

# Correlate of self-care and self-neglect among community-dwelling older adults

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## ABSTRACT

**Background:** The prevalence of self-neglect among the elderly is expected to rise with a rapid increase in the growth of the older population. However, self-neglect in the elderly and the factors related to it are not fully understood due to the limited research in the area, lack of consensus in the definition of the concept, and limited instrumentation. The purpose of this study was to investigate the relationship between selected socio-demographic factors on self-care and self-neglect among older persons living in the community.

**Materials and Methods:** A cross-sectional survey design with cluster sampling was adopted for the study. Data were gathered from 201 older persons aged 60 years and over in the state of Selangor, Malaysia, through face-to-face interviews in their homes with a team of trained enumerators. A new instrument was developed to measure self-neglect.

**Results:** The internal consistency of the new instrument showed a reliability of 0.90. A significant bivariate relationship was noted between self-care and self-neglect. The socio-demographic factors were also reported between self-care and self-neglect.

**Conclusions:** The new instrument of elder self-neglect (ESN) could be used to measure self-neglect in a community dwelling. The need to increase the self-care skills and the capacity of self-care among older adults is crucial in order to reduce self-neglect and enhance their well-being.

**Key words:** Cross-sectional survey, elder self-neglect, Malaysia, self-care agency

## INTRODUCTION

The growth of the aging population may lead to an increase in issues of the elderly and their challenges in the society.<sup>[1]</sup> Elder self-neglect (ESN), as a hidden and pervasive elder self-care issue, can lead to mortality and harm with a higher frequency than the other abuses<sup>[2-5]</sup> [Figure 1]. The prevalence of ESN and the cost of treatment and planning in advance are high in western countries. A 44% increase in ESN has been reported in the years 2000-2004,<sup>[2]</sup> With a fund of US\$ 8.5 million on ESN program. Approximately, 63% of Adult Protective Service (APS) cases in Texas were referred for ESN.<sup>[6]</sup> Many self-neglect cases remained unreported because our knowledge and experience in this area is limited.

Although the phenomenon is recognized in the US and some European countries, the phenomenon still remains

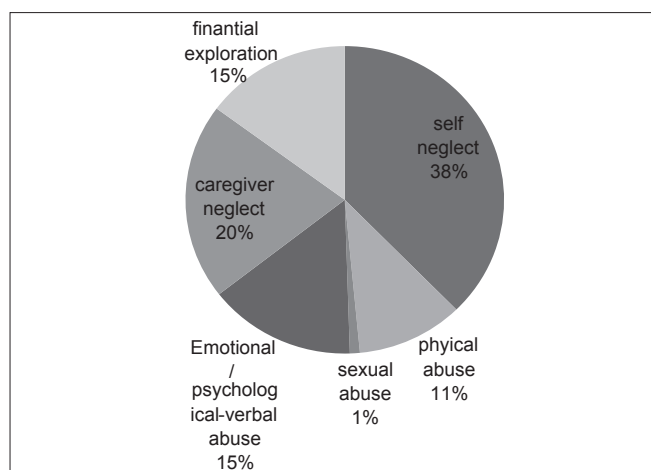
unclear.<sup>[7,8]</sup> In other developing countries, particularly in Malaysia, little is known about ESN. Without understanding the nature of self-neglect, it is difficult to differentiate between issues of self-care and self-neglect, especially in older persons who have some limitations with self-care. Unfortunately, there is still a lack of consensus in the definition of ESN,<sup>[9]</sup> the instrument, theory, and important risk factors associated with ESN. In Malaysia, the majority of elder abuse cases belong to the neglect abuse.<sup>[1]</sup>

Earlier studies have defined self-neglect in different ways. Self-neglect is defined as a kind of abuse.<sup>[10]</sup> Also, American Psychology Association (APA) defines it as an abnormal behavior, and based on APA, housing appearance, personal appearance, and health behaviors can be considered as the indicators of ESN.<sup>[11]</sup> It is also defined in social construct model as a theoretical framework.<sup>[12]</sup> However, evidence has shown that lack of self-care can lead to ESN. Self-care as the main concept can be associated with ESN.<sup>[13]</sup> Even Orem theory as a basic framework can be considered to justify ESN.<sup>[14]</sup> However, the association between self-care and ESN, as well as the effect of socio-demographic characteristics is still unclear in developing countries, especially in Malaysia. The results of a study in the US revealed that the black people receive more ESN than the whites,<sup>[15]</sup> and it is not clear if Malaysia as a multicultural country will show the same results about receiving ESN.

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**Figure 1:** Prevalence of self-neglect compared with other abuses adopted from (Teaster, 2006)

The purpose of the study is to investigate the association between self-neglect and self-care considering the socio-demographic variables. So, the existence of a link between self-neglect and self-care is hypothesized.

### Self-care and self-neglect

Reviewing the literature on the link between self-neglect and self-care, it is documented that a few studies have been recently investigating this issue. What sort of help can be provided for the people who are in earlier stages of self-neglect? What factors lie behind this phenomenon? Some experts claimed that coping problems could positively influence the operable self-care agency among the people with self-neglect.<sup>[16]</sup> Others introduced self-care as a theoretical framework for self-neglect.<sup>[14,17]</sup> Thus, Orem self-care theory can be used as the basis to justify ESN behavior, although it should pay attention to psychological theory to develop self-neglect theory. However, the current study, as a part of comprehensive study about “*prevalence and risk factors of self-neglect among elder Malaysian*,” was designed to find out the relationship between self-care and self-neglect.

In older adults who suffer from self-neglect, the capacity of self-care should be evaluated as a significant factor to decrease the severity of self-neglect as well. In order to make interventions, give treatment, and make decisions about ESN behavior, it is vital to consider self-care.<sup>[18]</sup> Moreover, the capacity of self-care is also needed to make a distinction between intentional and unintentional types of self-neglect<sup>[11]</sup> and to realize the willingness of the elderly.<sup>[19]</sup> Moreover, an important thing is that capacity in elderly should help them to make decisions about their daily activities. However, the patients with mental or physical impairment might not have adequate capacity to make decisions and practice self-care, which is a key ethical point to identify self-neglectors based on their personal needs, health, and safety.<sup>[20]</sup> So, for making any evaluation

of the capacity of the elderly, the researchers should rely on standardized data in both decisional and executive findings.<sup>[4]</sup> Also, through the assessment of capacity, the scholars should be able to focus on self-neglect concerns.<sup>[21]</sup>

### Orem self-care theory

Orem theory (1998), as a basic theory for self-neglect,<sup>[14]</sup> consists of four theories: Self-care theory, self-care agency, self-care deficits, and nursing theory, with an emphasis on the ability of people to provide self-care for themselves and others while interacting with the society and environment. Orem theory was originally developed and utilized for self-neglect behavior.<sup>[17]</sup> This theory states that people have the responsibility to provide care for themselves and even for their families. However, self-neglectors with any impairment receive lower levels of self-care agency. Self-neglect in this theory means inability to self-care and failure to do any associated task to prevent and control diseases, which influence one’s life and well-being. In this perspective, self-care agency is as an engine and capability to get self-care. For controlling elders’ issues, it is crucial to increase the capacity of self-care to make decisions.<sup>[20]</sup> Using Orem theory as a theoretical framework provides a suitable context for knowing more about self-neglect.<sup>[14]</sup>

### Socio-demographic characteristics

Studying the demography of the elderly population brings changes to their lives.<sup>[22]</sup> The most significant risk factors affecting self-neglect that are mentioned in previous research include age, gender, income, education, employment, and race.<sup>[23,24]</sup> The risk of ESN increases with age.<sup>[25-27]</sup> Self-neglect has been seen in all ages, but in the elderly, the phenomenon is a much more important issue than in the other age groups due to some geriatric limitations such as having more disability. Gender, race, lower income, medical condition, low social network support, and social engagement are associated with ESN as a multiple socio-demographic phenomenon.<sup>[8,25,27]</sup> Some researchers have shown that males received more ESN than females.<sup>[5,28]</sup> However, others found that women received more ESN than men.<sup>[29,30]</sup> These contrary results may be due to the studies conducted in different cultures or societies. So, this study paid specific attention to the effect of socio-demographic issues on ESN among multicultural elder Malaysians as well. The socio-demographic characteristics such as gender have also been linked with health status.<sup>[29]</sup>

## MATERIALS AND METHODS

### Location

The study was carried out in Selangor, the most highly populated state in Malaysia,<sup>[31]</sup> with approximately 4 million residents in 27 clusters, high levels of education, facilities, and income.

### Sampling techniques

In this cross-sectional survey, the link between self-care and self-neglect was examined among the elderly aged 60 years and above, who were living in the state of Selangor in Malaysia. The study was performed through face-to-face (F t F) structured interviews. Selangor has 27 clusters with six to seven districts in each state. In the present study, all 27 clusters were chosen with three randomly selected districts for each cluster. Following the procedures, the questionnaire was translated to Malay and back into English to reduce the participants' bias. The total number of aging population satisfying the research criteria was 201 elderly (120 women and 81 men) persons aged 60 and above, who were recruited through a structured interview questionnaire by trained enumerators. All participants were screened in terms of dementia (16 items) before being interviewed and filling the rest of questionnaire. So, the people with high dementia were not allowed to fill up the questionnaire (rejected rate = 10%). In this study, a score less than 27 indicated the risk of dementia.<sup>[32]</sup> A participant with score above 17 was accepted as a subject with moderate dementia and the rest of the participants were rejected. To achieve an acceptable reliability of the new instrument, which is a fundamental issue in psychological measurement,<sup>[33]</sup> a pilot study was performed. The exclusion criteria of this study were: Being less than 60 years of age, having high dementia, unable to understand the subject, not willing to attend the interview, and moving to another place. Chi-square test and Pearson's correlation were used to find the correlation between variables.

### Self-care agency scale (15-item)

The results of some studies illustrated that the 15-item self-care agency scale is a short and easy-to-run tool among individuals of a general population. In the current study, self-care agency (15-item) scale was utilized as a suitable instrument. This variable is measured using a 15-item self-care agency scale. The score ranges from 15 to 75. In the present study, self-care agency (15-item) scale was utilized with a one- to five-point Likert scale score as a suitable instrument for measuring the self-care and capacity of self-care. Eleven items were related to having the capacity of self-care and developing the capacity of self-care, and four other items were related to the lack of self-care.

### Self-neglect scale in elderly (ESN-16 items)

A new ESN instrument with 18 items, developed by the researcher under the supervisory committee, was used in this research. After factor analysis and removing two items (less than 5), high reliability and validity were achieved with 16 items (Cronbach's alpha = 90). ESN is scored on a one- to five-point Likert scale. This article is a part of the

original research which was funded by University Putra Malaysia under RUGS Project no: 06/02/2012-2078Ru and confirmed by university Ethics Committee.

### RESULTS

The correlation of ESN with socio-demographic characteristics is shown in Table 1. As observed in Table 1, there existed a correlation between age, level of education, and self-care category with self-neglect. Also, having primary level of education, belonging to the age group of 60–70 years, and having a lower level of self-care caused the recurring prevalence of self-neglect in the studied group in comparison with the other groups.

As shown in Table 2, the mean of self-neglect was approximately 34 with a standard deviation of 9.435.

**Table 1: Socio-demographic characteristics and correlation between variables in two groups of participants (having self-neglect and no self-neglect) (N=201)**

Variables/category	No self-neglect		Self-neglect		$\chi^2$	P value	
	n	%	n	%			
Age, years							
60	74	87	43.7	39	19.6	6.931	0.031**
75	79	36	18.1	25	12.6		
80	90	4	4.2	8	4.0		
Marital status							
Married	81			42		0.387	0.534
Not married	48			30			
Gender							
Female	79			41		0.354	0.552
Male	50			31			
Primary education							
No	67	33.3	26	12.9	4.656**	0.039**	
Yes	62	30.8	46	22.9			
Ethnicity							
Malay	78			39		0.754	0.385
Non-Malay	51			33			
Religion							
Muslim	80			40		0.802	0.228
Non-Muslim	49			32			
Income							
Less than 1000 RM	92			56		1.717	0.424
1000-2000 RM	23			8			
3000+RM	9			6			
Self-care							
Lower	89	44.3	37	18.4	6.122**	0.01**	
Upper	40	19.9	35	17.4			

RM means the unit of Malaysian currency (RM=Ringgit Malaysia), \*\* P < 0.05

The mean of self-care among participants was 57 with a standard deviation of 6.435.

The relationship between self-neglect, age, and income was investigated using Pearson's product-moment correlation coefficient as shown in Table 3.

As shown in Table 3, the strongest positive linear relationship was found between self-neglect and age ( $r = 0.237$ ,  $P = 0.05$ ) and level of education ( $r = 0.159$ ,  $P = 0.05$ ). The positive correlation coefficient indicates that as the score for self-neglect increases, so do the ratings for age and level of education. The correlation coefficient indicates that there was no significant correlation between self-neglect and income ( $r = -0.025$ ,  $P = 0.05$ ). Self-neglect also had a statistically significant association with the capacity of self-care ( $r = 0.197$ ,  $P = 0.05$ ), but no significant link was found between capacity and age, income, and level of education. However, there was a strong linear relationship between the level of education and other variables.

## DISCUSSION AND CONCLUSION

Self-neglect, as an increasingly important global issue of the elderly, leads to harm and mortality. However, the information about this hidden and multidimensional behavior and the factors associated with it is limited. The goal of this study was to determine the relationship between self-care, self-neglect, and the other socio-demographic variables. Self-neglect in elderly (ESN) is an important challenge to self-health and life independency. It is an underestimated issue in the majority of countries such as Malaysia due to the lack of sufficient data and suitable instruments to measure the phenomenon. In this research, a new instrument for measuring the experience

of self-neglect among the elderly was developed and applied. After a factor analysis, the total number of items of ESN equaled 16. Data were collected from the community dwelling after a pilot testing and after obtaining high validity and reliability of the instrument (Cronbach's alpha = 0.95).

The results of bivariate statistical analysis revealed that there was no significant difference between males and females in terms of severity of self-neglect. Despite the previous research that showed the prevalence of self-neglect in men more than women, or women more likely to get self-neglect, in the present study, no significant difference was found between men and women, and ESN.

Furthermore, a significant negative link between self-care and self-neglect was obtained. It means that any increase in self-care will lead to a decrease in self-neglect. The same program could be suggested for increasing the self-care skills and decreasing self-neglect in older persons. Thus, the capacity of self-care as a significant factor which is associated with self-neglect should be considered in any treatment, intervention, and program for making decisions. The results also confirmed the biological aspect of self-neglect as a lack of self-care. However, further research is needed to investigate the other psychosocial aspects of this complex negative behavior in both national and international levels.

## LIMITATIONS AND IMPLICATIONS

There were several limitations in this study that need to be acknowledged so that they are paid attention in future studies. First, the results are based on the report from Selangor state, and they might not contribute or are generalizable to the whole of Malaysian society and the other countries. Second, any study about countries like Malaysia with multiple cultures and racial differences should involve the investigation of the ethnicity aspects of the population as well. To reduce the effect of this limitation, the participants of this study were chosen from among all ethnicities of Malay, Chinese, and Indian. Third, the relationship between variables cannot be considered as the only cause of self-neglect, and causal investigation is needed to find out which other risk factors can have an influence on the severity of self-neglect. Despite these limitations, the present study provided a theoretical framework for future studies, based on medical perspective of the phenomenon to better justify the existence of ESN.

This study implies that a new version of self-neglect and a new perspective of the phenomenon will become one

**Table 2: Mean and standard deviation of the variables in the study**

Variables	n	Mean	Standard deviation
Self-care agency	201	56.5920	6.43527
Self-neglect	201	34.2239	9.25011

**Table 3: Correlation coefficient between self-neglect, income, and age**

Variable	Y	X1	X2	X3	X4	P
Y Self-neglect	1					<0.05
X1 Age	0.237**	1				
X2 Income	-0.025	-0.201**	1			
X3 Education	0.159*	-0.240**	-0.185**	1		
X4 Capacity of self-care	0.197**	0.000	0.110	0.016	1	

\*\*Correlation is significant at 0.01 level (2-tailed), \*Correlation is significant at 0.05 level (2-tailed)

of the major instruments of the issue of policy of the elderly which is at the initial phase. It is hoped that the information provided by the study will be of interest to the experts, policy makers, and gerontologists who are concerned about the geriatric issues. The results also provide the basis for further research on ESN and planning in advance, especially for the people in the earlier stages of ESN. Clinical treatment of ESN as well as health education for older persons and care givers are also suggested. Identification, implication, and clinical intervention to diagnose the deficits, and interpret and control the variables influencing ESN will be possible by considering the capacity of self-care among older adults. A comprehensive research on the other psychological risk factors such as self-efficacy, life satisfaction, depression, and personality is recommended as well. Besides, the findings suggest an earlier planning to increase the awareness, public health, and self-care skills in the elderly population.

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