Factors affecting the level of social worker's fulfillment of work requirements when providing aged care services: Evidence in Vietnam

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CHRONICLE	ABSTRACT
	The study identified factors affecting the level of nursing home activity worker's requirements fulfillment in Vietnam. A quantitative survey was conducted amongst 336 elderly people in Hanoi, Hue, Da Nang, Ho Chi Minh City and Can Tho, Vietnam. Through the multiple linear regression, the study showed four factors that had significant effects on the level of social worker's requirements fulfillment, including (i) Self-belief in ability, (ii) Ability to create trust, (iii) Emotional expression, (iv) Relationship building skill with elderly residents. The results show that the skills to build relationships with the elderly are most appreciated. On this basis, the study offers some meaningful solutions to enhance the level of requirements fulfillment of social workers when providing support services to the elderly in Vietnam in the near future.

1. Introduction

The health care for the elderly has economic, political and social significance and deeply humanistic. The Vietnamese people always uphold the traditions of "when you eat a fruit, think of the man who planted the tree" and "respect the elderly" (Pham & Vu, 2019). The elderly people are those who have made great contributions to society, so it is necessary to have appropriate policies developing the healthcare system for the elderly. Our government has made policies, attention to the life and health of the elderly. The more the role of the State and social organizations in caring for the elderly is, the more health care centers and nursing homes becomes, the supplementary policies for the elderly are getting more and more attention and complementary. Thanks to the attention of the State and organizations, senior citizens, especially the helpless elderly people, have a better life and contribute their experiences to society. In addition, the Vietnamese government must take responsibility to ensuring the quality of life of the elderly, which is stipulated in the 2013 Constitution.

2. Literature Review

In the world and in Vietnam, research on issues related to the elderly has been interested by many scientists on different scales. What social experts are interested in are the elderly who have low income, deprivation, loneliness and illness (Malaiyandi Mahalakshmi, 2018; Okoye, 2017). In a study of Bernard Walker (2015) on the role of social work in supporting the elderly, he suggested that the elderly and those who care about them will understand that social work is a service that they can benefit

the society (Calitz & Adrie Roux, 2014; Joseph, 2015). Social workers have skills to assess and plan on aged care needs from a holistic perspective; provide professional leadership for teams working around the elderly and their families; and in helping to reduce stress in times of crisis, especially when relationships can be stressful (Collins, 2008; Taetske Calitz, 2014). The role of family in caring for the elderly is also changing day by day. In the past, families have a responsibility to take care of young children and the elderly, but now, with modernization and industrialization, the State and social organizations will take on the role of families in caring for the elderly(Gilmore, 2013). The rapidly aging population is caused by falling birth rates and rising lifespans. Meanwhile, per capita income is not high, social security systems do not meet the needs; the long-term health care system and the job supply system for the elderly are inadequate. Therefore, it is necessary to support the elderly, especially the elderly from poor and lonely households (Lien, 2018); (Chung, 2017).

3. Research Methods

3.1. Model research

The data is processed and analyzed by SPSS software, the average, percentage and frequency are used to analyze the factors affecting the level of social worker's requirements fulfillment. The impact factors were determined through the Binary Logistic regression model, Cronbach's Alpha to correlate analysis. The regression model is shown as follows:

$$Ln\ [p(x)/1\text{-}p(x)] = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + ... + \beta_n X_n + \varepsilon$$
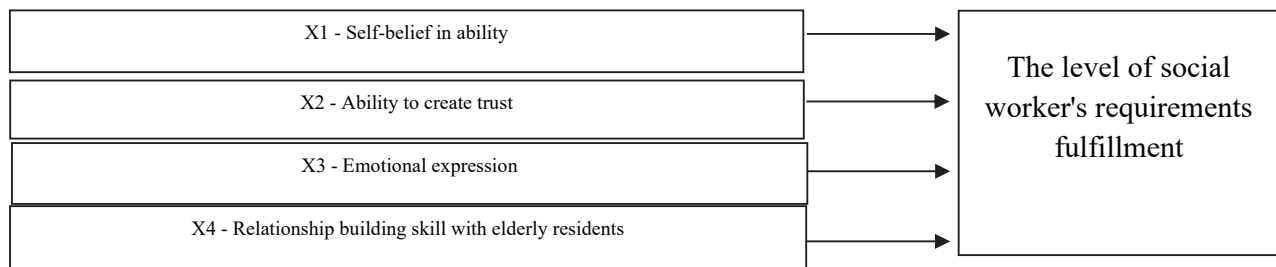
Inside that:

The dependent variable $p(x)$ is the level of social worker's requirements fulfillment, receiving values 0 and 1 (0 = influential and 1 = no effect).

β_0, to β_n are the regression coefficient to be estimated (β_0 is the intercept)

ε: is the error measuring the impact of variables not included in the model

X_1, X_2, X_3, ... X_n are the independent variables included in the model, explained in turn:

X1 - Self-belief in ability	
X2 - Ability to create trust	The level of social worker's requirements fulfillment
X3 - Emotional expression	
X4 - Relationship building skill with elderly residents	

3.2. Sampling method

To achieve the research purpose, 336 representative samples, corresponding to 336 the elderly living in nursing home in Ha Noi, Hue, Da Nang, Ho Chi Minh City, Can Tho, were interviewed. The objective distribution of the research in the practical survey is summarized in the following table:

Table 1
Sample characteristics

Sample characteristics		N	%
Gender	Male	197	58.6
	Female	139	41.4
Family circumstances	Homeless has no family	42	12,5
	Homeless used to have a family	159	47.3
	Having a spouse	51	15.2
	No more spouse	11	3.3
	Have descendants	71	21.1
	No descendants	2	0.6
	Total	**336**	100

(Source: The survey data of the study)

3.3. Data collection methods

(i) In-depth interview, 18 elderly people living in centers in Ha Noi, Hue, Da Nang, Ho Chi Minh city and Can Tho were interviewed to collect their comments on factors that influence the social worker's ability to meet job requirements when providing aged care services.
(ii)Use the Likert scale with 5 level: (level 5): Very true; (level 4): Yes; (level 3): Normal; (level 2): True few; (level 1): Not true.

(iii) After data collection, SPSS 22.0 was used to analyze the factors affectingthe level of social worker's requirements fulfillment. In particular, Cronbach's Alpha is used to evaluate the reliability of variables; exploratory factor analysis (EFA) is implemented to find the factors that strongly impact on the model, Viance variance inflation factor and Tolerance are used to test the validity of the research model.

4. Results and Discussion

4.1. Exploratory Factor Analysis (EFA)

The authors conducted exploratory factor analysis (EFA), Varimax analysis of 4 observed independent variables. As can be seen in Table 2, the result of the EFA is $0.5 < KMO = 0.801 < 1$. Sig. $= 0.001 < 0.05$, which means that all variables are related to each other.

Table 2
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,801
Bartlett's Test of Sphericity	Approx. Chi-Square	126,232
	Df	18
	Sig.	0,001

(Source: The survey data of the study)

Results of the KMO and Bartlett's Test show that the variables all reach values greater than 0.5, proving that the factor analysis of the research data is appropriate. Through the EFA model, some factors that have greatly influenced the level of social worker's requirements fulfillment are identified: Self-belief in ability, relationship building skill with elderly residents.

Table 3
Rotated Component Matrix

	Component			
	1	2	3	4
X1.1	0.887			
X1.4	0.856			
X1.5	0.832			
X1.3	0.814			
X1.2	0.898			
X2.4		0.766		
X2.1		0.743		
X2.2		0.723		
X2.3		0.688		
X3.3			0.758	
X3.2			0.724	
X3.1			0.687	
X3.4			0.655	
X4.4				0.882
X4.1				0.845
X4.3				0.817
X4.2				0.812
X4.5				0.773

(Source: The survey data of the study)

4.2. Testing Cronbach's Alpha

The factors that influence the level of social worker's requirements fulfillment in Vietnam are measured using Cronbach's Alpha with a coefficient of 0.798.

Table 4
Results of Cronbach's Alpha Testing of Attributes

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X1	12.24	2.532	0.414	0.772
X2	10.57	2.167	0.389	0.708
X3	11.34	2.624	0.392	0.713
X4	12.60	2.782	0.455	0.782

(Source: The survey data of the study)

On the other hand, the test results in Table 3 show that the attributes of the dependent variables have an Alpha coefficient of Cronbach's greater than 0.6 and smaller than the general Alpha coefficient of Cronbach; the correlation coefficients of all the attributes are greater than 0.3, so all the properties of the dependent variables are statistically significant (Truong, 2020).

4.3. Analysis of factors affecting the level of social worker's requirements fulfillment in Viet Nam

With the collected data, the authors used the Binary Logistic regression model to analyze the correlation between the independent and dependent variables. One of the necessary conditions for the analysis of the next steps of multivariate regression is that the independent variable must be correlated with the dependent variable, if not correlated; this type of independent variable is out of the regression analysis. Therefore, before performing a regression analysis, the authors checked Pearson's correlation coefficient to check the linear relationship between the independent and dependent variables.

Table 5
Correlative matrix between variables

Variable		X1	X2	X3	X4	p(x)
X1	Pearson Correlation	1	.405[**]	-.119[*]	-.026	-.002
	Sig. (2-tailed)		.000	.030	.638	.745
	N	336	336	336	336	336
X2	Pearson Correlation	.405[**]	1	-.178[**]	-.055	.010
	Sig. (2-tailed)	.000		.001	.311	.578
	N	336	336	336	336	336
X3	Pearson Correlation	-.119[*]	-.178[**]	1	-.094	.006
	Sig. (2-tailed)	.030	.001		.086	.909
	N	336	336	336	336	336
X4	Pearson Correlation	-.026	-.055	-.094	1	.002
	Sig. (2-tailed)	.638	.311	.086		.968
	N	336	336	336	336	336
p(x)	Pearson Correlation	.002	.010	.006	.002	1
	Sig. (2-tailed)	.745	.578	.909	.968	
	N	336	336	336	336	336

*(Statistical significance level: *p<0,1 **p<0,05 ***p<0,01)*
(Source: The survey data of the study)

Table 6
The result of the partial correlative appraisal of regression coefficient

	Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.388	.143		9.681	.000		
	X1	-.052	.022	-.142	-2.398	.017	.834	1.199
	X2	.011	.023	.029	.492	.003	.816	1.226
	X3	-.052	.020	-.142	-2.571	.001	.955	1.047
	X4	.006	.018	.019	.345	.000	.986	1.014

(Source: The survey data of the study)

The analysis results show that the VIF of 4 independent variables included in the model are much smaller than 10. Therefore, there is no phenomenon of collinearity in the model, so the model has statistical significance.

Table 7
The examination of the explanatory level of the model (Model Summary[b])

R	R Square	Adjusted R Square	Std. Error of the Estimate
.188[a]	.315	.024	.27349

(Source: The survey data of the study)

The result of MRA shows that adjusted R Square= 0.315, F-test (ANOVA) represents the significance level. = 0.000; therefore, the regression model is suitable. Table 8 presents the results for binary logistic regression as follows:

Table 8
Results for binary logistic regression model

Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)
X1	0.217	.193	4.627	1	.003	1.514
X2	0.122	.270	64.958	1	.005	8.794
X3	0.118	.187	1.473	1	.005	.797
X4	0.923	.173	.478	1	.000	1.127
Constant	1.524	1.572	33.710	1	.000	.000

(Statistical significance level: *p<0,1 **p<0,05 ***p<0,01)
Observations N=336 Prob> Chi^2 = 0.00 Loglikelihood = 316.546 Pseudo R^2 = 29.% *(Source: The survey data of the study)*

Table 8 presents the results of the logistic regression model with the dependent variable is the level of social worker's requirements fulfillment when supporting the elderly. The model has statistical significance with $p < 0.05$, $R^2 = 29.0\%$ shows the independent variables in the model can explain 29.0% of the change of the dependent variable according to the variation of the independent variable in the model. The variables are explained as follows:

With respect to self-belief in ability of social worker (X1), The probability of believing in their ability when facing difficulties in helping the elderly is 0.217 times higher than the other cases, the effects of other factors in the model is constant. The above difference is statistically significant $p < 0.05$ corresponding to 99% of confidence interval (OR = 0.217, 99%, CI = 1.55-6.72). Thus, the level of social worker's requirements fulfillment is influenced by self-belief in ability.

The variables, Ability to create trust (X2) and Emotional expression (X3), have correlation probabilities of (OR = 0.122, 99%, CI = 4.26-5.32); (OR = 0.118, 99%, CI = 2.68-1.54), respectively. The above difference is statistically significant with $p < 0.05$ with 99% confidence interval. Thus, the level of social worker's requirements fulfillment is influenced by ability to create trust and emotional expression.

With X4 variables, social workers can use easy-to-understand and simple language when interacting with elderly people, the probability of correlation is 0.923 times higher than the other case, if the effects of other factors in the model are unchanged. The above difference is statistically significant $p < 0.05$ corresponding to 99% of confidence interval (OR = 0.923, 99%, CI = 5.24-17.36). With this result, the logistic regression model is written as:

$$Ln [p(x)/1-p(x)] = 1.524 + 0.217 \times X_1 + 0.122 \times X_2 + 0.118 \times X_3 + 0.923 \times X_4$$

Table 9
Predict logistic model results on independent factors

Observation	Prediction		Right prediction rate
	The level of job requirements fulfillment		
	1.00	0.00	
The level of job requirements fulfillment 1.00	150	47	76.1
The level of job requirements fulfillment 0.00	28	111	79.9
Right prediction rate			77.7

(Source: The survey data of the study)

Table 9 gives true predictive value compared to reality. In this case, the model correctly predicts 197 cases with "influential" and incorrectly predicts 0 cases. Thus, the correct predictive result is $150/197 \times 100 = 76.1\%$. Similarly, the model correctly predicts 111 cases with "no effect" and incorrectly predicts 28 cases. The correct predictive result is $111/139 \times 100 = 79.9\%$. From this, we calculate the correct prediction rate of the whole model is $(150+111)/ (159+111+47+28) = 261/336 \times 100 = 77.7\%$.

5. Conclusions and recommendations

The results of the research have shown that the majority of services were only at an average level and did not meet the expectations of both the elderly and their families. Besides the professional element of the social workers was the main reason of service quality stems from the lack of State supportive policies for state-owned nursing home. Currently, the social work services only meet a small part of the needs of the elderly living in nursing homes. On this basis, we make a number of recommendations as follows: (i) Social workers need to improve their professional capacity and foster regular knowledge; (ii) Have a policy to recruit professional social workers. In fact, because of the inconsistency of current recruitment policy, candidates are well-trained but have not had the opportunity to work in nursing homes. Therefore, the Ministry of Labor, War Invalids and Social Welfare should have a public, transparent and objective recruitment policy.

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