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## CORRELATIONS AMONG RELOCATION STRESS, HEALTH CONDITIONS, AND LIFE ADJUSTMENT OF THE ELDERLY IN LONG-TERM CARE INSTITUTIONS

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# Correlations among Relocation Stress, Health Conditions, and Life Adjustment of the Elderly in Long-Term Care Institutions

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## Abstract

The world is going through the process of population transition, where the aging of population structure has become the common social phenomenon globally. The major impact on nations and societies appears on medical resources flocking to the elderly that the demand for the elderly long-term care and support institutions is increasing. When elders move in the institutions, the change in living environment could easily have them encounter adjustment difficulty. Such adjustment problems often result in the elderly refusing to accept the life in the new environment or cause worsening health conditions and result in increasing incidence or mortality. Taking the elderly in long-term care institutions in Shanghai as the research objects, total 500 copies of questionnaire are distributed, and 367 valid copies are retrieved, with the retrieval rate 73%. The research results conclude that 1.relocation stress would affect health conditions, 2.relocation stress would affect life adjustment, and 3.health conditions reveal remarkably positive effects on life adjustment. According to the results, suggestions are proposed, expecting to assist the elderly, through the cooperation of care teams, in positively adjusting to the life in institutions, promote the perceived satisfaction with life in institutions, and enhance the health so as to reduce social health care and human care costs and, most importantly, offer new meaning and goal for the elderly life.

*Keywords*: long-term care institution, relocation stress, health conditions, life adjustment, elderly.

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## Introduction

Since the mid-20th century, the world is going through the population transition process, where the aging of population structure has become the common social phenomenon in the world. Advanced countries in Europe and America started to step into aging in the 19<sup>th</sup> century. The rapid increase in aged population increases the disabled elderly who require care. The major impact on nations and societies appears on medical resources flocking to the elderly that the demand for the elderly long-term care and support institutions is enhanced. With growing age, the elderly shows worsening physical conditions, and the life care becomes the problem for the elderly, the family, and the society. A lot of elders lose the daily life and instrumental daily life activity ability to increase the elderly independent life. Such elders might be relocated to nursing homes because there is no one to take care of their life or the family members are lack of caring skills and not able to bear the long-term care load. Relocating the elderly to long-term care institutions is generally considered as the situation of family members abandoning lonely elders; it is the negative stereotype. Nevertheless, along with the changes in social pattern and family structure as well as social aging and low birth rate, the care pattern has to be changed with the time to cope with care labor shortage in family and large increase in long-term care. Relocating the elderly to support institutions has become the annually increasing trend. When the elderly relocates to institutions, the change in living environment could easily have them encounter adjustment difficulty. Such adjustment problems could often result in the elderly refusing to accept the life in new environment or cause worsening health conditions and result in increasing incidence or mortality. There are several types of elderly relocation. Even though the elderly voluntarily or involuntarily faces relocation, it is regarded as major stress and potential harm in the elderly life. The relocation stress therefore could largely affect the elderly physiological, psychological, and social adjustment. Especially in the beginning of relocation to institutions when the elderly faces different people, affairs, and objects from the past environment, it is urgent and the most emphasized issue for care teams assisting the elderly in coping with stress and helping the adjustment. The effects resulted from relocation stress and adjustment cannot be ignored. Especially, along with increasing elders in institutions, more elders might encounter such problems. Research on relocation stress generated in the elderly relocation process and the factors in the institutional life adjustment is inadequate. The correlations among relocation stress, health conditions, and life adjustment of the elderly in long-term care institutions are therefore discussed in this study, expecting to assist the elderly, through the cooperation of care teams, in positively adjusting to the life in institutions, promoting the perceived life satisfaction, and enhancing the health in order to reduce social health care and human care costs as well as offer the elderly with new meaning and goal for the old age life.

### Literature review

Kim et al. (2017) stated that the elderly relocating to institutions was the adjustment process, from which the physiological, psychological, and social reaction would be derived. Negative effects were discovered in most discussions about the elderly physiological adjustment. In regard to psychological part, it was affected by multiple structures, such as health conditions, self-care function, activity function, willingness of relocation to institutions, and support systems. Lok, Lok, & Canbaz (2017) mentioned that, in addition to the effects on physiological and psychological emotions, social interpersonal relationship would be rebuilt and challenged when facing a brand-new and strange environment. Cohen-Mansfield (2018) indicated that the multiple changes after relocation and the physical function changes would reduce the overall adjustment of most elders. Jorgensen et al. (2018) stated that the elderly physiological, psychological, and social maladjustment caused by environmental changes in the process of relocating to long-term care institutions was called "relocation stress syndrome". The physiological, psychological, and social maladjustment resulted from environmental changes in the relocation process contained the characteristics of depraved appetite, sense of loss, insomnia, loneliness, passiveness, low self-esteem, hopelessness, or flinch. The following hypothesis is therefore proposed in this study.

H1: Relocation stress would affect health conditions.

Kwan, Leung, & Lai (2016) mentioned that the elderly, in the beginning of relocating to institutions, generally presented negative physiological reaction, such as passiveness, flinch, decreasing activity, increasing falls, changes in health habits, constipation, reducing health conditions, insomnia, and depraved appetite and, more seriously, might indirectly result in death. Kvæl, Bergland, & Telenius (2017) indicated that relocation would impact the elderly to show sense of loss, including the loss of living houses, money, and pets as well as the link with roles, relatives, and friends, and even feel the complete loss of self-esteem, ideal, role, and gender to easily appear anxiety, lack sense of security, loss, hopelessness, and even melancholy and reduce life satisfaction. Andrew & Meeks (2018) considered that, after relocating to institutions, the elderly, in face of strange people, affairs, and objects would lack sense of security and be difficult to actively contact and interact with people. When there was social communication disturbance, the emotional behavior in social interpersonal relationship appeared passiveness, dependence, flinch, mistrust, and even hostility, aggression, or uncooperativeness. Diener, Oishi, & Tay (2018) mentioned that the elderly relocation adjustment process, from initial physiological, psychological, and social changes to selfcoping and support from external environment, would be distinct. A person being impacted would show different stages after a period of time. With successful adjustment, the elderly learning to accept would become stable; on the contrary,

the elderly with adjustment disorder might stay in chaotic and confused stage. As a result, the following hypothesis is proposed in this study.

H2: Relocation stress would affect life adjustment.

Koo, Kim, & Kim (2016) regarded life satisfaction as the major life goal in old age, where the elderly being in the situation full of physiological, psychological, and social crises and danger could still maintain or recover the psychological well-being as the life goal. The elderly would encounter major events in the life, such as reducing income, worsening health, decreasing leisure activity, and changes in living arrangement to impact the life adjustment. Watkins, Walmsley, & Poling (2017) pointed out the notably positive correlations between the elderly subjective physiological health, daily life activity ability, psychological and social health self-evaluation, environmental factors, personal psychological factors and life adjustment. Cesetti, Vescovelli, and Ruini (2017) pointed out the significant correlation between health pattern and life adjustment, where interpersonal relationship in health pattern appeared the highest score, and social life adjustment in life adjustment revealed the highest score. van der Wolf et al. (2017) proposed the sequence of life adjustment as environmental adjustment, family adjustment, interpersonal adjustment, and belongingness. Female new immigrants appeared remarkable differences of age and time for staying in Taiwan in life adjustment; and, life adjustment revealed notable differences in physical and mental health, physiological health, and psychological health. Domenech-Abella et al. (2017) pointed out the significant interaction between life adjustment and physical and mental health that the higher perceived life adjustment would remarkably affect the research objects' physical and mental health. Accordingly, the following hypothesis is proposed in this study.

H3: Health conditions show significantly positive effects on life adjustment.

## Methodology

#### Measurement of research variable

*a)* Relocation stress. The evaluation of relocation stress syndrome in this study is referred to the relocation stress syndrome nursing diagnoses in NANDA nursing diagnosis reference manual proposed by Yen & Lin (2018), where 15 relocation stress signs are used for evaluating the elderly relocation stress to institutions.

b) Health conditions. Referring to Huang et al. (2018), health conditions contain two dimensions of "physical symptoms" and "psychological reaction" in this study: (1) Physical symptom: Referring to the elderly physiological and psychological health self-evaluation, flexible adjustment to environmental changes, and no disability or symptoms; (2) Psychological reaction: Referring to the elderly

being able to develop self-potential in the environmental change of retirement, establish close relationship with others, and pursue personal career.

*c)* Life adjustment. Referring to Jung, Park, & Kim (2018), three indicators are covered in life adjustment: (1) Self-evaluation: Exercise, health, habit, compliance rate; (2) Value perception: Self-worth and self-perception; (3) Activity participation: Subjective well-being, quality of life, including healthy physical function, social and economy, operation of psychological indicators, and family function.

#### Research object and sampling data

Aiming at long-term care institutions in Shanghai, the elderly in long-term care institutions in Shanghai are distributed 500 copies of questionnaire. Total 367 valid copies are retrieved, with the retrieval rate 73%. The retrieved questionnaire is analyzed the data with SPSS, and factor analysis, reliability analysis, regression analysis, and analysis of variance are used for testing hypotheses.

#### Analysis method

Analysis of variance is applied in this study to discuss the difference of relocation stress in health conditions and life adjustment, and regression analysis is further utilized for understanding the relationship between health conditions and life adjustment.

## **Results**

#### Reliability and validity analysis

With factor analysis, two factors are extracted from health conditions, including "physical symptoms" (eigenvalue=2.853,  $\alpha$ =0.84) and "psychological reaction" (eigenvalue=1.799,  $\alpha$ =0.83). The accumulated covariance explained achieves 76.512%.

With factor analysis, three factors of "self-evaluation" (eigenvalue=3.374,  $\alpha$ =0.88), "value perception" (eigenvalue=2.436,  $\alpha$ =0.86), and "activity participation" (eigenvalue=2.155,  $\alpha$ =0.81) are extracted from life adjustment. The accumulated covariance explained reaches 82.473%.

#### Effects of relocation stress on health conditions and life adjustment

Difference analysis of relocation stress in health conditions. According to analysis of variance, the difference of relocation stress in health conditions is discussed in this study. From Table 1, relocation stress shows significant difference in physical symptoms; low relocation stress (4.07) appears higher physical symptoms than high relocation stress (3.62). Relocation stress reveals remarkable

difference in psychological reaction; low relocation stress (4.15) appears higher psychological reaction than high relocation stress (3.78). H1 is therefore supported.

variable		F	Р	Scheffe posteriori test
relocation	physical symptoms	7.834	0.000*	Low (4.07) > high (3.62)
stress	psýchological reaction	9.166	0.000*	Low (4.15) >high (3.78)

Table 1. Difference analysis of relocation stress in health conditions

\* stands for p<0.05

Difference analysis of relocation stress in life adjustment. According to analysis of variance, the difference of relocation stress in life adjustment is discussed in this study. From Table 2, relocation stress presents notable difference in self-evaluation; low relocation stress (4.26) appears higher self-evaluation than high relocation stress (3.71). Relocation stress shows significant difference in value perception; low relocation stress (4.37) appears higher value perception than high relocation stress (3.59). Relocation stress reveals remarkable difference in activity participation; low relocation stress (3.98) appears higher activity participation than high relocation stress (3.46). In this case, H2 is supported.

Table 2. Difference analysis of relocation stress in life adjustment

variable		F	Р	Scheffe posteriori test		
relocation stress	self-evaluation	11.473	0.000*	Low (4.26) >high (3.71)		
	value perception	9.726	0.000*	Low (4.37) >high (3.59)		
	activity participation	13.227	0.000*	Low (3.98) >high (3.46)		

\* stands for p < 0.05

## Correlation analysis of health conditions and life adjustment

To test H3, the analysis result, Table 3, reveals notable effects of physical symptoms ( $\beta$ =2.241\*\*) and psychological reaction ( $\beta$ =2.163\*\*) on self-evaluation, significant effects of physical symptoms ( $\beta$ =2.315\*\*) and psychological reaction ( $\beta$ =2.426\*\*) on value perception, as well as remarkable effects of physical symptoms ( $\beta$ =1.886\*) and psychological reaction ( $\beta$ =1.924\*) on activity participation. Consequently, H3 is supported.

dependent variable $\rightarrow$	> life adjustment					
independent variable↓	self-evaluation		value perception		activity participation	
health conditions	β	Beta	β	Beta	β	Beta
physical symptoms	2.241**	0.213	2.315**	0.224	1.886*	0.177
psychological reaction	2.163**	0.205	2.426**	0.231	1.924*	0.184
F	23.186		35.177		28.447	
significance	0.000***		0.000***		0.000***	
R2	0.204		0.327		0.263	
adjusted R2	0.187		0.302		0.241	

Table 3. Analysis of health conditions and life adjustment

*Note:* \* stands for p < 0.05 and \*\* for p < 0.01. Data source: self-organized in this study

## Discussion

Whether the elderly relocates to long-term care institutions voluntarily or involuntarily, the changes in living environment and living habits have them face physiological, psychological, and social adjustment and challenge. Such stress often results in distinct adjustment problems of the elderly. The research result reveals the elderly life satisfaction, health, and life adjustment conditions and relationship in long-term care institutions that the elderly, in the life satisfaction self-evaluation, would review the health conditions of physiological, psychological, and social functions and the life adjustment to institutions. The elderly often feel lonely because there is no one to talk to in institutions and the encountered problems are not necessarily helped and solved. Institutional workers therefore have to build caring interpersonal relationship with the elderly and timely evaluate and deal with the elderly physiological, psychological, social health and life adjustment problems. In addition to providing comfortable living environment and good life care, the elderly needs assistance in familiarizing the environment in institutions and enhancing the autonomy so as to satisfy the needs and enhance the psychological adjustment and life adjustment.

#### Suggestions

Aiming at above research results, the following suggestions are proposed in this study.

1) The elderly, when relocating to a new environment, should regard the institutions as a big family with the start of a new life and treat the time for exploring and familiarizing the people, affairs, and objects in institutions as the run-in period. When encountering problems and difficulties, the elderly should be encouraged to make expression and communication to easily express the real needs. Moreover, they could be encouraged to share life experience and offered full participation in the decision process. The family members should understand that the elderly is psychologically fragile at the time and give more active concerns and company to pass the adjustment stage.

2) In order to assist the elderly in comprehensively adjusting to the new environment of the big family, institutional workers should apply the professional knowledge, good communication skills, and teamwork to enhance the elderly psychological adjustment and life adjustment. Institutional workers should build the communication between the elderly and the family, e.g. solving the elderly original life habit problems, rather than having the elderly follow the living rules regulated in institutions. Moreover, family members and relatives are encouraged to increase the visit frequency in order to satisfy the elderly psychological and emotional needs.

3) Institutions should spend more time on designing and planning leisure activity suitable for the elderly, where static and dynamic activities could be alternatively arranged, e.g. simple handcrafts, pot culture, aquarium, and reminiscence therapy as well as some dynamic festival activities. Such activities allow the elderly presenting achievement and belongingness and increase the social topics in the group life. In addition to enhance the stimulation in daily life, it could continuously develop the elderly tasks.

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