A Comparative Study on Quality of Life of Re-employment and Non-re-employed People after Retirement

Jia HE¹,², Tiantian YUAN², Fange LIU¹,*
Xiangyan FENG³ and Meifang QIAN³

¹School of Medicine, Xi'an Peihua College, Xi'an, Shaanxi Province, China
²School of Medicine, Yan'an University, Yan'an, Shaanxi Province, China
³Xi'an Jiaotong University Hospital, Xi'an, Shaanxi Province, China

*Corresponding Author

Keywords: Retirement, Re-employment, Quality of life, Influencing factors

Abstract. To compared the quality of life and factors affecting the re-employment and non-employment of retirees, suggestions were provided for re-employment and provide for the aged. 450 retirees between 50 and 70 years of age in Xi’an city were surveyed and interviewed semi-structured by means of self-made general situation questionnaire, SF-12 scale and social support revalued scale, and the results were statistically analyzed. There was a strong willingness of retirees to re-enter the workforce, 298 (66 %) of the 450 people were willing to re-enter the workforce and 167(37 %) were re-employed; the quality of life and social support scores of those who have been re-employed are higher than those of those who have not been re-employed (t=-5.595, p<0.05; t=-7.748, p<0.05); low re-employment rates for people with chronic diseases and those who need to care for grandchildren (χ²=26.511, p<0.05; χ²=33.772, p<0.05). The factors that have statistical significance for the re-employment of retirees are the willingness to re-employment, the care of grandchildren, the chronic diseases, the quality of life, and social support. The quality of life of re-employed persons is better than that of non-re-employed persons, and re-employment is affected by many factors.

1. Introduction

According to the National Office for the elderly, as of the end of 2018, China’s population aged 60 has reached 249 million, accounting for 17.9% of the total population. The aging and old-age situation are grim. Some Chinese scholars have found that retirees are often confused and prone to “uselessness”, affecting their physical and mental health and finally reducing the quality of life [1]. In order to get rid of the aging and pension difficulties and improve the quality of life of retirees, the “13th Five-Year Plan” for the development of the elderly and the construction of the pension system should expand the social participation of the elderly and strengthen the development of the elderly resources [2]. Re-employment is one of the forms of social participation of the elderly, but current research focuses on the willingness to re-employment, the system and its influencing factors, and pays little attention to the quality of life of its personnel, and whether their quality of life is more than that of non-re-employed people. Excellent, there is no consistent conclusion. The purpose of this paper is to investigate the status of reemployment and non-employment of retirees in three urban districts of Xi’an, compare their quality of life and explore their influencing factors, and provide suggestions for improving the quality of life of retirees and related pension and retirement policies.

2. Participants and Methods

2.1. Participants

During October to December 2018, a convenient sampling method was adopted to randomly select 50 to 70 year-old retirees from a certain urban area in Xi’an. Inclusion criteria: retired people
aged 50 to 70 years old, healthy and re-employability, and volunteered to participate in the study; exclusion criteria: mental illness, severe acute and chronic illness and physical illness, lack of re-employability and inability to cooperate with researchers. A total of 455 questionnaires were distributed, and 450 valid questionnaires were returned, with an effective rate of 98.9%.

2.2. Survey scales

2.2.1. General Questionnaire

Designed by the researcher, it mainly includes gender, age, marital status, education level, economic status, presence or absence of chronic diseases, pre-retirement occupation, re-employment or not and willingness to re-employ.

2.2.2. The mos 12-item short form health survey (SF-12) [3]

It is a simplified version of the SF-36 scale with good reliability and validity. The Cronbach's alpha coefficient in this survey is 0.825. Through 8 dimensions of general health (GH), physiological functioning (PF), role physical (RP), bodily pain (BP), vitality (VT), social functioning (SF), role-emotional (RE) and mental health (MH) to assess the physical condition and psychological situation of the individual. The GH, PF, RP, and BP dimensions represent physical component scale (PCS), and the VT, SF, RE, and MH dimensions represent mental component summary (MCS). The total score of the scale is the sum of the scores of each dimension. The higher the score, the better the quality of life.

2.2.3. Social support revalued scale (SSRS) [4]

It was compiled by Xiao Shuiyuan in 1986 to measure individual social support and has good reliability and validity. The scale consists of subjective support, objective support, and support utilization in three dimensions and 10 entries. The total score is the sum of the entries. The higher the score, the higher the level of social support.

2.2.4. Questionnaire issuance and semi-structured interviews

The researcher and the trained investigators conducted a unified collective test of the subjects, and the questionnaires were distributed on the spot and collected on the spot. Semi-structured interviews were conducted with 30 retirees, who have free time and engage in different occupations before retirement. The interview outlines include: 1. The reasons and purpose of re-employment? 2. What is the source of re-employment information? 3. How does re-employment affect your health? 4. Whether to recommend retirees to re-employ? 5. How to evaluate the current retirement age and retirement policy?

2.2.5. Statistical analysis

SPSS 22.0 statistics were used. The measurement data were expressed as ( x ± s); the count data were analyzed by χ2 test, and the influencing factors were analyzed by single factor and binary logistic regression analysis. The difference was statistically significant at P<0.05.

3. Results

3.1. Sociodemographic characteristics

Among the 450 research participants, 167 were reemployed and 283 were not reemployed, and the reemployment rate was 37%. There were statistically significant differences in the age, education level, economic status, willingness to re-employ, chronic illness, caring for grandchildren, and self-rated health of reemployed people and non-re-employed people (P<0.05). Seeing Table 1 for details.
Table 1. Comparison of general information on whether retirees are re-employed [n (%)].

| Variable                  | Reemployment (n=167) | Not reemployed (n=283) | $\chi^2$ | P      |
|---------------------------|----------------------|------------------------|----------|--------|
| Gender                    |                      |                        |          |        |
| Male                      | 87(39.0)             | 136(61.0)              | 0.685    | 0.408  |
| Female                    | 80(35.2)             | 147(64.8)              |          |        |
| Age                       |                      |                        |          |        |
| 50-55 years               | 30(55.6)             | 24(44.4)               | 18.316   | 0.000  |
| 56-60 years               | 46(42.6)             | 62(57.4)               |          |        |
| 61-65 years               | 63(37.1)             | 107(62.9)              |          |        |
| 66-70 years               | 28(23.7)             | 90(76.3)               |          |        |
| Marriage                  |                      |                        |          |        |
| Married                   | 158(37.7)            | 261(62.3)              | 0.931    | 0.335  |
| Widowed                   | 9(29)                | 22(71)                 |          |        |
| Education                 |                      |                        |          |        |
| ≤Junior high school       | 15(21.4)             | 55(78.6)               | 11.543   | 0.003  |
| Between the two           | 48(34.5)             | 91(65.5)               |          |        |
| ≥College                  | 104(43.2)            | 137(56.8)              |          |        |
| Economy                   |                      |                        |          |        |
| Completely independent    | 147(40.1)            | 220(59.9)              | 7.398    | 0.025  |
| Reluctantly maintain      | 13(24.5)             | 40(75.5)               |          |        |
| Partial support           | 7(23.3)              | 23(76.7)               |          |        |
| Way of living             |                      |                        |          |        |
| Living alone              | 11(45.8)             | 13(54.2)               | 0.873    | 0.646  |
| Living With his wife      | 101(37)              | 172(63)                |          |        |
| Living with children      | 55(35.9)             | 98(64.1)               |          |        |
| Willingness of Reemployment |                    |                        |          |        |
| Yes                       | 163(54.7)            | 135(45.3)              | 116.92   | 0.000  |
| No                        | 4(2.6)               | 148(97.4)              |          |        |
| Number of children        |                      |                        |          |        |
| ≤one                      | 112(38)              | 183(62)                | 0.465    | 0.793  |
| two                       | 49(36.8)             | 84(63.2)               |          |        |
| ≥three                    | 6(27.3)              | 16(72.7)               |          |        |
| Chronic disease           |                      |                        |          |        |
| Yes                       | 100(30.1)            | 232(69.9)              | 26.511   | 0.000  |
| No                        | 67(35.6)             | 51(64.4)               |          |        |
| Pre-retirement occupation |                      |                        |          |        |
| Corporate employee        | 50(32.1)             | 106(67.9)              | 2.634    | 0.268  |
| Institutional staff       | 59(40.1)             | 88(59.9)               |          |        |
| Civil servant             | 58(39.5)             | 89(60.5)               |          |        |
| Take care of grandchildren|                      |                        |          |        |
| Yes                       | 23(17.3)             | 110(82.7)              | 33.772   | 0.000  |
| No                        | 144(45.4)            | 173(54.6)              |          |        |
| Health self-evaluation    |                      |                        |          |        |
| Good                      | 99(53.5)             | 86(46.5)               | 36.248   | 0.000  |
| Medium                    | 57(25.9)             | 163(74.1)              |          |        |
| Poor                      | 11(24.4)             | 34(75.6)               |          |        |

3.2. Quality of life and social support

The social support scores and dimensions of reemployed workers were higher than those of non-re-employed persons, and the total social support score, subjective support and support utilization were statistically significant (p<0.05), the total score of quality of life, PCS and MCS of reemployed workers was also higher than that of those who were not reemployed, and the difference was statistically significant (p<0.05). See Table 2.
Table 2. Quality of life and social support scores of retirees [n=450].

| Item                          | Average score (x ± s) | t     | p      |
|-------------------------------|-----------------------|-------|--------|
|                               | Reemployment (n=167)  |       |        |
| Total social support score    | 40.51±4.83            |       |        |
| Subjective support            | 23.21±2.95            |       |        |
| Objective support             | 9.99±1.59             |       |        |
| Support utilization           | 7.32±2.06             |       |        |
|                               | Not reemployed (n=283)|       |        |
| Total social support score    | 37.74±5.22            |       |        |
| Subjective support            | 21.21±3.13            |       |        |
| Objective support             | 9.88±1.48             |       |        |
| Support utilization           | 6.64±2.06             |       |        |

3.3. Quality of life and social support among different occupations

Among the non-re-employed persons, the social support scores, PCS and MCS scores of the corporate employees were statistically significant compared with the personnel of the institutional staff and the civil servants (p<0.05). Among the re-employed persons, the MCS scores of the corporate employees were not significantly different from those of the institutional staff and the civil servants; there was no significant difference in PCS, MCS and social support scores between the institutional staff and the civil servants regardless of whether they were reemployed or not. See Table 3.

Table 3. Comparison of quality of life and social support among different occupations (x ± s).

| Item                          | PCS            | MCS            | Total social support score |
|-------------------------------|----------------|----------------|----------------------------|
| Reemployment                  |                |                |                            |
| Corporate employee            | 74.57±14.00    | 83.67±12.52    | 38.00±3.97                 |
| Institutional staff            | 81.84±10.22a   | 86.06±10.89    | 42.03±5.06a**              |
| Civil servant                 | 79.80±8.69a*   | 84.39±8.55     | 41.14±4.48a**              |
| F/P                           | 6.139/0.003    | 0.737/0.480    | 11.457/0.000               |
| Non-re-employed               |                |                |                            |
| Corporate employee            | 66.04±16.46    | 72.27±11.89    | 35.35±4.00                 |
| Institutional staff            | 73.13±12.06a   | 78.60±10.47a   | 38.77±4.77a**              |
| Civil servant                 | 74.48±11.69a   | 81.21±8.76a*   | 39.57±4.86a**              |
| F/P                           | 10.762/0.000   | 18.741/0.000   | 20.924/0.000               |

Note: “a” indicates comparison with corporate employees; *, p<0.05; **, p<0.01.

3.4. Correlation between social support and quality of life

The higher the level of social support of retirees, the higher the quality of life score. Comparison of quality of life scores of retirees with low, medium and high levels of social support, the difference is statistically significant (F=21.728, p<0.05), see Table 4. The total quality of life was positively correlated with the total score of social support (r=0.481, p<0.05), as shown in Table 5.

Table 4. Quality of life scores of retirees with different levels of social support.

| The level of social support | Reference (score) | Composition ratio [n (%)] | Quality of life score (x ± s) |
|----------------------------|-------------------|---------------------------|-------------------------------|
| Low level                  | 12-22             | 3 (0.7)                   | 55.21±16.04                   |
| Medium level               | 23-44             | 386 (85.7)                | 75.87±11.19                   |
| High level                 | 45-66             | 61 (13.5)                 | 84.32±8.76                    |
Table 5. Correlation between quality of life and social support of retirees (r).

| Item         | Total score of SF-12 | PCS   | MCS   |
|--------------|----------------------|-------|-------|
| Total social support score | 0.481**  | 0.411**  | 0.462**  |
| Subjective support | 0.469**  | 0.409**  | 0.440**  |
| Objective support | 0.324**  | 0.274**  | 0.317**  |
| Support utilization | 0.252**  | 0.207**  | 0.255**  |

Note: **, p<0.01

3.5. Multi-factor analysis of re-employment

With the re-employment as the dependent variable, the univariate analysis of statistically significant demographic variables, social support and quality of life levels were included as independent variables in the logistic regression analysis model. The results show that the factors affecting re-employment include re-employment willingness, caring for grandchildren, chronic diseases, social support and quality of life. See Table 6.

Table 6. Analysis of the influencing factors of reemployment after retirement.

| Item                        | B      | S.E    | Walds   | P      | OR    | 95% CI          |
|-----------------------------|--------|--------|---------|--------|-------|-----------------|
| Re-employment willingness   | -3.639 | 0.534  | 46.348  | 0.000  | 0.026 | 0.009-0.075     |
| Caring for Grandchildren    | 1.384  | 0.306  | 20.410  | 0.000  | 3.992 | 2.190-7.277     |
| Social support              | 0.057  | 0.028  | 4.037   | 0.045  | 1.509 | 1.001-1.119     |
| Quality of life             | 0.054  | 0.015  | 13.478  | 0.000  | 1.056 | 1.026-1.087     |
| Chronic diseases            | 0.595  | 0.281  | 4.484   | 0.034  | 1.813 | 1.045-3.144     |

3.6. Interview results

1) The main reason for re-employment is boring after retirement, irregular life, and disjointed society; not reemployed is due to the need to take care of grandchildren, senior parents or believe that re-employment will crowd out the employment opportunities of young people, against re-employment. 2) The purpose of re-employment is to exert the residual heat, to reflect personal value, and a small part is to obtain economic compensation. 3) Lack of re-employment channels, mainly by the original unit or private enterprise hired, friends introduced. 4) Re-employment can regular daily work and rest time, which is conducive to physical and mental health. Most people recommend that people with better physical health should be re-employed. 5) The retirement age should be determined according to the type of work and physical health. The manual workers believe that the retirement age should maintain the status quo, and mental workers believe that a flexible retirement system should be implemented.

4. Discussion

4.1. Population ageing and re-employment status

It is estimated that by 2050, the elderly population in China will exceed 400 million, accounting for 34.1% of the total population, and the aging situation is grim. Delaying the retirement age and encouraging re-employment of retirees are beneficial to the development of health and resources for the elderly [5,6], and it is the key to the development of China's old age and the construction of the old-age system [2]. The results of this study show that the re-employment rate of retirees in Xi'an is 37%, which is higher than the employment rate of 50 years old in 2016, China [7].

4.2. Quality of life and social support

Research show that the quality of life of reemployed people is higher than that of those who are not reemployed. The reason is that re-employment can regularly control the daily working hours, reduce the time of solitude, and prevent mental illness induced by loneliness [8]. Secondly,
re-employed people will inevitably feel tension when working, and moderate physical, mental activity and tension can reduce the incidence of Alzheimer's disease and other physical diseases [9], and enhance the plasticity of the increasingly aging brain nerves [10], improve the quality of life. Re-employed people have higher social support than those who are not re-employed. Because re-employment can return to society, show themselves, maintain social and family status, and increase support sources. The study also found that social support is positively correlated with quality of life. The higher the level of social support, the higher the quality of life of retirees, and the good social support is the protective factor for the mental health of the elderly [11-12]. Re-employment can get more social support, which can alleviate the damage to the quality of life of the elderly caused by negative or depressed emotions.

4.3. The impact of re-employment on quality of life

The results of this study show that re-employment can improve the quality of life of retirees, especially mental health. Among the unemployed people, the physical health, mental health and social support of the employees are lower than those of the institutional staff and the civil servants, which may be related to the education, economic conditions and working environment of the latter two, and consistent with Hao Yu’s research results [13]. There are no significant differences in mental health among the three types of re-employed people, suggesting that reemployed people can regain social respect and recognition, so that psychological and spiritual comforts can be promoted, mental health can be promoted, and the burden of social pension can be alleviated.

4.4. Factors affecting re-employment

Re-employment willingness, caring for grandchildren, chronic diseases, quality of life and social support are the influencing factors of re-employment in this study, which are different from domestic research [14-15], possibly related to the research object, sample size and tools used and other factors. Interviews and research found that re-employment willingness is significantly related to re-employment. “Caring for grandchildren” and “Lack of re-employment channels” are the main reasons why most people have the willingness to re-employ and fail to re-employ. Because caring for grandchildren is good for the physical and mental health of the elderly [16], so broadening the way of re-employment is the current breakthrough to increase the rate of re-employment. Chronic disease has a long course of disease and poor treatment effect, which increases the psychological burden of patients and further affects their physical health [17]. Physical health is the basis of re-employment. To improve the re-employment rate, it is necessary to strengthen the prevention and treatment of chronic diseases. Based on Maslow's hierarchy of needs, retirees with good quality of life and good social support have a high rate of re-employment, perhaps because they want to pursue higher levels of demand—love and belonging, respect and self-realization. Although the age does not enter the regression equation, the older the age, the lower the re-employment rate may be related to increased age, increased chronic diseases, and decreased health status [18].

5. Conclusion

In summary, the quality of life of reemployed people after retirement is higher than that of those who are not reemployed, but there is a lack of re-employment. Recommendations: popular science reemployment concept; establish an employment information platform for the elderly; establish a flexible retirement system and flexible working hours system; people-oriented, focusing on the physical and mental health of retirees; retirees should use the heat, contribute to society, demonstrate self-worth, and reduce the burden of children and the society.

Acknowledgements

I am grateful to Xi'an Peihua College for funding this study (A comparative study of the physical and mental health status of reemployed and unemployed elderly people after retirement) PHKT18023.
References

[1] Yu An. Research on the Strategies and Effects of the Life Crafting after Retirement [D]. Huazhong Normal University, 2018.

[2] Zhao Yan. "The 13th Five-Year Plan for the Development of Old Ageing and the System of Providing for the Aged System" [J]. Chinese Civil Affairs, 2017 (21): 35-36.

[3] Ware J, Kosinski M, Keller SD. A 12 - Item Short - Form health survey: construction of scales and preliminary tests of reliability and validity [J]. Medical Care, 1996, 34(3): 220-233.

[4] Xian Shuiyuan. The Theoretical Basis and Research Application of "Social support revalued scale" [J]. Journal of Clinical Psychiatry, 1994 (02): 98-100.

[5] United Nations Department of Economic and Social Affairs. Population ageing and development 2012 [M]. New York: United Nations Department of Economic and Social Affairs, 2013: 1-2.

[6] Li Yangweijun, Feng Qiushi, Wang Zhenglian, et al. The impact of delayed retirement age on China's human capital [J]. Population Research, 2019, 43(01): 102-112.

[7] Department of Population and Employment Statistics, National Bureau of Statistics. China Labor Statistics Yearbook [Z]. Beijing: China Statistics Press, 2018.

[8] Hazer O, Boylu AA. The examination of the factors affecting the feeling of loneliness of the elderly [J]. Procedia - Social and Behavioral Sciences, 2010, 3(9): 2083-2089.

[9] Liu Yu, Zhang Zhongmei, Liu Yang. Early prevention and health status of patients with Alzheimer's disease [J]. Nursing Research, 2017, 31(01): 13-14.

[10] Park D C , Gérard N Bischof. The aging mind: Neuroplasticity in response to cognitive training [J]. Dialogues in Clinical Neuroscience, 2013.

[11] Cha KS, Lee HS. The effects of ego-resilience, social support, and depression on suicidal ideation among the elderly in South Korea [J]. Journal of Women & Aging, 2018, 30(5): 444-459.

[12] Xing Yanan, Zhou Hao, Chen Chao, et al. Research on the Influence of Social Support on Life Satisfaction of the Elderly [J/OL]. Chinese Health Education, 2019(06): 493-496.

[13] Hao Yan, Dong Huan, Song Yuanjuan, et al. Model Construction and Analysis of Related Factors of Community Seniors’ Quality of Life from the Perspective of Personality Theory [J/OL]. Chinese General Practice: 1-7 [2019-09-01]. http://kns.cnki.net/kcms/detail/13.1222.R.20190426.1637.046.html.

[14] Zheng Aiwen, Huang Zhibin. Analysis of the Factors Affecting the Reemployment of the Elderly Based on the Dual Perspectives of Individuals and Society [J]. Ningxia Social Sciences, 2018(05): 133-143.

[15] Xu Jie. The status quo and influencing factors of reemployment of the elderly in urban areas [D]. Jiangxi University of Finance and Economics, 2018.

[16] Han Baoqing, Wang Shengjin. Taking care of grandchildren's influence on the health of middle-aged and elderly people [J]. Population Research, 2019, 43(04): 85-96.

[17] Yuan Fei. Preliminary study on the psychological elasticity of the elderly with chronic diseases [D]. Chongqing Normal University, 2019.

[18] Zhou Yunan, Ran Jianchao, Deng Yali, et al. Analysis of the prevalence of chronic diseases and its influencing factors in residents of Hami City [J]. Modern Preventive Medicine, 2019, 46(06): 1096-1099+1104.