standard Error	Standard Coefficient	t	P	Correlation Coefficient R	Determination Coefficient R ²	Adjusted R ²
Constant	5.10	2.40		2.13	0.036	0.35	0.12	0.11
Peaceful Mood in Painting	1.77	0.55	0.35	3.19	0.002			

Table 5 demonstrated that a peaceful mood in the Mandala painting process had a better predictive effect on the life satisfaction of the elderly and it could explain 11 % variance of life satisfaction. The regression equation: life satisfaction = 0.375 × peaceful mood in painting + 5.10.

Table 6 Regression Analysis of Mandala Painting Feature VS Loneliness of the Elderly

Independent Variable	Nonstandard Coefficient B	Standard Error	Standard Coefficient	t	P	Correlation Coefficient R	Determination Coefficient R ²	Adjusted R ²
Constant	61.51	5.38		11.18	0.000			
Concentration of attention	-7.44	1.42	-0.60	-5.24	0.000	0.52	0.28	0.26
Increased peripheral color	2.92	1.01	0.33	2.88	0.005			

Table 6 showed that the concentration of attention and increased peripheral color in painting process had a better predictive effect on the loneliness of the elderly people and they could explain 26 % variance of loneliness. The regression equation: loneliness = 0.60 × concentration of attention in painting + 0.33 increased peripheral color + 61.51.

DISCUSSION

1. Self Motivation Characteristics of the Elderly

The research results show that the self stage of the elderly gives priority to integration stage (35 %), protection stage (23.3 %) and condensation stage (15 %). The higher proportion of self motivation in integration and protection stages means that the majority of the elderly mainly focus their attentions on coordinating conflicts and pursuing the sense of security. This result is identical to the findings of Min Li, *et al*^[14] that the somatization, anxiety, and interpersonal sensitivity of the elderly were significantly higher than those in the normal templates in China. It was found in the interviews that the elderly people are often to deal with complex relationships at the integration stage, such as, relationship between mother-in-law and daughter-in-law, inter-generational education, willing condition of admission into nursing homes or gerocomiums, and the like. These contradictions and conflicts are very intense under the impact of traditional culture and modern civilization. The interviews also found that the death anxieties of the elderly at the protection stage were more significant. In addition, the elderly people are less likely to be at the surmounting stage (5 %), which is possibly because that the self-transcendence will need more efforts, however, the elderly people are more inclined to enjoy their old age in peace rather than struggle.

As far as the nomination of Mandala works was concerned, the elderly people mainly named the works with flower (30 %), star (21.7 %) and sun (13.3 %). Flower is the genital of plants and it symbolizes the protection stage of the self^[15]. This result is consistent with the finding of the elderly mainly at the protection stage. In addition, the elderly people usually name the Mandala works with stars and the sun, which is similar to the research findings of the students^[11]. Jung argued that the relationship between ego and self could be expressed by the metaphor of the earth and the sun. Therefore, the sun and stars are the common images of Mantra^[16].

2. Gender Difference of Mandala Painting Characteristics, Life Satisfaction and Loneliness of the Elderly

The studies showed a significantly higher life satisfaction among elderly women and a significantly lower loneliness among elderly men. Weiwei Guo, *et al.* also found more social contacts in women than in men, and the elderly women are more likely to express their feelings via various ways. So, a better

life satisfaction and loneliness was found in elderly women^[3].

Relative to the men, elderly women have higher life satisfaction and lower loneliness. Is this situation related to the self motivation? In order to study this issue, we further analyzed the gender difference of the elderly people in the characteristics of Mandala works. The results show a significantly high sense of integration and sense of sacred in the Mandala painting works in the elderly women. The further analyses of the works found a significantly higher integration feature among the elderly women in the pictures of Mandala works, such as, harmony and integrity, image internal/external connection, balance of cool/warm colors, and fitness of image and color and other items, as well as a higher transcendence feature in the pictures like religious things and other items. ($p < 0.01$) These items reflect that the elderly women are more prone to bring into play the self motivation of integration^[14]. In real life, they are better at coordinating relations and contradictions or get beyond the predicament through the faith.

3. Relationship between Mandala painting Feature and Life Satisfaction & Loneliness of the Elderly

The related analyses showed a significantly positive correlation between life satisfaction and sense of order, sense of condensation and sense of integration reflected in Mandala works, and a significantly negative correlation between loneliness and the sense of order, sense of condensation and sense of security in Mandala works ($p < 0.05$). This result is consistent with the psychoanalysis hypothesis that self affects the mental health.

The regression analysis exhibits: life satisfaction = $0.375 \times$ peaceful mood in painting + 5.10. The peaceful mood in painting can explain 11 % variance of life satisfaction. This is because the painter with a peaceful mood can be more comfortable to deal with various relationships (cool/warm colors, trend/divergence, difference between psychological image and actual picture) during the painting process, and it reflects a higher self motivation of integration in the painter^[14]. Some studies show that a higher motivation of integration can also promote the self harmony of individuals^[15]. For this reason, It can be understood that the normal performance of self motivation of integration is the main cause for the life satisfaction of the elderly people.

Furthermore, the concentration of attention and increased peripheral color in painting process have a better predictive effect on the loneliness of the elderly people and they could explain 26 % variance

of loneliness. The regression equation: Loneliness = $0.60 \times$ concentration of attention in painting + 0.33 increased peripheral color + 61.51 . This is because the increased peripheral color is a behavioral habit of the painter with a weaker protective motivation and lower sense of security and it reflects a blocked self motivation of protection in the painter^[14]. On the contrary, the concentration of attention in painting means that the painter can concentrate on the events in life and it is the indicator of ensuring the unblocked self motivation of condensation. Therefore, the important factors forming the loneliness of the elderly people may be a lack of self motivation of protection and a scatterbrained attention.

In summary, the results of this study show that the self motivation has a significant influence on the mental health of the elderly people, including life

satisfaction and loneliness.

FUNDING SUPPORT

This work was supported by the grants from Education Science Planning Program of Guangdong in 2012 "A Study on Relieving Students' Stress by Mandala Psychological Painting Technique" (program No.: 2012JK209), Philosophy and Social Science Planning Program of Guangzhou in 2013 "A Study on EEG Improvement of Anxiety and Depression by Mandala Painting - Taking Guangzhou College Students as an Example" (program No.: 13G70) and PhD Start-up Fund of Guangzhou Medical University in 2012 "A Study on Promoting the Mental Health Mechanism of College Students by Mandala Painting Technique" (program No.: 2012C28).

REFERENCES

1. X. H Wang, H. F Zhou. Current Situation and the Relationship of Subject Well-Being and Life Quality and Loneliness of the Elderly. *Chin J. Geront.* 2010; 30(5):676-7.
2. F.X Wang, F.F Xu, F. Li. Current Situation of Subject Well-being and Loneliness of the Elderly. *Chin J. Geront.* 2011; (13):533-535.
3. W.W Guo, Y.Z Wang. Loneliness of Urban Aged People and Its Influencing Factors. *China J. Health Psych.* 2013; 21(9): 358-360.
4. C.R Chen. Feature, Function and Application of Mantra. Doctoral Dissertation of South China Normal University. 2012; 42-50.
5. C.R Chen, H.Y Shen. The Theory about Self of Jung and Post-Jungian. *Psych Explor.* 2011; 31(5): 391-396.
6. C.R Chen, Y.H Gao. Analysis of Children' Mandala Painting: Theory and Practice. Jinan University Press (Guangzhou). 2014:156-161.
7. Jung CG. The Collected Works of C. G. Jung – Image Analysis. Changchun Publishing House. 2014:67- 81.
8. C.R Chen, Y.H Gao. Road of Mind: Self-Healing Picture Book. Jinan University Press (Guangzhou). 2014:2-4.
9. Kim SI, Bae J, Lee Y. A computer system to rate the color-related formal elements in art therapy assessments. *The Arts in Psychotherapy.* 2007; 34:223–237.
10. Curry NA, Kasser T. Can coloring mandalas reduce anxiety? *Art Therapy: Journal of the American Art Therapy Association.* 2005; 22:81-85.
11. C.R Chen, D.W Zhou, Y.H Gao. Effect and Mechanism of Mandala Drawing. *Chin. J. Clin. Psych.* 2013; 21(1):124-126.
12. Schrade C, Tronsky L, Kaiser DH. Physiological effects of mandala making in adults with intellectual disability. *The Arts in Psychotherapy,* 2011 ; (38):109-113.
13. Kim SI, Kang HS, Kim YH. A computer system for art therapy assessment of elements in structured mandala. *The Arts in Psychotherapy,* 2009; 36(1):19-28.
14. M. Li, J.Z Guo, R.M Wang, et al. Mental Health of Aging Population in Shandong Province and Its Influencing Factors. *China J. Health Psych.* 2016; 24(5): 354-360.
15. C.R Chen, Y.H Gao. *Mirror of the Mind: Mandala Painting Therapy.* Jinan University Press (Guangzhou). 2014:42-45.
16. Jung CG. *Concerning Mandala symbolism in CW9i.* Princeton, NJ: Princeton University Press. 1950:42-52.