



**UNIVERSITI PUTRA MALAYSIA**

***FACTORS ASSOCIATED WITH ATTITUDE TOWARDS THE ELDERLY  
AMONG MEDICAL AND NURSING STUDENTS IN A MALAYSIAN  
PUBLIC UNIVERSITY***

**PANMIAL PRISCILLA DAMULAK**

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AMONG MEDICAL AND NURSING STUDENTS IN A MALAYSIAN PUBLIC  
UNIVERSITY**

**By**

**PANMIAL PRISCILLA DAMULAK**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in  
Fulfilment of the Requirements for the Degree of Master of Science**

**January 2016**

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## DEDICATION

This thesis is dedicated to Barrister Victor Denlong Damulak, Dr. Jacob Ambrose Dawam, Barrister Jellat Jimmy Dielnye and Sandra Diyesun Garba, who never made it to old age. Your memories will last for centuries, you live on.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in  
fulfilment of the requirement for the Degree of Master of Science

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**January 2016**

**Chair : Halimatus Sakdiah Minhat, DrPH**  
**Faculty : Medicine and Health Sciences**

**Introduction:** The improvement in healthcare services and life expectancy, and also decrease in fertility rate, leads to an exponential increase in elderly population. The attitude of healthcare workers has to change with this increase as they will be encountering more aged clients in future. Research has shown that health care workers and undergraduate health care students have negatively preconceived ideas about the elderly leading to unfavourable attitude towards them.

**Aims and objectives:** To determine the factors associated with attitude towards the elderly among Medical and Nursing students in Universiti Putra Malaysia.

**Method:** A cross-sectional study was carried out using proportional stratified sampling, involving 456 medical students and 63 nursing students. The selection of the respondents was done by simple random sampling method using guided self-administered questionnaire distributed to year 1 to year 5 medical students and year 1 to year 3 nursing students from the Faculty of Medicine and Health Sciences, Universiti Putra Malaysia. The questionnaire was pre-tested and validated prior to its use and consisted of 6 sections; socio-demographic characteristics, modified Kogan's Attitude Towards Old People Scale (ATOP), modified Facts on Ageing Quiz 2 (FAQ2), modified filial responsibility questionnaire, experience of living with elderly questions as well as questions on exposure to geriatric module. Three level of analyses were conducted which are descriptive analysis, chi-square and logistic regression. The significance level was set at 0.05.

**Results:** A total of 519 respondents were involved in the study with 91.4% response rate. It was observed that 52.0% of the respondents had negative attitude towards the elderly, 70.3% had good knowledge of ageing, only 29.7% were currently living with the elderly. Meanwhile 74.0% have ever lived with

the elderly, 53.0% had low perceived filial responsibility, and 54.1% had no exposure to geriatric module. There were significant associations between attitude towards elderly people and year of study ( $X^2=12.699$ ,  $p= 0.013$ ), and also perceived filial responsibility  $X^2 =44.599$ ,  $p = 0.001$ ). However, only perceived filial responsibility was the significant predicting factor for attitude towards the elderly (AOR=2.957,  $p = 0.001$ , 95% CI=1.999-4.372), in which those with high perceived filial responsibility had 3 times higher odds of having positive attitude towards the elderly than those who had low perceived filial responsibility. However, the model only explains 12.4% of the variation in positive attitude towards the elderly (Nagelkerke's  $R^2 = 0.124$ )

**Conclusion:** The findings of the study revealed that slightly more than half of the medical and nursing students in Universiti Putra Malaysia have negative attitude towards the elderly and perceived filial responsibility is the only predictor of attitude towards the elderly. In view of the upsurge in elderly population and an important role play by the healthcare workers in the care of elderly people, it is suggested that the importance of filial responsibility be more emphasized and embedded in the geriatric curriculum of medical and nursing students at every stage of their training.

Keywords: attitude, knowledge of ageing, perceived filial responsibility, exposure to geriatric module, elderly

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Master Sains

**FAKTOR BERKAITAN DENGAN SIKAP TERHADAP ORANG TUA DALAM  
KALANGAN PELAJAR PERUBATAN DAN KEJURURAWATAN DI  
UNIVERSITI AWAM DI MALAYSIA**

Oleh

**PANMIAL PRISCILLA DAMULAK**

**Januari 2016**

**Pengerusi : Halimatus Sakdiah Minhat, DrPH**

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**Pengenalan:** Akibat penambahbaikan dalam perkhidmatan kesihatan dan jangka hayat dan juga penurunan kadar fertiliti, telah menyebabkan peningkatan dalam populasi orang tua. Sikap pekerja kesihatan harus berubah selaras dengan peningkatan eksponensial kerana mereka akan berurusan dengan lebih ramai pesakit tua pada masa hadapan. Kajian telah menunjukkan bahawa pekerja kesihatan, dan pelajar kesihatan mempunyai idea pratanggap yang negatif tentang orang tua hingga menyebabkan sikap yang tidak baik terhadap orang tua.

**Objektif:** Untuk menentukan faktor yang berkaitan dengan sikap terhadap orang tua dalam kalangan pelajar perubatan dan jurusan kejururawatan di Universiti Putra Malaysia.

**Kaedah Kajian:** Kajian keratan rentas telah dijalankan dengan menggunakan persampelan strata berkadaran, melibatkan 456 pelajar jurusan perubatan dan 63 pelajar jurusan kejururawatan. Kemudian, data pemilihan responden adalah menggunakan kaedah persampelan rawak mudah, iaitu menggunakan soal selidik terarah yang diedarkan kepada pelajar jurusan perubatan tahun 1 hingga tahun 5 dan pelajar jurusan kejururawatan tahun 1 hingga tahun 3 Fakulti Perubatan dan Sains Kesihatan, Universiti Putra Malaysia. Di samping itu, soalan soal selidik telah di jalankan pra ujian dan disahkan sebelum kajian dijalankan dan mengandungi ciri-ciri sosiodemografi, Skala Sikap Kogan terhadap Orang Tua yang diubah suai (ATOP), Fakta tentang Kuiz 2 Penuaan (FAQ2) yang diubah suai, soal selidik tanggungjawab filial yang diubah suai, pengalaman tinggal dengan orang tua yang berkenaan, di samping soalan tentang pendedahan terhadap modul geriatrik. ATOP diukur berdasarkan skala likert 1-5, iaitu “sangat tidak setuju” (0), “tidak setuju” (1), “tidak pasti” (2), “setuju” (3), “sangat setuju” (4), manakala FAQ2 diukur berdasarkan skala likert 1-3, iaitu “(0)-Tidak, (1) –Ya, (2)- Saya tidak tahu; tanggungjawab filial pula diukur berdasarkan skala likert 1-5, iaitu antara “sangat tidak setuju” (0), “tidak setuju”(1),” tidak pasti”(2),”setuju”(3), sangat setuju”(4), manakala

soalan tentang pengalaman tinggal dengan orang tua dan pendedahan pada modul geriatrik diukur menggunakan opsyen “Ya” atau “Tidak”. Tiga tahap analisis telah dijalankan, iaitu analisis deskriptif, khi kuasa dua dan regresi logistik. Tahap signifikan yang telah ditetapkan adalah pada 0.05.

**Hasil kajian :** Sebanyak 519 responden terlibat dalam kajian ini dengan 91.4% kadar respon. Kajian ini mendapati bahawa 52.0% responden mempunyai sikap yang negatif terhadap orang tua, pengetahuan yang baik tentang penuaan, iaitu (74.0%). 70.3% pada ketika ini tinggal dengan orang tua, manakala 74.0% pernah tinggal dengan orang tua, 53.0% mempunyai tanggungjawab filial tanggapan yang rendah, dan tidak mempunyai pendedahan pada modul geriatrik 281 (54.1%). Terdapat hubungan yang signifikan antara sikap terhadap orang tua dan tahun pengajian ( $X^2=12.699$ ,  $p = 0.013$ ), dan juga tanggungjawab filial tanggapan ( $X^2=44.599$ ,  $p = 0.001$ ). Walau bagaimanapun, hanya tanggungjawab filial tanggapan merupakan faktor ramalan yang signifikan bagi sikap terhadap orang tua (AOR= 2.957,  $p = 0.001$ , 95% CI= 1.999-4.372), responden yang mempunyai tanggungjawab filial tanggapan yang tinggi adalah tiga kali lebih tinggi mempunyai sikap positif terhadap orang tua berbanding dengan mereka yang mempunyai tanggungjawab filial tanggapan yang rendah. Walau bagaimanapun, model tersebut hanya menerangkan lebih kurang 12.5% variasi dari segi sikap positif terhadap orang tua sebagaimana yang diterangkan oleh model (Nagelkerke  $R^2 = 0.124$ )

**Kesimpulan:** Hasil kajian ini menunjukkan bahawa lebih daripada separuh pelajar perubatan dan bidang kejurawatan kesihatan di Universiti Putra Malaysia mempunyai sikap yang negatif terhadap orang tua dan tanggungjawab filial tanggapan merupakan prediktor utama bagi mengukur sikap terhadap orang tua. Oleh sebab itu, akibat kenaikan populasi orang tua yang mendadak, dan peranan penting yang dimainkan oleh pekerja kesihatan dalam penjagaan orang tua, kajian ini mencadangkan supaya tanggungjawab filial ini diberikan penekanan yang lebih dan harus diserapkan dalam kurikulum geriatrik bagi pelajar jurusan perubatan dan kejurawatan pada setiap tahap latihan mereka.

**Kata kunci:** sikap, pengetahuan tentang penuaan, tanggungjawab filial tanggapan, pendedahan pada geriatrik modul, orang tua



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I certify that a Thesis Examination Committee has met on 11 January 2016 to conduct the final examination of Panmial Priscilla Damulak on her thesis entitled "Factors Associated with Attitude Towards the Elderly among Medical and Nursing Students in a Malaysian Public University" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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## LIST OF ABBREVIATIONS

%	percentage
<	Less than
>	Greater than
≥	Greater than or equal to
≤	Less than or equal to
ATOP	Attitude towards old people
ASD	Ageing Semantic Differential
CI	Confidence interval
DESA	Department of Economic and Social Affairs
Df	Degree of freedom
IQR	Inter-quartile range
KOPS	Kogan old people scale
N	Total number
n	Frequency
OR	Odds ratio
UN	United Nations
UPM	Universiti Putra Malaysia
X <sup>2</sup>	Chisquare
WHO	World Health Organisation

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

As the world is trending towards an ageing population due to demographic transition, Malaysia is not an exception to this growing concern (Ambigga, Ramli, Suthahar, Tauhid, Clearihan, & Browning, 2011). Its rapid socio-economic expansion over the past two decades, coupled with longer life expectancy as a result of improvements in health care and social services, have greatly contributed to the rise in its elderly population (Husna, Robaiyah & Tanti, 2009; Samad & Mansor, 2012). People aged 60 and over, numbered around 600 million worldwide in 2000, and these figures are expected to reach 1.2 billion by 2025 and 2 billion by 2050. Of these, about two thirds currently live in the developing world, and by 2025 it is estimated that this figure will rise to 75% (WHO, 2005; Alsenany, 2009). In Malaysia, the indicators of the 2010 census submit a transition of age structure suggestive of ageing population. The proportion of the population of Malaysia below the age of fifteen years decreased from 33.3% in the year 2000 to 27.6% in 2010 meanwhile, the population of those aged 65 years and above rose to 5.1% from 3.9% (Department of statistics Malaysia 2010). This increase in older population has considerable implications both for older people themselves and for services generally, as this will lead to changing demands on health care systems in both developing and developed countries (Alsenany, 2009). The ageing population has a direct effect on health care systems as it is presented with higher incidence of chronic diseases that often require long-term care (Lambrinou, 2009). The upsurge of older population in the society has great impact on aspects of social life, health and social security, education and environmental concerns, employment and family life, cultural activities and legal areas (Unalan, Soyuer & Elmali, 2012). Therefore, it is crucial that all healthcare providers develop their knowledge, attitudes and skills relating to geriatrics as they tend to encounter elderly patients more frequently (Wang et al, 2009). In Malaysia, it has been reported that there is a privation of geriatricians who can bolster clinical practice as well as train upcoming health care professionals (Poi, Forsyth & Chan, 2004).

There have been a lot of researches carried out investigating the attitude towards the elderly among health care related students all over the world in response to the emerging 'ageing population' and demographic transition (Hweidi and Al-Obeisat, 2006; Lambrinou, Sourtzi, Kalokerinou & Lemonidou, 2009). It is important to note that the medical and nursing students will become the future doctors and nurses who will be mainly dealing with the health care of the elderly population. Hence, knowing their attitude towards the elderly is necessary, in order to prepare them for the various health implications and social problems related to the care of the elderly population. Several studies on attitude towards the elderly among healthcare related students have been carried out and are reported to be either positive or negative. A study among first year medical students in Singapore revealed positive attitude towards the

elderly (Chua et al, 2008). In Turkey, medical students in years one, four, and six opined that education changed their knowledge, but their own experience had more effect on attitude (Sheikh, Mathew, Rafique, Suraweera, & Khan, 2013).

Findings of previous studies by other researchers in western countries concerning knowledge of ageing and attitudes toward the older people have been worrying and alarming (Soderhamn et al., 2001; Alsenany, 2009). It was pointed out that student nurses have developed stereotypes and misconceptions about older people and thereby exhibiting minimal interest in working at nursing homes (Alsenany, 2009). Similarly, a study in Miami, Florida revealed that medical students had negative misconceptions about the elderly until they were exposed to a geriatric course to improve their knowledge base (Zuilen, Rubert, Silverman, Lewis, 2001).

Attitudes are dislikes and likes and feelings for and/or against something or someone. They are important because they determine the response of a person or people towards something or somebody. All attitudes include beliefs, but not all beliefs are attitudes. When specific attitudes are organized into a tiered structure, they comprise value systems (Serem, 2011). In this respect, the attitudes towards the elderly by the students determine the way they value them and hence how they relate to them. Once underlying factors causing negative attitudes towards something or somebody are disinterred, addressed or aloof, the negative attitude is most likely changed to positive attitude (Serem, 2011). Several factors such as culture, age, gender, education, experience and previous relationships with older people, have been studied and said to influence attitudes toward older people (Hweidi and Al-Obeisat, 2006; Lambrinou, Sourtzi, Kalokerinou & Lemonidou, 2009).

## **1.2 Problem Statement**

With improved life expectancy and low fertility rate globally, the population of the elderly tends to increase leading to an ageing population (Husna et al., 2009); the world population of people 60 years and above is 650 million, and conjectured to reach 2 billion by the year 2050 (Sheik et al, 2013). According to Sim (2001), by the year 2020, Malaysia will experience a 9.5% increase in the population of people above 60 years of age. The senior citizens of Malaysia are growing at a faster rate than the total population and will more than double in numbers from the current 1.4 million to 3.4 million in 2020 (Taha & Mat, 2003).

In response to the exponential increase in the elderly population, the health care delivery system is expected to prepare for the ageing population which will include improvements in quality of health care towards the elderly and also training of more specialists to cater for the elderly. However, it is also pertinent that all healthcare practitioners should ideally improve their knowledge, attitudes and skills with regard to the management of elderly patients, as they will increasingly encounter elderly patients (Chua, Tan, Merchant & Soiza, 2008).

According to Poi et al (2004), as the older population ages in Malaysia, they will form a larger proportion of the hospital patients, as such, geriatric medicine needs to

be firmly embedded in undergraduate and postgraduate curricula in order to empower the present and future generations of health care professionals develop skills on assessment and management of the elderly (Poi et al, 2004). Therefore, the quality of the care being delivered to the elderly should be an important aspect of medical training (Cankurtaran, Halil, Zekeriya, Dagli, Balam Yavuz, Karaca, & Ariogul, 2006).

In present day, the society tends to exclude the elderly; they are considered incompetent and are denied any responsibilities (Gonzalez & Carmen, 2008). Attitude towards old age is rather negative, particularly among the young ones who regard old people as pessimistic, conservative, and petulant thus using disparaging terms on them (Gonzalez & Carmen, 2008). Some of the future physicians possess negative pre-conceived attitudes and ideas about the care of the elderly, because they believe that elderly patients' conditions are chronic and terminal. Regrettably, these attitudes may affect their eventual management of patients, and therefore should be addressed to help generate more "elderly-friendly" physicians (Chua et al, 2008). There are several studies that revealed the negative attitude of medical and nursing students towards the elderly, and this negative attitude is influenced by some factors which shall be discussed subsequently. A study conducted in Malaysia among nursing students revealed that students begin school with negative misconception and ideas about the elderly (Wan & Poi, 1997). Similarly a study by Cankurtaran et al. (2006) in Turkey among medical students of different classes showed that there were no significant changes from first year to last year, but in the fourth year there was significant negative attitude. The general positive attitude is a reflection of the attitude of the Turkish society. There was no clear reason why the fourth year students exhibited negative attitude but it could be attributed to experiences and knowledge they have in medical school. According to a recent study in United Arab Emirates (UAE), support groups for older people suggest that, the elderly are treated unacceptably, insensitively, and disrespectfully by health care staff. Moreover, the quality of care for older adults may depend on the attitude of the caregivers, and health professionals worldwide who have a negative attitude toward them and hold more ageist attitudes than the general population (Sheikh et al., 2013).

It is important to note that the attitude of medical and nursing students towards the elderly will predict if they will pick an interest in geriatrics or not. The ageing population will need not only trained professionals in the field, but those who will deliver their duties with passion and zeal. It is also pertinent to note that whatever kind of attitude exhibited by the young adult, especially students, whether positive or negative, is associated with some factors, and these factors are responsible for their behaviour as well. A number of factors like environment, socio-demographic factors, culture, family background, knowledge of ageing, exposure to geriatric modules and level of education among so many can affect the behaviour of an individual towards an elderly person (Lambrinou et al., 2009). Several studies have shown that medical and nursing students have little or no interest in geriatrics which is a thing of concern because medical and nursing students tend to specialise in other fields like paediatrics and obstetrics and gynaecology. A study by Bernardini Zambrini et al (2008) in university of Salamanca among students of health care related studies showed that medical and nursing students showed less positive attitude towards the

elderly compared to their psychology and pharmacy counterparts who showed high interests in choosing geriatrics as specialty. Another issue is that gender tends to affect the willingness of medical and nursing students in picking an interest in geriatrics. Several studies have shown that males show less positive attitude towards the elderly and seldom have interest in specializing in geriatrics. A study by Soderhamn et al. (2001) among nursing students and registered nurses in Sweden revealed that male gender was significant factor in showing less favourable feelings towards the aged. However, findings of previous studies by other researchers in western countries concerning knowledge of ageing and attitudes toward the older people and nurses' demographic characteristics have been worrying and alarming (Soderhamn et al., 2001; Alsenany 2009). Although beliefs and attitude towards the elderly differ by culture, and some societies associate negative ideologies to ageing for instance worthlessness and weakness, traditional societies uphold the concept of elder respect and place them on a higher social status (Turgay, Sahin, Aykar, Sari, Badir & Ozer, 2015).

In Malaysia, research pertaining to factors associated with attitude towards the elderly is not sufficient and therefore needs urgent attention in order to prepare them for the challenges of the upcoming ageing population. A similar study has been carried out in Malaysia, by Tien, Alagappar & David. (2007) on “The Attitude of Filial Responsibility of Malaysian Students towards their Elderly Parents”, and it is reassuring to know that Malaysian students still care for their parents and have a positive attitude towards the elderly in their society. However, it will be very accomplishing to study the factors associated with attitude of medical and nursing students towards the elderly in Malaysia, in preparation for the emerging ageing population. Thus, it is necessary to study the attitude and factors associated with the attitude of medical and nursing students, who will be charged with the responsibility of caring for the elderly in few years to come, as this will predict their willingness to work with the elderly in future.

### **1.3 Research Questions**

This study aims at identifying factors that could possibly affect the attitude of Medical and Nursing students (who will be the future doctors and nurses in years to come) towards the elderly population. The increasing number of the elderly people may pose a great challenge in the health care systems which may be worsen by the undesirable attitude of the healthcare workers towards the elderly. By knowing the pattern of attitude of the medical and nursing students, and the factors influencing their attitude, necessary actions can be taken to prevent unnecessary negative attitudes that may impair the delivery of quality health care system to the elderly people.

- a. What is the attitude towards the elderly among Medical and Nursing students in a Malaysian public university?
- b. What is the association between the socio-demographic factors (age, gender, religion, ethnicity, year of study, marital status), and the attitude towards the elderly among Medical and Nursing students in a Malaysian public university?

- c. What is the association between the factors (experience living with the elderly, perceived filial responsibility, knowledge of ageing, and exposure to geriatric module) and the attitude towards the elderly among Medical and Nursing students in a Malaysian public university?
- d. What is the predictive model for attitude towards the elderly among Medical and Nursing students ?

#### **1.4 Significance of Study**

The rise in ageing population is a major challenge to the health sector globally, advancement in age is accompanied by decline in health status, chronic ailments and degenerative disorders which will lead to an increase in demand for health resources by the aged (Chua et al., 2008; Wang et al., 2009). It is in this light that this study is carried out in order to find out the attitude towards the elderly among the prospective healthcare providers including the medical and nursing students, who will be the doctors and nurses to care for this elderly population in future. Although several studies have been carried out in the past to determine the attitude of medical and nursing students towards the elderly, and most studies reveal some level of positive attitudes towards the elderly, some have invariably shown negative attitudes and lack of willingness to work with the aged in future. It is important to note that the study to determine the factors associated with these 'positive' or 'negative' attitudes have not been carried out in Malaysia. Little is known about the attitude of medical and nursing students towards the elderly in Malaysia. It is crucial to study the attitude of the people whom the lives of the future population will be entrusted. However, it will be very accomplishing to study factors associated with the attitude of medical and nursing students towards the elderly in Malaysia, in preparation for the emerging ageing population. The benefits of this study include:

- Examining the attitude of medical and nursing students in UPM towards the elderly which will articulate their knowledge, willingness and intention to work with the elderly. Attitudes of students towards elderly affect their decisions of working with them as well as their care behaviours (Cortney et al., 2000). Attempts to provide high-quality elder care must take into consideration both the attitudes of the nurses toward the elderly and their knowledge of the aging process (Kizilci et al 2013). Knowledge and attitude may affect nurses' expectations of their working lives and influence the way in which they care for the elderly. Research on this relationship indicates that adequate education and preparation in meeting the needs of the aging population are necessary to develop the positive attitudes and approaches needed for the provision of quality care (Zakari, 2005). Gaps in this knowledge can lead to elder abuse, a decrease in the quality of life for the elderly and increased anxiety and tension for the nurse (Serem, 2011).
- The findings can assist the local authorities and respective agencies in the improvement of the existing elderly-related policy in order to deliver a more effective and elderly-friendly health care services for the senior citizens. Also, the study will provide policy makers both government and NGOs

information about the interaction between the young and the old therefore improve on the policies that will bridge the gap and solve the underlying issue. According to Kyu-Taik Sung (2004), although older persons need food, shelter, healthcare and security, they have another cardinal need which is the need to be treated with respect and care. This study will enable government involve the senior citizens of this country in the social development and other affairs of the country so that they can locate their seat of relevance in the society.

- The study can provide a new knowledge related to attitude of the younger population towards the elderly; their knowledge of aging, willingness, and intention to work with the elderly can provide valuable conceptual insight and empirical information for designing effective educational and recruitment programs in elder care. It is important to determine the influence of gerontology components and curriculum on student's attitudes and knowledge of ageing (Lambrinou et al., 2009). Therefore, the study will reveal the importance of geriatrics in nursing and medical schools.

## **1.5 Objectives**

For the purpose of this study, there would be general objectives and specific objectives.

### **1.5.1 General Objective**

To determine the associated factors related with attitude towards the elderly among medical and nursing students in a Malaysian public university.

### **1.5.2 Specific Objectives**

1. To determine the distribution of the respondents according to;
  - i. Attitude towards the elderly
  - ii. Socio-demographic characteristics (age, gender, year of study, ethnicity, religion and marital status)
  - iii. Knowledge of ageing
  - iv. Experience living with the elderly
  - v. Exposure to geriatric module
  - vi. Perceived Filial responsibility
2. To determine the associations between the attitude towards the elderly among Medical and Nursing students in a Malaysian public university and;
  - i. Socio-demographic characteristics (age, gender, year of study, ethnicity, religion, marital status)
  - ii. Knowledge of ageing
  - iii. Experience living with the elderly
  - iv. Exposure to geriatric modules
  - v. Perceived Filial responsibility



3. To determine the predicting factors associated with the attitude towards the elderly among Medical and Nursing students in a Malaysian public university.

### **1.6 Study Hypothesis**

1. There is significant association between the socio-demographic characteristics (age, gender, year of study, ethnicity, religion, marital status) and the attitude towards the elderly among Medical and Nursing students in a Malaysian public university.
2. There is significant association between the knowledge of ageing and attitude towards the elderly among Medical and Nursing students in a Malaysian public university.
3. There is significant association between experience living with the elderly and attitude towards the elderly among Medical and Nursing students in a Malaysian public university.
4. There is significant association between exposure to geriatric modules and attitude towards the elderly among Medical and Nursing students in a Malaysian public university.
5. There is significant association between perceived filial responsibility and attitude towards the elderly among Medical and Nursing students in a Malaysian public university.

## BIBLIOGRAPHY

- Abreu, M., & Caldevilla, N. (2015). Attitudes toward aging in Portuguese nursing students. *Procedia-Social and Behavioral Sciences*, 171, 961-967.
- Abdulrahman O. Musaiger , Reshma D'Souza & Khaldoon Al-Roomi (2013) Perception of Aging and Ageism among Women in Qatar, *Journal of Women & Aging*, 25:3, 273-280, DOI:10.1080/08952841.2013.791602
- Acierno, R., Hernandez, M. A., Amstadter, A. B., Resnick, H. S., Steve, K., Muzzy, W., & Kilpatrick, D. G. (2010). Prevalence and correlates of emotional, physical, sexual, and financial abuse and potential neglect in the United States: The National Elder Mistreatment Study. *American Journal of Public Health*, 100(2), 292–297. doi:AJPH2009163089[pii]102105/AJPH.2009163089
- Adelman, R. D., Capello, C. F., LoFaso, V., Greene, M. G., Konopase, K. L., & Marzok, P. M. (2007). Intro to the older patient: A first hand exposure to geriatrics for medical students. *Journal of the American Geriatrics Society*, 55(9), 1445–1450.
- Adkins, D. M., Mayhew, S. L., Gavaza, P., & Rahman, S. (2012). Pharmacy students' attitudes toward geriatric nursing home patients. *American journal of pharmaceutical education*, 76(5).
- Ahmad, A. (2009). Gender differences and trends in the participation of Malaysians in education: Implications on employment outcomes. *Journal of International Management Studies*, 4(2), 65-74.
- Alford CL, Miles T, Palmer R, Espino D (2001). An introduction to geriatrics for first-year medical students. *J Am Geriatr Soc* ;49:782-7.
- Alsenany, S. (2007). Student nurses' attitudes and knowledge towards the care of older people in Saudi Arabia. *British Society of Gerontology*.
- Alsenany, S. (2009). An exploration of the attitudes, knowledge, willingness and future intentions to work with older people among Saudi nursing students in baccalaureate nursing schools in Saudi Arabia (Doctoral dissertation, University of Sheffield).
- Alshahri,M.(2002). Culturally sensitive caring for Saudi patients. *Journal of Transcultural Nursing*, 13, 133.
- Allan B. de Guzman , Jeremy C. Lacorte , Andrea Keith G. Lacsamana , Mark Lawrence M. Lagac , Jobel M. Laguador , Jazminn Jessica R. Lapid & Lyndcie Miriele C. Lee (2012) Who Says there is No Life After Abandonment? A Grounded Theory on the Coping of Abandoned Filipino Elderly in Nursing Homes, *Educational Gerontology*, 38:12, 890-901, DOI: 10.1080/03601277.2012.661329

- Ambigga, K. S., Ramli, A. S., Suthahar, A., Tauhid, N., Clearihan, L., & Browning, C. (2011). Bridging the gap in ageing: Translating policies into practice in Malaysian Primary Care. *Asia Pac Fam Med*, 10(2).
- Aubrey, D. & Grey, D. (2007). Life span extension research and public debate: Societal considerations. *Studies in ethics, Law, and Technology I*. Available: <http://www.mfoundation.org>
- Augustine, J., Shah, A., Makadia, N., Shah, A., & Lee, J. K. (2014). Knowledge and attitudes regarding geriatric care and training among student pharmacists. *Currents in Pharmacy Teaching and Learning*, 6(2), 226-232.
- Ayoğlu, F. N., Kulakçı, H., Ayyıldız, T. K., Aslan, G. K., & Veren, F. (2013). Attitudes of Turkish nursing and medical students toward elderly people. *Journal of Transcultural Nursing*, 1043659613515527.
- Barrett, A.E. & Pai, M. (2008) Sketches in cyberspace: using student drawings of elders in an online social gerontology course. *Gerontology & Geriatrics Education*, 29(1), 84-103.
- Berbard, M., McAuley, W., Belzar, J. A., & Neal, K. S. (2003). An evaluation of low-intensity intervention to introduce medical students to healthy older people. *Journal of the American Geriatrics Society*, 51(3), 419–423.
- Bleijenberg, N. (2012). Dutch nursing students' knowledge and attitudes towards older people - A longitudinal cohort study. *Journal of Nursing Education and Practice*, 2(2), 1–8. doi:10.5430/jnep.v2n2p1
- Bloom, D. E., Canning, D., & Fink, G. (2008). Population Aging and Economic Growth. *Program on the global demography of aging Working Paper Series*, (31).
- Bonnie, R. J., & Wallace, R. B. (2003). Elder mistreatment: Abuse, neglect and exploitation in an aging America (1st ed.). Washington, DC: *The National Academy Press*.
- Booth, L, Kada, S. (2014). Student radiographer's attitudes toward the older patient-An intervention study. *Radiography* 21 (1) 160-164
- Bryan, A., & Ruch, G. (2013). Psychotherapeutic Approaches in Health , Welfare and the Community, (February) *Journal of Social Work Practice* :37–41. doi:10.1080/02650533.2013.798148
- Butler, F. R., & Baghi, H. (2008). Using the internet to facilitate positive attitudes of college students toward aging and working with older adults. *Journal of Intergenerational Relationships*, 6(2), 175-189.
- Bursac, Z., Gauss, C. H., Williams, D. K., & Hosmer, D. W. (2008). Source Code for Biology and Medicine. *Source code for biology and medicine*, 3, 17.

- Cacioppo, J. T., Fowler, J. H., & Christakis, N. A. (2009). Alone in the crowd: the structure and spread of loneliness in a large social network. *Journal of personality and social psychology*, 97(6), 977.
- Callahan, S. E. (2011). Knowledge and attitudes about aging: A study of undergraduate students at the university of north carolina at charlotte. *Retrieved from <http://gerontology.uncc.edu/sites/gerontology.uncc.edu/files/media/abstracts/Knowledge%20and%20Attitudes>*, 20..
- Cankurtaran, M., Halil, M., Ulger, Z., Dagli, N., Yavuz, B. B., Karaca, B., & Ariogul, S. (2006). Influence of medical education on students' attitudes towards the elderly. *Journal of the national medical association*, 98(9), 1518.
- Cantor, M., and M. Brennan., (2000). *Social Care of the Elderly: The Effects of Ethnicity, Class and Culture*. New York: Springer Publishing Company.
- Cawthorne, A., & Americans, A. (2008). *Elderly poverty: The challenge before us*. Washington, DC: Center for American Progress. Retrieved October, 18, 2011.
- Celik, S. S., Kapucu, S., Tuna, Z., & Akkus, Y. (2010). Views and attitudes of nursing students towards ageing and older patients. *Australian Journal of Advanced Nursing, The*, 27(4), 24.
- Chappell, N.L. & Funk, L.M. (2011). *Filial Responsibility: Does it Matter for Caregiving Behaviours? Ageing and Society, forthcoming*.
- Cheah, C. S., Özdemir, S. B., & Leung, C. Y. (2012). Predicting the filial behaviors of Chinese–Malaysian adolescents from perceived parental investments, filial emotions, and parental warmth and support. *Journal of adolescence*, 35(3), 628-637.
- Chen, D., & Hosoe, Y. (2011). Attitudes and sense of responsibility of University students toward their aging parents in Japan and Korea. *Asian Social Science*, 7(2), 60–63.
- Choi, S., (2001) “Changing attitudes to filial piety in Asian countries.” Paper presented at 17th World Congress of International Association of Gerontology, Vancouver, Canada, July 1-6.
- Chow, N., & Bai, X. (2011). Modernization and its impact on Chinese older people’s perception of their own image and status. *International Social Work*, 54, 800-815.
- Chua, M. P., Tan, C. H., Merchant, R., & Soiza, R. L. (2008). Attitudes of first-year medical students in Singapore towards older people and willingness to consider a career in geriatric medicine. *Annals Academy of Medicine Singapore*, 37(11), 947.
- Chuang, Y.-H. and Huang, H.-T. (2007), Nurses’ feelings and thoughts about using physical restraints on hospitalized older patients. *Journal of Clinical Nursing*, 16: 486–494. doi: 10.1111/j.1365-2702.2006.01563.x

- Cheung, C. K., & Kwan, A. Y. H. (2009). The erosion of filial piety by modernization in Chinese cities. *Aging and Society*, 29, 179-198.
- Dacey, M. L., Vail, M., & Tataronis, G. (2007). Physician Assistant Students' Knowledge and Attitudes Towards Aging and Geriatric Medicine. *Journal of Physician Assistant Education*, 18(1).
- Denton, G. D., Rodriguez, R., Hemmer, P. A., Harder, J., Short, P., & Hanson, J. L. (2009). A prospective controlled trial of the influence of a geriatrics home visit program on medical student knowledge, skills, and attitudes towards care of the elderly. *Journal of general internal medicine*, 24(5), 599-605.
- Department of Statistics Malaysia. Population and Housing Census, Malaysia 2010. (2010 Census). Population Distribution And Basic Demographic Characteristic Report 2010.
- Diachun, L., Van Bussel, L., Hansen, K. T., Charise, A., & Rieder, M. J. (2010). "But I see old people everywhere": Dispelling the myth that eldercare is learned in nongeriatric clerkships. *Academic Medicine*, 85(7), 1221-1228.
- Doherty, M., Mitchell, E. A., & O'Neill, S. (2011). Attitudes of healthcare workers towards older people in a rural population: A survey using the Kogan Scale. *Nursing research and practice*, 2011.
- Dorfman, L. T., Murty, S. A., Ingram, J. G., Evans, R. J., & Power, J. R. (2004). Intergenerational service-learning in five cohorts of students: Is attitude change robust?. *Educational Gerontology*, 30(1), 39-55.
- Drageset, J., Kirkevold, M., & Espehaug, B. (2011). Loneliness and social support among nursing home residents without cognitive impairment: A questionnaire survey. *International Journal of Nursing Studies*, 48(5), 611-619.
- Duxbury, L., Higgins, G., & Smart, R. (2011). Elder care and the impact of caregiver strain on the health of employed caregivers. *Work*, 40(1), 29-40.
- Duyan, V., & Gelbal, S. (2013). Study on the adaptation of the Elderly Person Attitude Scale into the Turkish language on a group of university students. *Turkish Geriatrics Journal*, 16(2), 202-209.
- Elderly. (2003) Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, Seventh Edition. Retrieved May 21 2015 from <http://medical-dictionary.thefreedictionary.com/elderly>
- Elderly. (2008) Mosby's Dental Dictionary, 2nd edition. Retrieved May 21 2015 from <http://medical-dictionary.thefreedictionary.com/elderly>
- Elderly. (2011) Segen's Medical Dictionary. Retrieved May 21 2015 from <http://medical-dictionary.thefreedictionary.com/elderly>
- Eltantawy, S. H. A. E. (2013). Relation between Nursing Students' Knowledge of Aging and Attitude towards Elderly People and Their Will and Intent to Work

with the Elderly. *Journal of Education and Practice*, 4(27), 125-136.

- Engström, G., & Fagerberg, I. (2011). Attitudes towards older people among Swedish health care students and health care professionals working in elder care. *Nursing Reports*, 1(1). doi:10.4081/nursrep.2011.e2
- Erickson, C. L. (2004). Parkinson's Disease , Depression and Medication Adherence : *Current Knowledge and Social Work Practice*, (April 2014), 37–41. doi:10.1300/J083v42n03
- Ernest Gonzales , Nancy Morrow-Howell & Pat Gilbert (2010) Changing Medical Students' Attitudes Toward Older Adults, *Gerontology & Geriatrics Education*, 31:3, 220-234, DOI:10.1080/02701960.2010.503128
- Evers, C., Ploeg, J., Kaasalainen, S. (2011). Case Study of the Attitudes and Values of Nursing Students Toward Caring for Older Adults. *Journal of Nursing Education*, 50,7: 404-409
- Ferrario, C.G., Freeman, F.J., Nellett, G., & Scheel, J. (2008). Changing nursing students' attitudes about aging: An argument for the successful aging paradigm. *Educational Gerontology*, 34, 51-66.
- Fishbein, M. & Ajzen, I. (1974). Attitudinal and normative variables as predictors of specific behaviors. *Journal of Personality and Social Psychology*, 27, 41-57.
- Footitt J, Anderson D (2012). Association between perception of wellness and health-related quality of life, co-morbidities, modifiable lifestyle factors and demographics in older Australians. *Australas J Ageing* ;31:22–7.
- Forman, D. E.; Berman, A. D.; McCabe, C. H.; Baim, D. S.; Wei, J. Y. (1992). "PTCA in the elderly: The "young-old" versus the "old-old". *Journal of the American Geriatrics Society* 40 (1): 19–22
- Forbes-Thompson, S., & Gessert, C. (2006). Nursing homes and suffering: Part of the problem or part of the solution? *The Journal of Applied Gerontology*, 25(3), 234–251.
- Feenstra, A. (2012). Student Attitudes Toward Older Adults. scholarworks.wmich.edu
- Funk, L. M., Chappell, N. L., & Liu, G. (2013). Associations Between Filial Responsibility and Caregiver Well-Being Are There Differences by Cultural Group?. *Research on Aging*, 35(1), 78-95.
- Getting, L., Fethney, J., McKee, K., Churchward, M., Goff, M., & Matthews, S. (2002). Knowledge, stereotyping and attitudes towards self ageing. *Australasian Journal on Ageing*, 21(2), 74-79.
- Golden, A. G., Gammonley, D., Hunt, D., Olsen, E., & Issenberg, S. B. (2014). The attitudes of graduate healthcare students toward older adults, personal aging,

health care reform, and interprofessional collaboration. *Journal of Interprofessional Care*, 28, 40–4. doi:10.3109/13561820.2013.830595

Guven SD, Muz GU, Erturk NE (2012). The attitudes of University students towards elderly discrimination and the relation of these attitudes with some variables. *J Anatolia Nurs Health Sci*. 15(2):99-105

Griffith CH 111, Wilson JF (2001). The loss of student idealism in the third-year clinical clerkships. *Eval Health Prof*;24:61-71.

Gupta, S., Venkatraman, S., Kamarthi, N., Goel, S., Goel, S., & Keswani, T. (2014). Assessment of the attitude of undergraduate dental students toward the geriatric population. *Tropical Journal of Medical Research*, 17(2), 104.

Håkan Jönson PhD & Malin Åkerström PhD (2004) Neglect of Elderly Women in Feminist Studies of Violence—A Case of Ageism?, *Journal of Elder Abuse & Neglect*, 16:1, 47-63, DOI:10.1300/J084v16n01\_03

Hammer, L. B., & Neal, M. B. (2008). Working sandwich-generation caregivers: Prevalence, characteristics and outcomes. *The Psychologist-Manager Journal*, 11(1), 93-112.

Hatami, B., Ahmady, A. E., Khoshnevisan, M. H., & Lando, H. A. (2013). Senior dental student's attitudes toward older adults and knowledge of geriatric dental care in the Islamic Republic of Iran. *EMHJ*, 19,

Henderson, J., Xiao, L., Siegloff, L., Kelton, M., & Paterson, J. (2008). 'Older people have lived their lives': First year nursing students' attitudes towards older people. *Contemporary Nurse*, 30(1), 32-45.

Heikkinen, S., & Krekula, C. (2008). Ålderism—ett fruktbart begrepp?/Ageism—A Useful Concept?. *Sociologisk forskning*, 18-34.

Herlofson, K., Hagestad, G., Slagsvold, B., & Sørensen, A. M. (2011). Intergenerational family responsibility and solidarity in Europe. *NOVA, Norway*.

Heycox, K., & Hughes, M. (2006). Social work students' attitudes towards and interest in working with older people: an exploratory study. *Advances in Social Work and Welfare Education*, 8(1), 6.

Hobbs C, Dean CM, Higgs J and Adamson B (2006): Physiotherapy students' attitudes towards and knowledge of older people. *Australian Journal of Physiotherapy* 52: 115–119]

Holroyd, A., Dahlde, S., Fehr, C., Jung, P., & Hunter, A. (2007). Attitudes toward aging: Implications for a caring profession. *Journal of Nursing Education*, 48(7), 374-380.

Huang, C. (2013). Undergraduate students' knowledge about aging and attitudes toward older adults in east and west: a socio-economic and Journal of Education and Practice cultural exploration. *International Journal of Aging Hum Dev.*, 77(1):59-76

- Huber, M., Reno, B. & Mckenny, J. (1992). Long term care personnel assess their attitudes and knowledge of the older adults. *Journal of Advanced Nursing*, 17: 1114-1121.
- Hughes, N. J., Soiza, R. L., Chua, M., Hoyle, G. E., MacDonald, A., Primrose, W. R., & Gwyn Seymour, D. (2008). Medical student attitudes toward older people and willingness to consider a career in geriatric medicine. *Journal of the American Geriatrics Society*, 56(2), 334-338.
- Husna, A. A., Robaiyah, K., & Tanti, I. R. (2009). Dental students' knowledge and perception of elderly in relation to geriatric dentistry training. *Medicine & Health*, 4(2), 76-83.
- Hweidi, I. M., & Al-Obeisat, S. M. (2006). Jordanian nursing students' attitudes toward the elderly. *Nurse Education Today*, 26, 23-30. doi:10.1016/j.nedt.2005.06.003
- Ismail, L., & Darusalam, G. (2011). Higher educational attainment among female than male students: the intervention to increase enrolment of male students in Malaysian tertiary institution. In Proceedings: International Conference: Future Education in Global Challenges (pp. 231-236).
- Ismail, N., Jo-Pei, T., & Ibrahim, R. (2009). The relationship between parental belief on filial piety and child psychosocial adjustment among Malay families. *Pertanika Journal of Social Science and Humanities*, 17, 215-224.
- Jalal B.H (1995). Future strategies in Health care for the elderly in Malaysia. Proceedings of the First National Symposium on Gerontology 1995. Issues and Challenges of Ageing. University of Malaya 29 September-1 October 1995. Gerontological Association of Malaysia.
- Juang, L. P., & Cookston, J. T. (2009). A longitudinal study of family obligation and depressive symptoms among Chinese American adolescents. *Journal of Family Psychology*, 23, 396-404.
- Juni, M. H. (2015). Ageing Population: A Public Health Implications. *International Journal of Public Health and Clinical Sciences*, 2(3).
- Kapoor. C, Au. E. (2011, September Thursday) News Strait Times. Female undergrads outnumber males: Malaysia. Retrieved from <http://news.asiaone.com/News/AsiaOne+News/Malaysia/Story/A1Story20110908-298320.html>
- Kearney, N., Miller, M., Paul, J., & Smith, K. (2000). Oncology healthcare professionals' attitudes toward elderly people. *Annals of Oncology*, 11, 599-601. doi:10.1023/A:1008327129699
- Kessler, E.M., Rakoczy, K. & Staudinger, U.M. (2004) The portrayal of older people in prime time television series: The match with gerontological evidence. *Ageing & Society*, 24, 531-552.



- Khan, N. A. (2011). Student attitudes about older adults: caring and cultural assimilation. *Dean of Graduate Studies McNair Director and Principal Investigator Fall 2011*, 152.
- Kogan N. Attitudes toward old people: The development of a scale and an examination of correlates. *The Journal of Abnormal and Social Psychology*. 1961; 62(1): 44. <http://dx.doi.org/10.1037/h0048053>
- Koh, L. C. (2012). Student attitudes and educational support in caring for older people—a review of literature. *Nurse education in practice*, 12(1), 16-20.
- Kohn, R., & Verhoek-Oftedahl, W. (2011). Caregiving and elder abuse. *Medicine and health, Rhode Island*, 94(2), 47-49.
- Kshetri DB, Smith WC. (2010). Self-reported health problems, health care utilisation and unmet health care needs of elderly men and women in an urban municipality and a rural area of Bhaktapur District of Nepal. *Aging Male*. 2011 Jun ;14(2):127-31. doi: 10.3109/13685538.2010.502272. Epub 2010 Sep 20
- Kipruto, J. (2013). The influence of socio-demographic characteristics of healthcare workers on their attitudes towards older people in nairobi, western and rift valley provinces of kenya.(Doctoral thesis. Moi University).
- Kimuna, S.R., Knox, D. & Zusman, M. (2005) College students' perceptions about older people and aging. *Educational Gerontology*, 31(7), 563-572.
- Kizilci, S., Kucukguclu, O., Mert, H., & Soylemez, B. A. Examination of nursing students' attitudes towards older people in Turkey. *HealthMED*, 544.
- Koskinen, S., Salminen, L., & Leino-Kilpi, H. (2014). Media portrayal of older people as illustrated in Finnish newspapers. *International journal of qualitative studies on health and well-being*, 9.
- Kuang, Y., McKittrick, S., Yang, G., Wang, J., Guan, S., Mankoff, R. (2010). Filial Attitudes of American and Chinese Undergraduate Students. *The American Association of Behavioral and Social Sciences Journal*, 14, 45-64.
- Kydd, A., Wild, D., & Nelson, S. (2013). Attitudes towards caring for older people: findings and recommendations for practice: In the second part of this article, Angela Kydd and colleagues compare data from two studies to gauge if there has been a change in opinion over a decade. *Nursing older people*, 25(4), 21-28.
- Kyu-taik Sung (2004) Elder respect among young adults: A cross-cultural study of Americans and Koreans. *Journal of Aging Studies*, 18 (2) pp 215-230
- Lamdma M, Kamath V, Kamath A. (2009). Health and social problems of the elderly: A cross-sectional study in Udupi Taluk, Karnataka. *Indian J Community Med*; 34:131-4
- Laura E. Berk, *Development Through the Lifespan*, (Allyn & Bacon, 2010), 5th Edition, Pearson Education, Inc., publishing. 607

- Leon, A. C., Davis, L. L., & Kraemer, H. C. (2011). The role and interpretation of pilot studies in clinical research. *Journal of psychiatric research*, 45(5), 626-629.
- Lu WH, Hoffman KG, Hosokab, S. (2002). Intimacy in a transnational era: The remaking of aging among Indian Americans. *Diaspora*, 11(3), 299–330.
- Lu, L., Kao, S. F., & Hsieh, Y. H. (2009). Positive attitudes toward older people and well-being among Chinese community older adults. *Journal of applied gerontology*.
- Lambrinou, E., Sourtzi, P., Kalokerinou, A., & Lemonidou, C. (2009). Attitudes and knowledge of the Greek nursing students towards older people. *Nurse Education Today*, 29(6), 617–622. doi:10.1016/j.nedt.2009.01.011
- Lan PC (2001). Subcontracting filial piety: Elder care in dual-earner Chinese immigrant households in the Bay Area. Working Paper No.21, April 2001, Centre for Working Families, University of California, Berkeley
- Lee, H. Y., Gibson, P., & Chaisson, R. (2011). Elderly Korean immigrants' socially and culturally constructed definitions of elder neglect. *Journal of Aging Studies*, 25, 126–134
- Lena A, Ashok K, Pawa M.C, Gray M.P, Zweig S.C (2010) . First Year Medical Students. *Educational Gerontology*; 36(8):15. <http://dx.doi.org/10.1080/03601270903534630>
- Leung, S., LoGiudice, D., Schwarz, J., & Brand, C. (2011). Hospital doctors' attitudes towards older people. *Internal Medicine Journal*, 41, 308–314.
- Liu, Y. E., Norman, I. J., & While, A. E. (2013). Nurses' attitudes towards older people: a systematic review. *International journal of nursing studies*, 50(9), 1271-1282.
- LooSee, B. E. H., & Jee Yoong, F. O. L. K. (2013). A study of filial piety practice in Malaysia: Relationship between financial well-being and filial piety. *African Journal of Business Management*, 7(38), 3895-3902.
- Lynott, P. P., & Merola, P. R. (2007). Improving the Attitudes of 4th Graders Toward Older People Through a Multidimensional Intergenerational Program. *Educational Gerontology*, 33(March 2015), 63–74. doi:10.1080/03601270600864041
- Lyons, I. (2009). Public Perceptions of Older People and Ageing: A literature review, (November), 1–68.
- Mafauzy M. The problems and challenges of the aging population of Malaysia. *Malaysian Journal of Medical Sciences*. 2000;7:1–3.
- Manning, Juliann (2012). Globalization and its Effects on Chinese College Students' Perspectives on Elderly Care. *Undergraduate Review*, 8, 152-158. Available at:[http://vc.bridgew.edu/undergrad\\_rev/vol8/iss1/27](http://vc.bridgew.edu/undergrad_rev/vol8/iss1/27)

- Maria H. van Zuilen MS , Mark P. Rubert PhD , Michael Silverman MD & John Lewis PhD (2001) Medical Students' Positive and Negative Misconceptions About the Elderly, *Gerontology & Geriatrics Education*, 21:3, 31-40, DOI: 10.1300/J021v21n03\_05
- Masse, M., & Meire, P. (2012). Is ageism a relevant concept for health care practice in the elderly? *Gériatrie et psychologie neuropsychiatrie du vieillissement*, 10(3), 333–341.
- Mikane, S., Kirino, M., & Futoyu, Y. (2011). Influence of Family Cohesion and Sense of Filial Responsibility on Viewpoints Regarding Socialization of Elderly Care in East Asian Countries. *Kawasaki Journal of Medical Welfare*, 17(1), 37–50.
- Wah B.L, Soon N. (July 30, 2014). Abandonment Cases of Elderly Parents. Ministry of Social and Family Development, Malaysia. Retrieved from <http://app.msf.gov.sg/Press-Room/Abandonment-Cases-of-Elderly-Parents>
- Miyawaki, C. E. (2014). Association of Filial Responsibility, Ethnicity, and Acculturation of Family Caregivers of Older Adults (Doctoral dissertation, University of Washington).
- McConatha, J.T., Hayta, V., Rieser-Danner, L., McConatha, D. & Polat, T.S.(2004) Turkish and U.S. attitudes toward aging. *Educational Gerontology*, 30(3), 169-183.
- McHugh, M. L. (2012). Interrater reliability: the kappa statistic. *Biochemia medica*, 22(3), 276-282.
- McKinlay, A., & Cowan, S. (2003). Student nurses' attitudes towards working with older patients. *Journal of advanced nursing*, 43(3), 298-309.
- Mohd, S.(2012). Welfare Regime, Social Protection and Poverty Reduction. In K. B. Teik (Ed.), *Policy Regimes and the Political Economy of Poverty Reduction in Malaysia* (pp. 107-144). Hampshire, UK: Palgrave Macmillan
- Mohd Saidatulakmal (2014). Proceeding of the Social Sciences Research ICSSR 2014 (e-ISBN 978-967-11768-7-0). 9-10 June 2014, Kota Kinabalu, Sabah, Malaysia. Organized by <http://WorldConferences.net>
- Muangpaisan, W., Intalapapron, S., & Assantachai, P. (2008). Attitudes of medical students and residents toward care of the elderly. *Educational Gerontology*, 34(5), 400-406.
- Mujahid, G. (2008, March). The feminization of ageing: Regional overview with a focus on Vietnam. Paper presented at the National Workforce on Gender Responsive Social Protection—Health Security for the Elderly, Hanoi, Vietnam.
- Myers, D. G. (2014). *Social Psychology | Glossary*. McGraw-Hill Higher Education. Retrieved June 25, 2014, from [http://highered.mheducation.com/sites/0072413875/student\\_view0/glossary.html](http://highered.mheducation.com/sites/0072413875/student_view0/glossary.html)

- Muramatsu, N., & Akiyama, H. (2011). Japan: Super-aging society preparing for the future. *Gerontologist*, 51(4), 425–432. doi:10.1093/geront/gnr067
- Nations, U. (2013). World Population Ageing, 2013. Retrieved from <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:World+Population+Ageing+2013#7>
- National Research Council (US) Panel on a Research Agenda and New Data for an Aging World. Preparing for an Aging World (2001): The Case for Cross-National Research. Washington (DC): National Academies Press (US); 6, The Health of Aging Populations. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK98373/>
- Neri, A. & Jorge, M. (2006). Attitudes and beliefs toward aging among undergraduate students from the education and health fields: curriculum planning contributions. *Estudos de Psicologia*, 23, 127-137.
- Nordic Council. (2012). The Nordic Welfare Model. Retrieved October 3, 2013, from <http://www.norden.org/en/aboutnordic-co-operation/areas-of-co-operation/the-nordic-welfaremodel/about-the-nordic-welfare-model>
- Nochajski, T. H., Waldrop, D. P., Davis, E. L., Fabiano, J. A., & Goldberg, L. J. (2009). Factors that influence dental students' attitudes about older adults. *Journal of dental education*, 73(1), 95-104.
- OECD. (2011a). Education at a Glance 2011 OECD indicators. OECD publishing. Retrieved June 25, 2014, from <http://dx.doi.org/10.1787/eag-2011-en>
- OECD. (2011b). Glossary. OECD publishing. Retrieved May 25, 2014, from <http://www.oecd.org/edu/skills-beyond-school/43642148.pdf>
- Ohta, M., & Kai, I. (2010). Factors affecting attitudes toward care of elderly mothers: Urban versus agricultural areas. *Archives of gerontology and geriatrics*, 51(3), 241-244.
- Ong FS. Ageing in Malaysia: a review of national policies and programmes. Ageing and Long Term Care: The International Development Research Centre (IRDC); 2001.
- Oyetunde, M. O., Ojo, O. O., & Ojewale, L. Y. (2013). Nurses' attitude towards the care of the elderly: Implications for gerontological nursing training. *Journal of Nursing Education and Practice*, 3(7), 150–158. doi:10.5430/jnep.v3n7p150
- Oxford Dictionaries, Language Matters. (2014). Oxford University Press. Retrieved June 28, 2014, from <http://www.oxforddictionaries.com/definition/english/practice>
- Pacala, J., Boulton, C., & Hepburn, K. (2005). Ten years experience conducting the aging game workshop: Was it worth it? *Journal of the American Geriatrics Society*, 54(1), 144–149.

- Palmore, E. B. (1988). *The Facts on Aging Quiz: A Handbook of Uses and Results*. New York: Springer Inc.
- Pan, I. J. (2007). The effect of an experiential learning strategy on nursing students' knowledge and attitudes toward older people in Taiwan.
- Park K. Park's text book of preventive and social medicine (2011). 21st ed. Jabalpur, India: M/S Banarsidas Bhanot; Blindness; pp. 370–4
- Patricia M. Davidson , Michelle DiGiacomo & Sarah J. McGrath (2011) The Feminization of Aging: How Will This Impact on Health Outcomes and Services?, *Health Care for Women International*, 32:12, 1031-1045, DOI: 10.1080/07399332.2011.610539
- Paul James and Peter Mandaville (2010). *Globalization and Culture, Vol. 2: Globalizing Religions*. London: Sage Publications.
- Peckham, A., Kuluski, K., Montgomery, R., Morton, F., & Watkins, J. (2010). *Formal and Informal Care for Older Persons: Assessing the Balance in Ontario*. Balance of Care Research Group, University of Toronto.
- Phelan, Colin & Wren, Julie. (2006). Exploring Reliability in Academic Assessment. Available on 2013, 08, 03
- Phelan, A. (2008). Elder abuse, ageism, human rights and citizenship: Implications for nursing discourse. *Nursing Inquiry*, 15(4), 320\_329.
- Poi, P. J. H., Forsyth, D. R., & Chan, D. K. (2004). Services for older people in Malaysia: issues and challenges. *Age and ageing*, 33(5), 444-446.
- Rani, R., & Sharma, S. (2004). Attitude of Teenagers Towards Their Grandparents. *Journal of Human Development*, 15, 183-185.
- Robinson, T., Callister, M., Magoffin, D. & Moore, J. (2007) The portrayal of older characters in Disney animated films. *Journal of Aging Studies*, 21(3), 203-213
- Ross, L., Duigan, T., Boyle, M., & Williams, B. (2014). Student Paramedic Attitudes Towards the Elderly: A cross-sectional study. *Australasian Journal of Paramedicine*, 11(3). Retrieved from <http://ro.ecu.edu.au/jephc/vol11/iss3/5>
- Rozanova, J. (2010). Discourse of successful aging in The Globe & Mail: Insights from critical gerontology. *Journal of Aging Studies*, 24(4), 213\_222.
- Sadaf, A., & Yazdanie, N. (2012). Attitude of Dental Students Towards Elderly. *Pakistan Oral & Dental Journal*, 32(1).
- Sahin, S., Mandiracioglu, A., Tekin, N., Senuzun, F., & Akcicek, F. (2012). Attitudes toward the elderly among health care providers: Reliability and validity of the Turkish version of the UCLA geriatrics attitudes (UCLA-GA) scale. *Archives of Gerontology and Geriatrics*, 55(1), 205–209.

- Samad, S. A., & Mansor, N. (2013). Population Ageing and Social Protection in Malaysia. *Malaysian Journal of Economic Studies*, 50(2), 139-157.
- Samra, R., Griffiths, A., Cox, T., Conroy, S., & Knight, A. (2013). Changes in medical student and doctor attitudes toward older adults after an intervention: a systematic review. *Journal of the American Geriatrics Society*, 61(7), 1188-1196.
- Sanna Malinen & Lucy Johnston (2013) Workplace Ageism: Discovering Hidden Bias, *Experimental Aging Research: An International Journal Devoted to the Scientific Study of the Aging Process*, 39:4, 445-465, DOI:10.1080/0361073X.2013.808111
- Schulz, R., & Sherwood, P.R. (2008). Physical and mental health effects of family caregiving. *American Journal of Nursing*, 108(9 suppl), 23-27.
- Selvaratnam, D. P., Bakar, N. A., Idris, N. A. H., & dan Pengurusan, F. E. (2012). The health determinants of elderly Malaysian population. In *Proceeding of the 7th National Conference on Malaysian Economy*.
- Serem Dorcas Jepkorir (2011). Attitudes of the youth towards the elderly in a changing society. *International Journal of Current Research*, 3, 204–208.
- Sharma, K. & Kemp, C. L. (2012). "One should follow the wind": Individualized filial piety and support exchanges in Indian immigrant families in the United States. *Journal of Aging Studies*, 26 (2): 129-139. doi:10.1016/j.jaging.2011.10.003
- Sheikh, R. B., Mathew, E., Rafique, A. M., Suraweera, R. S. C., Khan, H., & Sreedharan, J. (2013). Attitude of medical students toward old people in Ajman, United Arab Emirates. *Asian Journal of Gerontology and Geriatrics*, 8, 85-89.
- Shue C.K, McNeley K, Arnold L (2005) . Changing medical students' attitudes about older adults and future older patients. *Acad Med*;80(10 Suppl):S6-9.
- Shoemaker, A., Bowman, S., Lester, T. (1998). Gerontological nursing education: A professional and personal challenge for future baccalaureate faculty and students. *Educational gerontology*, 24(5), 491-507.
- Sijuwade, P. O. (2009). Attitudes towards old age: a study of the self-image of aged. *Studies on Home and Community Science*, 3(1), 1-5.
- Sim, O. F. (2001). Ageing in Malaysia: National policy and future direction. *University of Malaya, Kuala Lumpur*.
- Sinha, M. (2013). Spotlight on Canadians: Results from the General Social Survey: Portrait of caregivers, 2012. Statistics Canada catalogue no. 89-652-X – No. 001. Ottawa, Ontario. Social and Aboriginal Statistics Division.
- Skirbekk, H., & Nortvedt, P. (2014). Inadequate treatment for elderly patients: Professional norms and tight budgets could cause 'ageism' in hospitals. *Health Care Analysis*, 22(2), 192–201.

- Slevin, A. (1991). Ageist attitudes among young adults: Implications for a caring profession. *Journal of Advanced Nursing*, 16: 1197–1205.
- Söderhamn, O., Lindencrona, C., & Gustavsson, S. M. (2001). Attitudes toward older people among nursing students and registered nurses in Sweden. *Nurse Education Today*, 21, 225–229. doi:10.1054/nedt.2000.0546
- Statistics Bureau. (2010). Portal site of official statistics of Japan. Retrieved April 30, 2011, from <http://www.e-stat.go.jp/SG1/estat/ListE.do?lid=000001063433>
- Steiner, Allison, "The Lived Experiences of Sandwich Generation Women and Their Health Behaviours" (2015). Theses and Dissertations (Comprehensive). Paper 1722. <http://scholars.wlu.ca/etd/1722>
- Suwanrada, W. (2009). Poverty and Financial Security of the Elderly in Thailand, 33, 50-61
- Taha, H.M., & Mat, R. (2003). Socio-economic characteristics of the elderly in Malaysia. In 21st Population Census Conference, 19 – 21 November 2003, Kyoto, Japan.
- Talley, R. C., & Cruz, J. E. (2007). Caring for the most vulnerable: Framing the public health of caregiving. *American Journal of Public Health*, 97(2), 224-228.
- Tan Choe Choe (2007). No More Abandoned Parents. *New Sunday Times* (Prime News), Sunday, 22nd April, 2007 pg. 16-17.
- Tatara, T., & Kuzmeskus, L. M. (1996). Types of elder abuse in domestic settings. Retrieved from: <http://www.ncea>.
- Terry Fulmer PhD, Rachel F. Rodgers PhD & Allison Pelger RN, BSN, MPH (2014) Verbal Mistreatment of the Elderly, *Journal of Elder Abuse & Neglect*, 26:4, 351-364, DOI: 10.1080/08946566.2013.801817
- Thakur, R., Banerjee, A., & Nikumb, V. (2013). Health Problems Among the Elderly: A Cross-Sectional Study. *Annals of Medical and Health Sciences Research*, 3(1), 19–25. doi:10.4103/2141-9248.109466
- Tien, W. Y. M., Alagappar, P. N., & David, M. K. (2011). The Attitude of Filial Responsibility of Malaysian Students towards their Elderly Parents. [*sn*].
- Thomas Nicolaj Iversen , Lars Larsen & Per Erik Solem (2009) A conceptual analysis of Ageism, *Nordic Psychology*, 61:3, 4-22
- Troisi J. (2004) “Ageing in Africa: Older persons as a resource” A paper presented at the International Conference on “Rapid Ageing and the changing role of the elderly in African households”, Organized by the Union for African Population Studies UAPS/UEPA (Senegal), the HSRC in collaboration with the Department of Social Development (South Africa) 18-20 August, 2004, Pretoria, South Africa.

- Tufan, F., Yuruyen, M., Kizilarlanoglu, M. C., Akpınar, T., Emiksiye, S., Yesil, Y., ... & Karan, M. A. (2014). Geriatrics education is associated with positive attitudes toward older people in internal medicine residents: A multicenter study. *Archives of Gerontology and Geriatrics*.
- Tu`rgay a, S. S\_ahin b, F. S\_enuzun Aykar c, D. Sari d,\*, A. Badir e, Z. Canli O`zer. (2015) Attitudes of Turkish nursing students toward elderly people. *Eur Geriatr Med*, 6(3), 267–270. <http://dx.doi.org/10.1016/j.eurger.2015.01.006>
- Ülkü Polat, AyiŖe Karadağ, Zekeriya Ülger & Nevra Demir (2014) Nurses' and physicians' perceptions of older people and attitudes towards older people: Ageism in a hospital in Turkey, *Contemporary Nurse*, 48:1, 88-97, DOI: 10.1080/10376178.2014.11081930
- Ünalın, D., Soyuer, F., & Elmalı, F. (2012). Geriatri Merkezi ÇalıŖanlarında YaŖlı Tutumunun Deęerlendirilmesi [Evaluation of attitude towards the elderly in geriatric centre workers]. *Kafkas Journal of Medical Sciences*, 2(3), 115–120.
- United Nations, Department of Economic and Social Affairs, Population Division (2013). World Population Ageing 2013. ST/ESA/SER.A/348.
- Van Dussen, D. & Weaver, R. (2009). Undergraduate students' perceptions and behaviors related to the aged and to aging processes. *Educational Gerontology*, 35(4), 342-357.
- Van Vonderen, K. E., & Kinnally, W. (2012). Media effects on body image: Examining media exposure in the broader context of internal and other social factors. *American Communication Journal*, 14(2), 41–57.
- Van Zuilen, M. H., Rubert, M. P., Silverman, M., & Lewis, J. (2001). Medical Students' Positive and Negative Misconceptions About the Elderly. *Gerontology & Geriatrics Education*, 21(May 2014), 31–40. doi:10.1300/J021v21n03\_05
- Vickers, K. (2007). Aging and the media: yesterday, today, and tomorrow. *Californian Journal of Health Promotion*, 5(3), 100-105.
- Wan YC, Poi PJH. (1997). A comparative study of first and third year student nurses' knowledge and attitudes on the elderly and ageing. *Med J Malaysia*;52(3)
- Wang, C. C., Liao, W. C., Kao, M. C., Chen, Y. J., Lee, M. C., Lee, M. F., & Yen, C. H. (2009). Taiwanese medical and nursing student interest levels in and attitudes towards geriatrics. *Annals Academy of Medicine Singapore*, 38(3), 230.
- Wan-Ibrahim, W. A., & Zainab, I. (2014). Some Demographic Aspects of Population Ageing in Malaysia. *World Applied Sciences Journal*, 30(7), 891-894.
- William Keng Mun Lee PhD (2003) Women and Retirement Planning: Towards the "Feminization of Poverty" in an Aging Hong Kong, *Journal of Women & Aging*, 15:1, 31-53, DOI: 10.1300/J074v15n01\_04
- World Health Organization. (2007). Women, ageing and health: A framework for action. Focus on gender. Geneva, Switzerland



- Wu, B., Carter, M., W., Gions, R., T., Cheng, C. (2005). Emerging Services for Community Based Long-Term Care in Urban China: A Systematic Analysis of Shanghai's Community-Based Agencies. *Journal of Aging and Social Policy*, 17(4), 37-58.
- Wu, S., White, A., Cash, K., & Foster, S. (2009). Nursing home care for older people in Taiwan: A process of forced choice. *Journal of Clinical Nursing*, 18(14), 1986–1993
- Xiao, L. D., Shen, J., & Paterson, J. (2013). Cross-cultural comparison of attitudes and preferences for care of the elderly among Australian and Chinese nursing students. *Journal of Transcultural Nursing*, 24(4), 408-416.
- Yang, Y., Xiao, L. D., Ullah, S., & Deng, L. (2013). General practitioners' knowledge of ageing and attitudes towards older people in China. *Australasian Journal on Ageing*, n/a–n/a. doi:10.1111/ajag.12105
- Yeh, K. -H., & Olwen, B. (2003). A test of the dual filial piety model. *Asian Journal of Social Psychology*, 6/3, 215–228.
- Yoong, J. (2013). Full Length Research Paper A study of filial piety practice in Malaysia : Relationship between financial well-being and filial piety. *African Journal of Business Management*, 7(38), 3895–3902. doi:10.5897/AJBM10.424
- Yuen JK, Breckman R, Adelman RD, Capello CF, LoFaso V, Reid MC (2006). Reflections of medical students on visiting chronically ill older patients in the home. *J Am Geriatr Soc* ;54(11):1778-83.
- Zakari, N. (2005). Attitudes toward the elderly and knowledge of aging as correlates to the Willingness and intention to work with elderly among Saudi nursing students. Ph.D. dissertation, George Mason University.
- Zambrini, D. A. B., Moraru, M., Hanna, M., Kalache, A., & Nuñez, J. F. M. (2008). Attitudes toward the elderly among students of health care related studies at the University of Salamanca, Spain. *Journal of Continuing education in the health professions*, 28(2), 86-90.
- Zhan, H., J., Liu, G., Guan, X., Bai, H. (2006). Recent Developments in Institutional Elder Care in China: Changing Concepts and Attitudes. *Journal of Aging and Social Policy*, 18(2), 85-107.
- Zhan, H., J., Feng, X., Luo, B. (2008). Placing Elderly Parents in Institutions in Urban China: A Reinterpretation of Filial Piety. *Research on Aging*, 30(5), 543-571.
- Zhang, K., & Zhang, W. (2004). Adolescents' attitudes toward filial piety. *Psychological Science*, 27, 1321–1371.
- Zhou, L., (2007). What college students know about older adults? A cross-cultural qualitative study. *Educational Gerontology*, (33), 811-831.

Zizza, C. A.; Ellison, K. J.; Wernette, C. M. (2009). "Total Water Intakes of Community-Living Middle-Old and Oldest-Old Adults". *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences* 64A (4): 481

Zunzunegui, M.V., Beland, F., Otero, A., (2001). Support from children, living arrangements, self-rated health and depressive symptoms of older people in Spain. *International Journal of Epidemiology* 30, 1090-1099.

Zverev, Y. (2013). Attitude towards older people among Malawian medical and nursing students. *Educational Gerontology*, 39(1), 57-66.

