ELDER ABUSE AMONG RURAL COMMUNITY DWELLING ELDERS IN KUALA PILAH DISTRICT, NEGERI SEMBILAN STATE, MALAYSIA

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FACULTY OF MEDICINE
UNIVERSITY OF MALAYA
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Name of Candidate: Rajini Sooryanarayana

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Title of Project Paper/Research Report/Dissertation/Thesis ("this Work"): Elder Abuse among Rural Community Dwelling Elders in Kuala Pilah District, Negeri Sembilan State, Malaysia

Field of Study: Epidemiology/ Family Health

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ABSTRACT

Background: The increasing ageing population, coupled with urbanisation, rapid development and changes in the traditional family structure has led to various conflicts within families, social networks and health care systems. As Malaysia is fast approaching an ageing nation status, the health, safety and welfare of elders are major concerns to society. Elder abuse and neglect is a phenomenon recognised in some parts of the world but less so locally. This is the first community based study to be undertaken on elder abuse in Malaysia. ***Aim:*** To describe the prevalence of elder abuse among rural community dwelling elders, determine associated factors; describe the pattern of disclosure of abuse and the characteristics of perpetrators. ***Design*:** This study consisted of three phases. Phase one was a systematic review on the prevalence and measurement of elder abuse. Phase two was a pilot study, validating the questionnaire to be used in the next phase. Phase three was a cross-sectional study conducted in the community of Kuala Pilah district, Negeri Sembilan state, which consisted predominantly of rural populace. A total of 2,496 elders were approached in a multi-stage random sample of community dwelling elders in selected households using the sampling frame of the national census provided by the Department of Statistics, Malaysia. Face-to-face interviews guided by a structured questionnaire were conducted over a period of six months from November 2013 to May 2014. Cognition, depression, anxiety, stress, physical health status, mental health status, disability, physical function, mobility-disability and risk of social isolation were assessed, besides chronic disease, current employment, and history of abuse, among other sociodemographic features. ***Results*:** The prevalence of overall abuse was reported to be 4.5% in the past 12 months, with psychological abuse being the most common form followed by financial, physical, neglect and sexual abuse. In the multivariate analysis, males (aOR 1.70, 95% CI 1.05-

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3.06), secondary or higher level education (aOR 2.13, 95% CI 1.03-4.42), poor mental health status (aOR 4.14, 95% CI 2.18-7.87), risk of social isolation (aOR 2.67, 95% CI 1.42-5.02), a prior history of abuse (aOR 4.29, 95% CI 1.72-10.69) and depressive symptoms (aOR 11.78, 95% CI 4.08-34.06) were found to be associated with overall abuse. Most elders disclosed abusive events to other family members, with various actions ensuing to approach or avoid the perpetrator. Perpetrators tended to be males and from amongst family members, specifically adult children, with abuse usually occurring at the elder's home. ***Conclusion:*** Elder abuse occurred among one in every twenty elders. Early screening especially for elders with depressive symptoms, poorer mental health status and prior history of abuse may help to identify elders at risk of elder abuse. Home visits may be helpful to detect elders at risk of isolation. Improving social support of elders can alleviate the burden of family caregivers, especially as perpetrators are largely family members. A multidisciplinary effort by social and health care workers with better legal provisions would serve to help prevent this phenomenon from occurring and better protect those affected, with future research specifically looking into this issue.

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ABSTRAK

Latarbelakang: Peningkatan bilangan warga emas di Malaysia, ditambah dengan pembangunan, proses urbanisasi yang pesat dan perubahan dalam struktur tradisional keluarga telah membawa kepada pelbagai konflik dalam keluarga, rangkaian sosial dan sistem perkhidmatan kesihatan. Memandangkan Malaysia kini mengalami penuaan penduduknya, taraf kesihatan dan kebajikan warga emas perlu diberi perhatian. Masalah penderaan dan pengabaian warga emas adalah satu fenomena yang diiktiraf di luar negara tetapi belum di Malaysia. Ini merupakan kajian pertama berkenaan isu ini di kalangan komuniti Malaysia. **Tujuan:** Untuk menentukan prevalens penderaan dan pengabaian warga emas di kalangan masyarakat luar bandar, mengenalpasti faktor-faktor yang berkaitan, menerangkan cara warga tua melaporkan kejadian tersebut, serta ciri-ciri pelaku. **Kaedah:** Projek ini merangkumi tiga peringkat. Peringkat pertama ialah kajian kesusasteraan secara sistematik mengenai prevalens serta pengesanan penderaan dan pengabaian warga emas. Peringkat kedua adalah projek perintis untuk menguji borang soal selidik yang bakal digunakan di peringkat komuniti. Peringkat ketiga merupakan kajian keratas lintang yang telah dijalankan di kalangan masyarakat luar bandar daerah Kuala Pilah, Negeri Sembilan. Seramai 2,496 warga emas layak ditemuramah melalui persampelan berperingkat secara rawak yang dilakukan oleh Jabatan Perangkaan Malaysia. Temuduga bersemuka dengan warga emas berpandukan kepada soal selidik telah dijalankan oleh penyelidik dan pembantu penyelidik terlatih dalam tempoh enam bulan, dari bulan November 2013 hingga Mei 2014. Faktor-faktor yang dikaji termasuklah tahap kognisi, kemurungan, keresahan, tekanan perasaan, tahap kesihatan fizikal, tahap kesihatan mental, taraf kurang upaya, fungsi fizikal, taraf pergerakan berkaitan kurang upaya, risiko kekurangan keterlibatan sosial, penyakit kronik, taraf pekerjaan sekarang, dan sejarah pernah berlakunya penganiayaan, serta ciri-ciri demografi. **Keputusan:** Prevalens penganiayaan warga emas secara

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keseluruhan adalah 4.5% dalam tempoh 12 bulan lalu, dengan berlakunya penderaan psikologi dengan kadar tertinggi, diikuti dengan penganiayaan kewangan, pengabaian, penderaan fizikal, dan penderaan seksual. Dalam analisa multivariat, lelaki (aOR 1.70, 95% CI 1.05-3.06), pendidikan sekolah menengah atau lebih tinggi (aOR 2.13, 95% CI 1.03-4.42), tahap kesihatan mental yang kurang baik (aOR 4.14, 95% CI 2.18-7.87), risiko terpencil dari segi sosial (aOR 2.67, 95% CI 1.42-5.02), sejarah pernah berlakunya penderaan terdahulu (aOR 4.29, 95% CI 1.72-10.69) dan simptom kemurungan (aOR 11.78, 95% CI 4.08-34.06) didapati berkaitan dengan fenomena penganiayaan secara keseluruhan. Sebahagian besar warga emas melaporkan kejadian ini kepada ahli-ahli keluarga yang lain. Seterusnya pelbagai tindakan diambil untuk mengelakkan kejadian ini daripada berlaku. Pelaku selalunya terdiri daripada anak lelaki dewasa, dan kejadian sering berlaku di rumah warga emas itu sendiri.

Kesimpulan: Penganiayaan warga emas berlaku di kalangan satu dalam setiap dua puluh warga emas. Saringan awal terutamanya untuk warga emas dengan simptom kemurungan, taraf kesihatan mental yang kurang baik, dan sejarah pernahnya berlaku kejadian penderaan mungkin dapat mengenalpasti warga emas yang berisiko mengalami penderaan serta pengabaian warga emas. Lawatan ke rumah kemungkinan dapat mengenalpasti warga emas yang berisiko terpencil dari segi sosial. Meningkatkan jaringan sokongan sosial warga emas dapat mengurangkan beban penjaga warga emas, memandangkan kebanyakan penjaga terdiri daripada kalangan keluarga sendiri. Usaha multidisiplinari oleh kakitangan kebajikan dan kesihatan serta peruntukan perundangan yang lebih baik akan dapat mengelakkan berlakunya kejadian ini serta melindungi warga emas terlibat. Penyelidikan lanjut yang khusus kepada aspek ini adalah disyorkan pada masa hadapan.

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ABBREVIATIONS

ADL: Activities of Daily Living

AOR: Adjusted Odds Ratio

ACAT: Aged Care Assessment Team

APS: Adult Protective Services

CI: Confidence Interval

CTS: Conflict Tactics Scale

CTS2: Revised Conflict Tactics Scale

DASS 21: Depression, Anxiety and Stress Severity Scale

DoS: Department of Statistics, Malaysia

EB: Enumeration Block

ECAQ: Elderly Cognitive Assessment Questionnaire

FHDD: Family Health Development Division

GDS: Geriatric Depression Scale

IADL: Instrumental Activities of Daily Living

INPEA: International Network for the Prevention of Elder Abuse

JKKK: "Jawatankuasa Keselamatan dan Kemajuan Kampung", or Village Safety and Development Committee

LQ: Living Quarters

LSNS6: revised Lubben's Social Network Scale

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MOH: Ministry of Health, Malaysia

OR: Odds Ratio

SF12v2: Quality Metrics Quality of Life Short Form 12 version 2

SPSS: Statistical Package for the Social Sciences

STROBE: Strengthening the Reporting of Observational Studies in Epidemiology

UK: United Kingdom

UN: United Nations

USA: United States of America

WHO: World Health Organization

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CHAPTER 1 : INTRODUCTION

1.1 About this work

The *Projek Kesihatan Warga Emas* or Senior Citizen Health Project was initiated in the state of Negeri Sembilan through a collaboration fostered between the University of Malaya and the Negeri Sembilan State Health Department, Ministry of Health Malaysia in the year 2013. Under their auspices and cooperation from the Kuala Pilah district health office which falls under the purview of the Negeri Sembilan State Health Department, this study was one among several undertaken by various researchers, with funding from the University of Malaya/ Ministry of Higher Education High Impact Research grant and University of Malaya Grand Challenge Grant.

1.1.1 Organisation of thesis

Chapter 1 provides an overview of elder abuse and neglect (EAN) among community dwelling elders in Malaysia and other countries, as well as justifying the significance of the current study with a specific focus on abuse among elders. Chapter 2 continues with a review of the literature concerning elders and abuse. A systematic review describes the variation in prevalence of and measurement of EAN (Sooryanarayana, Choo, & Hairi, 2013). Besides this, the various factors associated with EAN and its disclosure is also reviewed. Chapter 3 details the methods used to conduct this study, right from its inception to end, including the ethical issues faced. Chapter 4 describes the results found during the course of this study, with part of it highlighted in the Journal of the American Geriatrics Society, both the pilot study findings (Sooryanarayana, Choo, Hairi, Chinna, & Bulgiba, 2015) and a case study from the rural community based study (Sooryanarayana, 2015). Chapter 5 discusses the results in relation to what is known so far from previous works as mentioned in the literature review and the local setting.

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Chapter 6 concludes by placing the findings of this study in perspective with current policy and existing frameworks to deal with elder abuse and neglect.

1.2 Background

1.2.1 **Malaysia as a nation**

Malaysia is a relatively young country, having achieved independence in 1957 from the British. It is an upper-middle income South-East Asian country, as defined by the United Nations, comprising 11 states in Peninsular Malaysia, two in East Malaysia, and two Federal Territories (United Nations. Department of Economic and Social Affairs. Population Division, 2013). Its land area is just under 330,803 square kilometres, and its population stood at 28.6 million in 2010, with Peninsular Malaysia accounting for almost 78.9 percent of the population, and East Malaysia 21.1 percent. This figure had since rose to an estimated 31.0 million in 2015 (Department of Statistics Malaysia, 2015). It is a multi-ethnic, multi-cultural and multi-linguistic population, with Bumiputera Malays accounting for 49 percent of the population, Chinese 23 percent, Indians 7 percent, other Bumiputera 11 percent, others including non-citizens of ten percent. Two thirds of the population is urbanised, with 35 to 90 percent of various states being urbanised. Malaysia's economy has changed over the years from a largely agricultural based one to a manufacturing, industries and services based economy (Department of Statistics Malaysia, 2010a).

1.2.2 **The aging population**

Malaysia is fast achieving an ageing population status. There were an estimated five percent, or 1,427,341 elderly persons aged 65 years and above out of a total 28,334,135

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population in 2010, according to the ten yearly national level census (Department of Statistics Malaysia, 2010a). Current estimates of the above 65 years age group are at 5.9% of the total population, with a steady increase seen over the years (Department of Statistics Malaysia, 2015). Despite the national census data classifying elders as those aged 65 and above, Malaysia classifies elders as persons aged 60 years and above for the purpose of its policy development related to older persons, following the United Nations World Assembly on Ageing held in Vienna in 1982. Using age 60 years, the proportion of elderly is higher, at eight percent of the population, or 2,251,217 of the 28.3 million population in 2010 (Department of Statistics Malaysia, 2010a). Currently, it stands at 9.1% or 2,825,500 of the 30,995,700 estimated total population (Department of Statistics Malaysia, 2015). A recent report states that the world population is ageing rapidly, with developing countries doubling the number of elderly in a relatively short span of time compared to developed countries. It cited Malaysia as an example with 7% of elderly aged 60 years or more in year 2018, forecasted to double by 2046. To put this in perspective, the total number of elders aged 60 and above in Asia and Africa in year 2000 which was 1.7 billion in year 2000, will double by year 2030 (Shetty, 2012).

Besides an aging population, there will likely be an unequal distribution of elderly in future due to a large migration of young population to the cities leaving a large cohort of elderly in rural areas (Mat & Taha, 2003). Elderly in rural areas might have greater needs, especially in terms of finances and health services, than those in urban areas (Institute for Public Health. National Institutes of Health. Ministry of Health Malaysia, 2012).

With the ageing population, health, protection and welfare of the elderly become important. Population ageing is often viewed in a negative context such as in terms of disability adjusted life years or dependency ratio (Lloyd-Sherlock et al., 2012). Population ageing, which is a global phenomenon not uncommon to Malaysia, brings

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with it its share of maladies, including proper treatment of non-communicable diseases, increased risk of falls, and even elder mistreatment, or elder abuse (Lancet, 2012). In order to focus on abuse as a critical issue likely to affect elders, this study was therefore initiated and conducted.

1.3 The elder abuse phenomenon

1.3.1 Elder abuse definition

To date, there are various terms and definitions used for EAN, which may cause a lack in clarity or precision if they were all to be applied. Therefore, the term chosen to be used shall reflect upon elders as a whole. Scholars had suggested the term elder abuse is preferred to elder mistreatment, by virtue of being more general and being the term used by the World Health Organisation (WHO) (Krug, Mercy, Dahlberg, & Zwi, 2002). Elder abuse in this context covers both abuse and neglect. Neglect may be active, which implies a decision by the caregiver to withhold things needed by the elder, or passive, which implies ignorance on the part of the caregiver of a need or of how to fulfil the elders needs (Rosenblatt, 1996).

The most common definition of elder abuse is that following the WHO which uses the definition developed by Action on Elder Abuse in the United Kingdom and subsequently adopted by the International Network for the Prevention of Elder Abuse. It states ‘‘Elder abuse is a single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person” (Krug et al., 2002).

According to this definition, elder abuse may be generally divided into the following five major categories:

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- Physical abuse – the infliction of pain or injury, physical coercion, or physical or drug induced restraint.
- Psychological or emotional abuse – the infliction of mental anguish.
- Financial or material abuse – the illegal or improper exploitation or use of funds or resources of the older person.
- Sexual abuse – non-consensual sexual contact of any kind with the older person.
- Neglect – the refusal or failure to fulfil a caregiving obligation. This may or may not involve a conscious and intentional attempt to inflict physical or emotional distress on the older person.

Some possible reasons why different countries or studies use various terms or definitions, rather than adopting the WHO definition is the differing cultural context and how abuse is defined or viewed in respective societies. Asian elders tend to reside at home, within the community setting, compared to the western or more developed countries where institutionalisation of elders is a common and accepted phenomenon; almost part of ageing (Chokkanathan & Lee, 2006; Oh, Kim, Martins, & Kim, 2006; Wu et al., 2012). The different interplay of factors in both the community setting and institutional setting may lead to different outcomes, especially when viewed from the point of the elderly person, the caregiver or caretaker, and the setting in which they are in. This extends to health care providers, including staff at nursing homes, nurses, doctors and social workers. Injuries and outcomes of abuse may also be viewed differently by elders and health care providers, with some not perceiving the abuse as such. Thus the terms abuse, neglect, mistreatment or maltreatment may be used with different connotations.

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Having adopted the WHO definition of elder abuse, for the purposes of studying available current literature, other terms defining elder abuse, such as maltreatment or mistreatment were taken into consideration to perform a comprehensive literature review, as shown in the next chapter. This is especially as the term elder mistreatment appears to be widely used in studies conducted in the United States of America (Buri, Daly, Hartz, & Jogerst, 2006; Canadian Task Force, 1994; T. Fulmer et al., 2000; Lachs, Williams, O'Brien, Pillemer, & Charlson, 1998) or sometimes studied as potentially harmful informal caregiver behaviour (Christie et al., 2009). Sometimes EAN may be studied as part of family conflict or violence, much like child abuse or domestic violence (Shugarman, Fries, Wolf, & Morris, 2003; Straus, 1979; Straus, Hamby, Boney-Mccoy, & Sugarman, 1996).

No doubt the definition of EAN by the WHO covers the five widely recognised types of abuse and is commonly used, but some alternatives were found while reviewing various literature, including several elder abuse studies conducted at national level. In the United States of America, abuse of elders was classified into seven categories, including neglect and self-neglect as two separate entities, besides recognising abandonment, financial or material exploitation, emotional or psychological abuse, physical abuse and sexual abuse (American Public Human Services Association. National Center on Elder Abuse, 1998). In the United Kingdom, the first national prevalence study used the term mistreatment to refer to both abuse and neglect of elders, with abuse referring to financial, psychological, physical and sexual abuse (Biggs, Manthorpe, Tinker, Doyle, & Erens, 2009). The national prevalence study on elder abuse and neglect in Ireland followed the WHO definition (Naughton et al., 2012) while that in Portugal and Macedonia adopted and operationalised it to suit the local setting (Gil et al., 2014; Jordanova, Markovik, Sethi, Serafimovska, & Jordanova, 2014). In Israel, a broad definition to refer to “destructive and offensive behaviour inflicted on an elder person

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within the context of a trusting relationship that produces physical and psychological pain, social or financial harm, and unnecessary suffering, loss, or violation of human rights and induces harm to the elder person's quality of life" was used (Lowenstein, Eisikovits, Band-Winterstein, & Enosh, 2009). In all, however, the same subtypes of physical abuse, financial abuse, psychological abuse, sexual abuse and neglect are recognised. Therefore this led to the WHO definition and conceptualisation being adopted for the purposes of this study. In a recent attempt to develop a tool to assess elder abuse in Japan, the term domestic elder abuse was coined, to refer to elder abuse perpetrated by a caregiver who is not a staff member of a long term care centre, or essentially, elder abuse occurring among community dwelling elderly persons. Elder abuse here referred to physical abuse, neglect, psychological abuse, sexual abuse, economic abuse, self-neglect and social abuse, where social abuse especially referred to cutting off the social contact of the elder with others, restricting the elder's social activities in order to isolate him or her, and making the elder person feel socially excluded (Yi, Honda, & Hohashi, 2015).

1.3.2 **Malaysian policy and legislation**

To date, there are no formal screening tools or routine assessments to detect elder abuse, nor are there any laws to protect the elderly from such abuse. With the growing elderly population, their needs including protection against the possibility of abuse should be looked into. Apart from the Domestic Violence (Amendment) Act 2012 which incorporates elders in a general statement covering 'any other relative' and 'incapacitated persons', there are no punitive measures for elders who may be abused. This act, gazetted in 1984, initially applied to physical and sexual abuse alone. This has now been amended to include psychological abuse as well, but still does not cover financial abuse or neglect (Attorney Generals Chambers Malaysia, 2012).

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The World Health Organization (WHO), of which Malaysia is a member, declared violence to be a public health problem through the World Health Assembly resolution 49.25 in year 2002 (World Health Organization, 2002). Further to this, The Lancet and the New England Journal of Medicine highlighted elder abuse as a growing issue and called upon all to meet the challenge of protecting the elderly from it (Campion, Lachs, & Pillemer, 2015; Lancet, 2011b). Malaysia, in response to this commitment, had set up a section within the Non Communicable Disease Division of the Public Health Programme, Ministry of Health, to specifically focus on abuse and mistreatment. This was the Mental Illness, Stress, Violence and Injury section (MESVIP), set up in year 2009, which originally and even currently, looks into child maltreatment as a primary concern.

Although abuse of children or battery of wives has been increasingly highlighted by the local media over the past few decades (New Straits Times, 2014, 2015; The Star, 2013, 2015a, 2015b), little has been mentioned about elder abuse, a phenomenon common in other countries as well (Lancet, 2011a). Hence, to acknowledge existence of this problem, a prevalence study needs to be conducted to determine the extent of this occurring, and identify associated factors, besides disclosure of abuse and perpetrator characteristics. This would help us understand the characteristics associated with the victim, perpetrator and the environment they are in within our local setting. Most emerging studies so far are from developed countries, where situations may be different due to differing cultural viewpoints, legislations and welfare systems.

As there have not been any such studies examining this phenomenon before in Malaysia, an initial prevalence study may be the best way to highlight this issue currently, to acknowledge its existence and probe delicately within the community. The demographic shift towards population ageing, which is being seen in Malaysia, most certainly endorses the need for a tool to enable health care workers to detect elder

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neglect and abuse (Kelly, Dyer, Pavlik, Doody, & Jogerst, 2008). Further to this, measures to ensure elders are thought of holistically with ageing as a planned process, beginning from mid-life onwards should be strengthened, as opposed to merely reaching a chronological age and then trying to manage illnesses and ailments that are present (Bowling & Dieppe, 2005).

1.4 Elder health needs and health care utilisation

Although no community based study on elder abuse has been carried out before in Malaysia, various other studies focusing on the elderly have been conducted (Hairi, Bugiba, Cumming, Naganathan & Mudla, 2010; Sherina, Rampal, Aini, & Norhidayati, 2005; Sidik, Rampal, & Afifi, 2004). This preliminary study aimed to identify and acknowledge the existence of elder abuse and neglect occurring locally, besides factors associated with this phenomenon including perpetrator characteristics, as not much is known to date. This will aid policy makers and health care providers in establishing better health care services for the elderly. This is especially so as the majority of the population have been shown to utilise government health care facilities. According to the National Health and Morbidity Survey conducted in 2011 (Institute for Public Health. National Institutes of Health. Ministry of Health Malaysia, 2012), 89.5% of rural inhabitants preferred to seek in-patient health care at government facilities, compared to 28.2% of urban city dwellers who preferred to seek private care. This is especially true of Bumiputera Malays and those with no formal education. For out-patient care, the majority or 59.6% preferred to go to the government facilities as well. The majority of this was actually formed by elders aged 70 years or more. Similar to in-patients, the majority were Bumiputeras, those with no formal education, and those who were widowed (Institute for Public Health. National Institutes of Health. Ministry of Health Malaysia, 2012).

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1.5 Successful ageing

With an increase in life expectancy as well as availability and utilisation of better health services amongst Malaysians, the ageing population is growing. Ageing in itself is evolving, with more emphasis on successful ageing, also known as active ageing or productive ageing. This term refers to health and ageing as not just a matter of being free from physical disease, disability and ailments but being in a good frame of mind, body and soul as one grows older. Various components such as having satisfaction in life, continued participation within the community, the importance of social networks, and quality of life, are all integral to successful ageing (Bowling & Dieppe, 2005; Bowling & Iliffe, 2006). Elder abuse prevention should thus be given due importance, to help ensure elders are able to lead a happy and healthy lifestyle in line with successful ageing.

It should be noted that the caregiver helping elders in the Malaysian context is generally not a paid employee unlike in Western countries but rather, an unpaid family member who assumes the responsibility of caring for an elderly person by virtue of family ties. This is an assumed responsibility that is inherent to most Asians, including Malaysians, regardless of ethnicity. The caregiver may or may not reside with the elderly, and even if not residing with the elderly person would possibly live nearby or check in on the elder every now and then. Having said this, some Malaysians do employ domestic helpers for household chores or even assisting the elderly with their needs, with the majority coming from neighbouring and less developing countries. This reduces their own caregiving burden, but the onus is more often than not on the family members.

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1.6 Elder Abuse in Malaysia

With the rapidly changing population demographics of the nation showing an ageing population, along with the even more rapid developmental pace of Malaysia seen over the past few decades in line with the various action plans of the nation to reach a developed status by year 2020 as well as to be a great nation by 2050 (Malaysian Administrative Modernisation and Management Planning Unit (MAMPU). Prime Ministers Department Malaysia, 2010), it is imperative that health needs of the elders are looked into. Firstly, it is important to ensure that elders are protected from harm in all senses, to promote and protect their health and well-being, before focusing on other curative strategies. This is as mentioned not only in the National Strategic Plan for Non-Communicable Diseases but also as a part of successful ageing (Bowling & Dieppe, 2005; Non-Communicable Disease Section. Ministry of Health Malaysia, 2010).

Elder abuse would be a taboo topic, perhaps due to the Asian culture of keeping such things under wraps. Filial piety is greatly valued and abuse would be embarrassing, especially when the majority of elders reside with their grown children or families and the abuser would likely be a person who is in a position of trust within the family circle. Implying abuse itself may be viewed as an insult to the structure of the family and admitting to it may be seen as bringing shame to the family (Dong & Simon, 2010; Dong, Simon, & Evans, 2010; Wang, 2005b; Yan & Tang, 2001).

The WHO, in its Global Status Report on Violence Prevention, had put forth various recommendations regarding violence prevention efforts, including elder abuse. These included strengthening data collection to emphasize the magnitude of the problem, formulating national level action plans, and integrating violence prevention into various health platforms, among others (World Health Organization, 2014b). This underscores the importance of conducting this study on elder abuse.

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1.7 Available data on elder abuse

1.7.1 Official data on elder abuse in Malaysia

The information in Table 1.1 below was obtained by searching the International Coding of Diseases (ICD-10) classification of diseases and diagnosis with the aid of record officers from the Medical Development Division, MOH. This was run through the National Informatics Centre database, generating the figures shown. The information is very scanty, showing the need for surveillance activities to pick up elder abuse cases. Although few in number, this parallels research findings from abroad, showing that psychological abuse is more prevalent than physical abuse. As signs and symptoms of abuse may not be visible, an active search for abuse in the form of screening is necessary to pick up the finer details that may be missed on a cursory health examination or visit.

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Table 1.1: Number of elder abuses cases reported in MOH facilities from year 2005 to 2010

Code	Item	Age 60 years and above											
		2005		2006		2007		2008		2009		2010	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
T74	Maltreament syndrome	1		3	5	2	2	1	5		5	1	1
T74.0	Neglect or abandonment										1		
T74.1	Physical abuse												
T74.2	Sexual abuse	1			5		1	1	5		4	1	
T74.3	Psychological abuse					1	1						1
T74.8	Other maltreatment syndromes												
T74.9	Maltreatment syndrome, unspecified			3		1							

Source: National Informatics Centre, MOH Malaysia

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1.7.2 **Reporting Elder Abuse**

There is a lack of data on how elder abuse is reported, unless the media were to be counted. Numerous accounts of elders being abandoned or neglected have surfaced in the newspapers over the years (Ebenezer, 2008; Sipalan, Lai, & Raman, 2012; The Star, 2012). To investigate this further in a scientific and structured manner, this study bears importance. Reporting, or rather, the disclosure of abuse by the elder is a key question once it is established that some forms of abuse has occurred.

1.8 International Data on Prevalence of Elder Abuse

Right from the World Health Organisation (WHO) to various scholarly articles published from other countries, the prevalence of elder abuse has been mentioned in different forms, but none from the local scenario. Being aware of the research and progress made by others serves to fuel the need to fill this gap locally. Elder abuse first came to light in the 1970s in the United Kingdom where the term 'granny battering' or 'granny bashing' was coined, but the United States was the pioneer to lead the way in studies conducted on elder abuse and neglect (Aravanis et al., 1993; Burston, 1975; Giurani & Hasan, 2000). More countries have joined the bandwagon since as they realise that ageing populations come inherent with increased health care needs and various social problems such as elder abuse.

A systematic review conducted of EAN in many countries shows that the prevalence of elder abuse appears to vary between 1.1% and 44.6% (Sooryanarayana et al., 2013). A WHO survey found that less than half of the countries surveyed have population based survey data on elder abuse, and most cases of elder abuse do not come to the attention of service care providers (World Health Organization, 2014b).

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1.9 Rationale of the study

To investigate the phenomenon of elder abuse in Malaysia, its associated factors and outcomes, the following aims and objectives have been put forward, to help develop and guide the conduct of the study.

1.10 Study objectives

The following general and specific objectives were derived:

1.10.1 General objectives

To examine elder abuse among rural community dwelling elders in Kuala Pilah district, Negeri Sembilan state, Malaysia.

1.10.2 Specific objectives

i. To establish the prevalence of overall abuse among rural community dwelling elders.

ii. To determine the factors associated with elder abuse.

iii. To describe the characteristics of abused elders and their reporting of abuse

iv. To describe perpetrator characteristics associated with elder abuse.

1.11 Significance of the study

1.11.1 Community based study

To the best of my knowledge, this study is the pioneer study in Malaysia to study EAN prevalence, associated factors, disclosure of EAN and perpetrator characteristics through face-to-face interviews with rural community dwelling elders. It would provide meaningful data to the local community, particularly the district health office and state

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health department on EAN in their community. It would also highlight the importance of screening for EAN, and pave the way for future longitudinal studies on EAN. Thus, it would aid not only the wider community, health care providers, and social workers but policy makers too.

1.11.2 **Role of the researcher**

Having direct contact with respondents in the fact-to-face interview sessions of the community based study, besides planning the study, facilitating the logistics, supervising and monitoring the interviewers involved gives the researcher a thorough understanding of the dynamics of the project. A systematic review and pilot study prior to the community based study was conducted so as to help in understanding the phenomenon of EAN and identifying the gaps in research both at the international level and in the local setting.

1.12 Summary

Chapter 1 therefore shows how and why it is important to study elder abuse in Malaysia and particularly so in the context chosen which was rural community dwelling elders in a selected district in one of the states of Malaysia. The research questions and objectives addressed are in line with current researches on elder abuse done so far, to give this study value among other research studies that have been conducted.

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CHAPTER 2 : LITERATURE REVIEW

2.1 About this chapter

Chapter 2 attempts to present a holistic review of elder abuse as it stands today. This is done firstly by reviewing the popular theories on elder abuse, the conceptual framework used, policies pertaining to elders in Malaysia and a literature search on the topic of elder abuse and neglect, both globally and locally. The literature search was undertaken from year 1990 onwards to maintain relevancy in today's scenario. The definitions commonly used, its prevalence, factors associated, disclosure and perpetrators of elder abuse are discussed. A systematic review was conducted on the prevalence and measurement of elder abuse among community dwelling elders, and the search strategy besides methods used are described in detail (See List of Publications for published paper).

2.2 Elder abuse theories

The various theories that have been put forth to explain the occurrence of elder abuse include the social exchange theory, feminist theory, political economic theory, psychopathology of the caregiver theory, role accumulation theory, situational theory, social learning theory, and the stratification theory (Abolfathi Momtaz, Hamid, & Ibrahim, 2013; Schiamberg & Gans, 2000). The social exchange theory maintains that two parties, the elder and caregiver, have a positive relationship or interaction whereby they give or receive items of value, whether tangible or not, from each other. It explains elder abuse by focusing on an elderly person's increasing needs or dependency on the caregiver, which may increase their risk of abuse, as the caregiver may be resentful of having to provide aid. The caregiver may also perceive that aid given should be reimbursed accordingly and may abuse an elder if they feel they have not been justly

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rewarded, or rather that the caregiver will continue to abuse an elder so long as they gain from the relationship. The feminist theory, on the other hand, pertains to spousal abuse whereby elder women are more likely to be abused as men are more powerful than females, wielding more resources both socially and financially. The political economic theory states that as elders retire from the active workforce, their independence too slowly is eroded. When they are slowly marginalised by family and society, their role is diminished, leading them to be more dependent on others, which could lead to elder abuse. The psychopathology of the caregiver theory states that caregivers with some existing behavioural problems such as alcohol abuse, substance abuse, depression or anxiety are more likely to abuse elders physically and verbally. The role accumulation theory points at a caregiver who is unable to manage various stresses in their own lives, who is therefore faced with increasing conflict on the family front. They may then vent out their frustrations on the elder in the form of abuse. The situational theory is the most common, stating that an overburdened and stressed caregiver, unable to cope with caring for an elder, would invariably abuse the elder. These two theories are further explained by economic pressures the caregiver may be facing, lack of community support, and increasing care needs of the elder, which all serve to heighten caregiver stress and frustration. The social learning theory, or the transgenerational theory, states that a person abused as a child may in turn abuse their parents when they are old. This is because they may perceive violence to be an acceptable behaviour to stressful situations, as this theory states that violence is a learned behaviour. This may also explain some cases of spousal abuse, where the abusive partner becomes disabled or ill. The previously abused elderly person may now abuse the partner. The stratification theory says that a lowly educated person who is at the bottom of the social hierarchy in society is usually the caregiver. In this context,

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they feel they have to exhibit some power over their elderly charge by abusing them (Abolfathi Momtaz et al., 2013; Aravanis et al., 1993; Giurani & Hasan, 2000).

However, in other literature, some of the assertions put forth by these theories are not supported, namely that elders with cognitive impairment, depression, increasing dependency, or chronic diseases are more likely to be abused (Brandl & Cook-Daniels, 2002). Neither is the caregiver stress theory or caregiver burden theory supported with regards to elder abuse. The intergenerational transmission of violence in fact may support why an abused child grows up to abuse their own children later on, but not abuse the elderly parents who are now under their care. However, one theory consistently agreed upon is the psychopathology of the caregiver, whereby it is stated that elder abuse results from the deviance and dependency of abusers on their victims. Elder abuse was also said to have more in common with spousal abuse rather than child abuse (Brandl & Cook-Daniels, 2002).

The model or framework that best helps to explain elder abuse in relation to this study appears to be the ecological framework (Ananias & Strydom, 2014; Krug et al., 2002; Schiamberg & Gans, 2000). The idea was to measure the outcome of elder abuse and all its subtypes as per the definition used, and examine the various factors associated with EAN. This is best conceptualized by the ecological framework referred to by the WHO as it encompasses all the different levels mentioned, employing a multidimensional view of interpersonal violence perpetrated towards elderly persons. This is shown in Figure 2.1 and Figure 2.2.

2.3 Conceptual framework

Interpersonal violence is violence perpetrated between individuals, which could be between family members, friends, intimate partners, acquaintances and strangers, and includes various types such as child abuse, youth violence, sexual violence, intimate

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partner violence, and elder abuse. Interpersonal violence is therefore a risk factor for health and social problems across the life span. Based on Figure 2.1 below, elder abuse is but one type of interpersonal violence. Interpersonal violence is divided further into family and community violence, where elder abuse falls into the former category. Elder abuse has been defined in the previous chapter, in section 1.4.

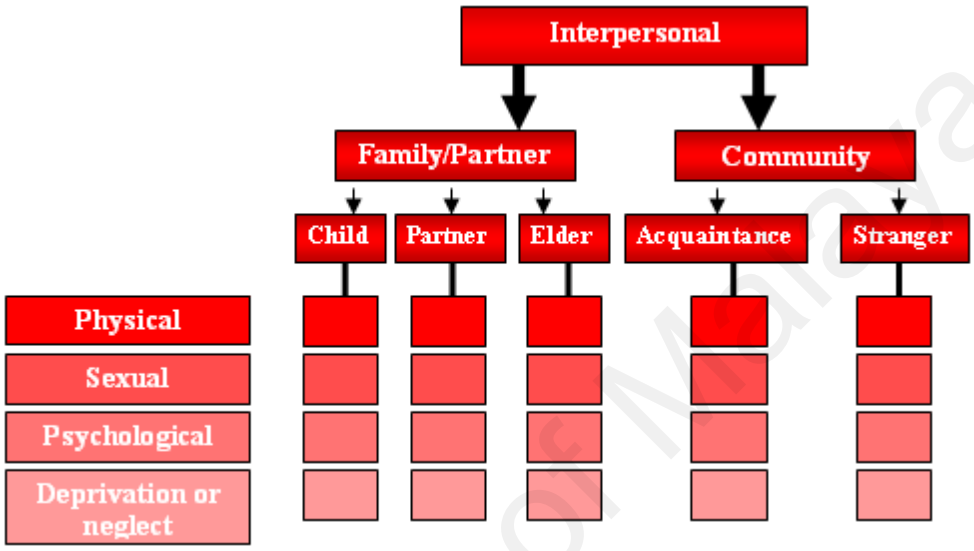

Figure 2.1: WHO framework of interpersonal violence

The framework in Figure 2.2 shows the interplay of factors at different levels. These various factors are studied in order to understand their association with elder abuse. These factors are nested within the hierarchy of the WHO ecological framework of violence that can be used to describe elder abuse (World Health Organization, 2002). Those highlighted in bold are the factors studied in this survey. The ecological framework not only identifies the problem of EAN and factors likely to be associated with it but also helps to explain the complex nature of EAN. Because of this complex nature of EAN, the ecological framework allows a better understanding of the interrelationships and interdependence between the different factors associated with EAN. Living arrangements and social support available to the elder have been characterised as environmental factors in previous research; this parallels the societal and community level in the ecological framework (Johannesen & LoGiudice, 2013a).

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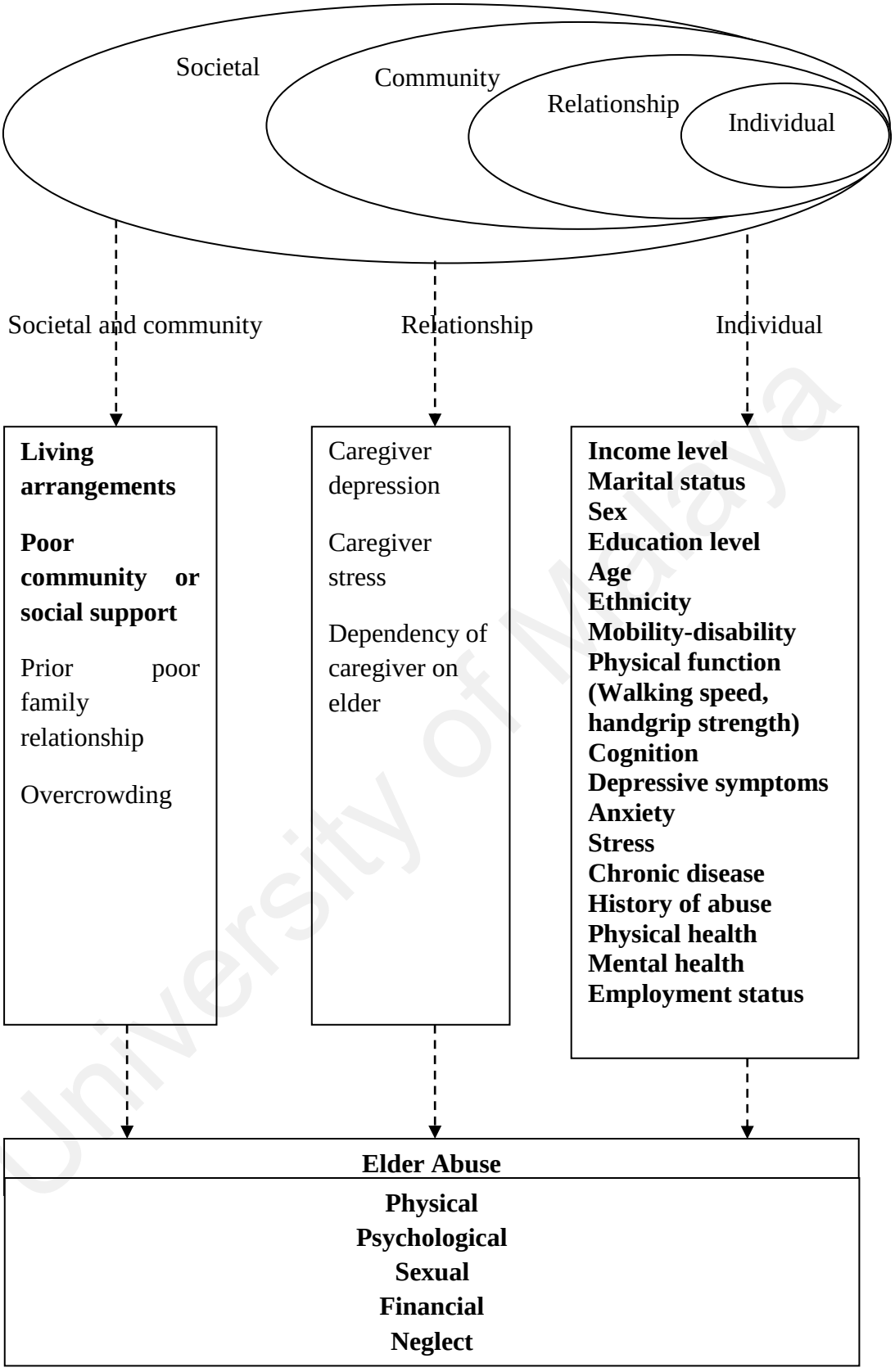

Figure 2.2: WHO ecological framework of violence and association with elder abuse

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2.4 Policies for elders

Before 1995, there was no specific policy for older persons in Malaysia. Health and social concerns came under the purview of the National Social Welfare Policy (1990), where families played the primary role in the care of the elderly, based on the virtue of 'filial piety' (Department of Social Welfare Malaysia, 1990).

A more comprehensive and holistic plan came later, when the National Policy for the Elderly was prepared in 1995 (Ministry of National Unity and Social Development Malaysia, 1995). An Action Plan was formulated, with both intersectoral and multisectoral involvement. The health component was developed by the Ministry of Health, who identified health care of the elderly as the main or priority concern in the National Plan of Action for Health Care of Older Persons in 1997 (Family Health Development Division. Ministry of Health Malaysia, 1995). In 2008, the National Health Policy for Older Persons was established (Family Health Development Division. Ministry of Health Malaysia, 2012). Its implementation was overseen by the National Advisory and Consultative Council for Older Persons.

In general, the Malaysian policies for elderly persons are very comprehensive and holistic, including both health and social needs of the elder. However, there exists a lot of implementation issues in the activities carried out, in terms of translating policies into actual practice (Ambigga et al., 2011). Some of the issues associated with the National Policy for the Elderly were a focus on the welfare of older persons, where the main party involved was the Department of Social Welfare.

The revised National Policy for the Elderly has six strategies pertaining to elders (Ministry of Women Family and Community Development. Malaysia, 2011). These are respect and self-worth, independence, involvement, care and protection, research and development, and lastly, an action plan formation. The first strategy includes enabling

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the elderly to live with respect and self-worth as well as being safe and free from oppression and abuse. The second strategy, independence, includes enabling the elder to continue living with their family and society as long as possible. In line with the first strategy, ensuring elders are safe and free from oppression and abuse, that this study is proposed. This research is in accordance with performing research and development pertinent to elders, and ensuring their care and protection. It is hoped to provide better information to assist with policies regarding elders, especially as a global survey found that most countries lack national level data on violence against elders, despite most having policies pertaining to elders (World Health Organization, 2014a).

2.5 Local research on elder abuse

Although there are no screening mechanisms for elder abuse to date in our society, there are however, a few works by local researchers on elder abuse. "Elder Abuse: A Silent Cry" that appeared in the Malayan Journal of Psychiatry (Ebenezer, Kamaruzaman, & Low, 2006) highlighted the absence of any local information or data on elder abuse and lack of our health care system in detecting suspected elder abuse besides no mandatory reporting of elder abuse, and called for our community based health care to be expanded. Another paper in the Malayan Law Journal highlighted the importance of sociodemographic profiling of elders who are abused to allow better identification of such phenomena. It recognizes that currently there are no laws to prevent elder abuse, besides the provision of the Domestic Violence Act 1994 which by default covers all family members including elders (Muneeza & Hashim, 2010).

A recent qualitative study examined the perceptions of elder maltreatment among community dwelling Malaysians and found that respondents' life experiences shaped their perceptions of elder maltreatment (Hamid, Za, Mansor, Yahaya, & Ali, 2010).

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They felt that older respondents are more susceptible to negative episodes than younger people, that the lower threshold of maltreatment has not been recognized as such, and without the element of violence, neglect is well tolerated by Malaysians. This was followed up by an attempt to develop a tool to measure elder abuse in Malaysia; however this is a short screening tool with ten questions, measuring abuse as a whole. Although it has items assessing psychological, financial and physical abuse, only a final score on overall abuse is able to be ascertained from this brief instrument. Furthermore, sexual abuse and neglect are not included here (Hamid et al., 2013). Being short in nature, this particular tool could be used to merely raise suspicion of abuse, before being followed up by a more comprehensive measurement tool, in order to avoid underestimating the prevalence.

Further to this was the pilot testing of the questionnaire and feasibility of the community based project undertaken here, in which urban poor elderly were interviewed and a prevalence of 9.6% of elder abuse was ascertained in this sample of 291 elders. This was found associated with depression and current employment by as much as three times respectively (Sooryanarayana et al., 2015) (see Appendix A for published paper).

Essentially, all these works identified a lack of awareness on elder abuse within our community and even if it was to be identified there are no proper detection measures or screening in place, nor are there established frameworks in place for elder abuse reporting. To add to this rather limited body of knowledge, this study among rural community dwelling elders shall be the pioneer to examine and study the prevalence of abuse of elders in a comprehensive manner in our community setting.

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2.6 Research on elder abuse from other countries

Many such studies have been done in the western world, even East Asia, with researchers from Thailand, India, China, Japan, Hong Kong, Taiwan and Korea successfully recognizing the problem of elder abuse (Chokkanathan & Lee, 2006; Chompunud et al., 2010; Nakanishi et al., 2009; Oh et al., 2006; Yan & Tang, 2004), but none in Malaysia till this study. The Lancet had highlighted elder abuse as a growing issue and called upon all countries to meet the challenge of protecting the elderly from it (Lancet, 2011b). As such, the following section presents a systematic review to provide a comprehensive review of the prevalence and measurement of elder abuse in other countries.

2.7 Phase One: Systematic review

In order to study this phenomenon thoroughly, understanding how elder abuse is quantified or measured is key to performing a successful study here. As such, this was the focus of this review on prevalence and measurement of elder abuse in the community (Sooryanarayana et al., 2013). This greatly aided in forming and implementing the proposed study.

2.7.1 Search strategy

A systematic search of research on elder abuse was conducted using three electronic databases (MEDLINE via PubMed and Ovid besides CINAHL via EbscoHost) with various combinations of the key terms as shown in Figure 2.1. Additional studies were identified by screening references of finalised studies, besides an additional hand search via the library. The studies conducted previously in other countries were chosen based on the following criteria; 1) samples should be community dwelling elders and not

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institutionalised elders, preferably recruited from within the community itself; 2) elders from health care or other facilities weres allowed as long as they were actually living at home within the community; 3) the age cut-off to define elders was in accordance to respective countries' definition, taking into consideration variation across countries and cultural differences; 4) samples were subjected to a self-completed questionnaire or interviewed via telephone or face-to-face on elder abuse, and was part of empirical research and not a review of other studies done, between years 1990 and 2015. The selection process of the studies is as summarized below in Figure 2.1. Finally, 34 articles were included in this review.

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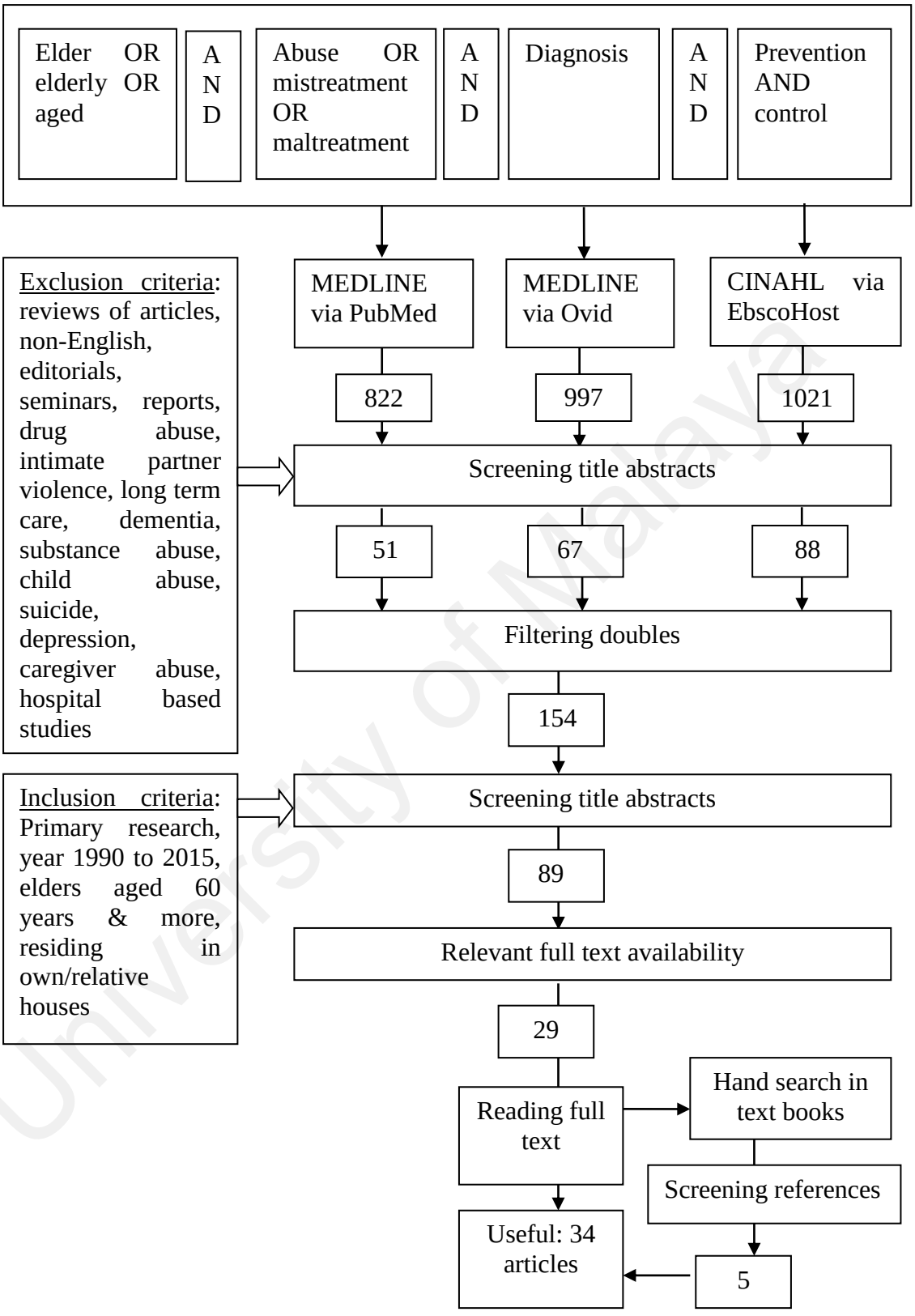

Figure 2.3: Search strategy flowchart

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2.7.2 **Critical appraisal of studies**

In order to evaluate the quality of findings from the chosen 34 articles, a critical appraisal of these studies was done, using "Guidelines for evaluating prevalence studies" (Boyle, 1998) to permit better comparisons between studies, as shown in Table 2.1. Many studies were found lacking in rigorous study methodology, compromising on reliability and validity, or not explaining details of their sampling and selection methods. Generalizability of findings to entire communities was sometimes lacking with five studies not having defined their target populations, with only eleven studies having elderly respondents' characteristics matching the target populations. Numerical estimates such as odds ratios were also not presented in half the studies. However, given the need to review the literature thoroughly, with elements from various cultural backgrounds, these studies were chosen to give a better idea of the findings from various parts of the world.

Table 2.1: Critical appraisal of studies on prevalence and measurement of elder abuse
(See Appendix A)

2.7.3 **Assessment of elder abuse**

Various aspects were seen to possibly influence the outcome of elder abuse. Some issues which are currently recognized are those pertaining to a non-uniform definition of abuse, elder age cut-off, measurement discrepancies, differing psychometric properties of the various tools used, cultural issues, regional & development status variance in terms of prevalence, adoption of various subtypes including one or more of psychological, neglect, financial, physical as well as sexual abuse, methods of elder recruitment into the study, differing cognitive functional cut-offs, co-existence of depressive symptoms, physical dependence or mental illness and perhaps most

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importantly, the lack of a gold standard or a standard tool for identification and measurement of elder abuse.

Not only elder abuse but the means of assessing depression, social support, physical dependence and cognition of elders differed in various studies which led to further variation when trying to compare and contrast between them. Age cut-offs vary besides methods of recruitment of elders, sometimes including those who are recipients of social or health services, or indeed truly representative of the general population via household or community based studies. These are further discussed below.

2.7.3.1 Methodology of various research

From the literature, it is seen that various tools or instruments were used to assess elder abuse, as there is no one gold standard tool. In employing these tools, various methods were used. Face-to-face interview remains the most common method used (Acierno et al., 2010; Beach et al., 2005; Biggs et al., 2009; Buri et al., 2006; Chokkanathan & Lee, 2006; Chompunud et al., 2010; Christie et al., 2009; Comijs, Pot, Smit, Bouter, & Jonker, 1998; Cooper et al., 2006; Dong et al., 2010; Garre-Olmo et al., 2009; Jordanova, Markovik, Sethi, Serafimovska, et al., 2014; Kivelä, Köngäs-Saviaro, Kesti, Pahkala, & Ijäs, 1992; Lachs et al., 1998; Lin & Giles, 2013; Naughton et al., 2012; Ogg & Bennett, 1992; Pérez-Cárceles et al., 2008; Shugarman et al., 2003; Wang, 2005a; Yan & Tang, 2001, 2004), with a few using telephone interview with elders (Acierno et al., 2010; Burnes et al., 2015; Dong et al., 2010; Garre-Olmo et al., 2009; Gil et al., 2014) while in two studies, elders were asked to fill up a postal questionnaire on their own (Buri et al., 2006; Kivelä et al., 1992), or complete a self-reported questionnaire in person (Dong & Simon, 2010; Iecovich, Lankri, & Drori, 2004; Puchkov, 2006).

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Three studies actually utilised multiple modes of answering the questionnaire, employing mailing the questionnaire first followed by an interview two weeks later (Kivelä et al., 1992) or asking elders to complete the questionnaire themselves and if unable to, only then administering the questionnaire via interview (Puchkov, 2006), or through a two stage screening process whereby a structured presentation and discussion session was held first, through which those at risk were identified, and then asked to complete a questionnaire, screened by social workers thereafter and interviewed if deemed at risk (Iecovich et al., 2004).

Occasionally the interview was conducted by qualified medical personnel, such as a family medicine doctor during a hospital visit, but most of the time it was undertaken by the researcher or trained interviewers who may or may not have been medical personnel. The level of expertise and skill of the interviewer could have influenced the outcome under study.

Elderly were interviewed in both settings, health care based facilities and community based elderly. Those who were interviewed in the hospital or health care setting were mostly those who were there on an outpatient visit and hence perhaps could be thought of community dwelling elderly in a larger sense, and were mostly not hospitalised. Community dwelling elderly was chosen as this is where the majority of elderly reside and so was thought to be more representative of the general population of elders. Those institutionalised were not studied in the literature review as they represent a different demographic and different interplay factors at various levels. That being said, the majority of Malaysian elderly reside within their own or relative's homes.

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2.7.4 **Measurement tool**

A vast proportion of studies quantified elder abuse and neglect by using tools which had not been validated. Not surprisingly, this is where the higher prevalence rates of elder abuse of up to 44.6% are found. Almost half the studies reviewed have some sorts of reliability or validity analysis performed, before the tool was used to screen for elder abuse, giving prevalence rates of 5% to 22%. Some tools were shorter, intended to pick up a suspicion of abuse only, while some were more comprehensive, with many questions or domains covering abuse.

2.7.5 **Prevalence of elder abuse**

2.7.5.1 Variation in definition of abuse and elder age cut-off

The definition of elder abuse varies, with some research referring to the occurrence of neglect, financial, psychological, physical or sexual abuse, in varying combinations. Sometimes psychological abuse and verbal abuse were considered as two separate categories while in some cases they were considered the same. This could have led to varying prevalence rates if different terminologies were used. Elder age was sometimes taken as 60 years and sometimes as 65 years, or even more, usually depending on the age of retirement followed by the respective country. Table 2.2 shows the prevalence of elder abuse obtained in each study, as well as how it was measured.

Overall prevalence estimates vary widely, from 1.1% to 44.6%, however this extremely high upper limit found in Spain was obtained using screening tools which were not validated for that particular setting. The varying definitions, classification and terms used to describe elder abuse resulted in differing estimates obtained which may not be comparable across studies. Generally, the Asian and European studies had a higher prevalence than those in the USA and UK or Ireland, most recently in Hong Kong,

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China at 27.5% (Yan & Tang, 2004), and rural China with an overall higher prevalence of 36.2% (Wu et al., 2012), with the exception of Lin and Giles (2013) in the USA focusing on the Latino minority population, at 40.4%. Generally, psychological abuse of elders appears to be most common, accounting for up to 44.18% of abuse, followed by neglect (0.2 to 31.3%), financial abuse (1.4 to 20.6%), physical abuse (0.1 to 11.7%) and lastly sexual abuse (0.6 to 9.0%).

Table 2.2: Prevalence and measurement from selected elder abuse studies (See Appendix B).

2.7.5.2 Economic development

Countries from the more economically developed group, mainly the Western countries, had lower overall prevalence of elder abuse except Spain as mentioned in section 2.5.5.1, and one study focusing on minority Latinos in the USA (Lin & Giles, 2013) compared to those in the developing category, including upper middle income and lower income countries in Asia. These studies in Asian countries generally had a higher overall prevalence of elder abuse, especially so for psychological abuse. This is shown in Table 2.3 below.

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Table 2.3: Evidence based table showing prevalence of elder abuse by level of development

Level of development (Income level) *	Country	Study	Overall prevalence (%)	Neglect (%)	Psychological including verbal (%)	Physical negligence (%)	Financial (%)	Emotional (%)	Physical (%)	Sexual (%)	Violate personal rights (%)	Mix (%)
High	UK	Ogg J et al (1992)			6-11		2-5		1-5			
		Biggs et al (2009)	2.6	1.1	0.4		0.6		0.4	0.2		
	Finland	Kivela SL et al (1992)	5.4									
	Netherlands	Comijs et al (1998)	5.6	0.2	3.2	1.2	1.4					
	Ireland	Naughton et al (2011)	2.2	0.3	1.2		1.3		0.5	0.05		
	USA	Pillemer K et al (1998)	3.2, 2.6**	0.4	1.1							
		Buri H et al (1999)	20.9									
		Shugarman et al (1997)	4.7									
		Fulmer et al (2000)	1.1									
		Acierno et al (2010)	11.4	5.1			5.2	4.6	1.6	0.6		
		DeLiema et al (2012)	40.4	11.7	24.8		16.7		10.7	9.0		30.7
		Burnes et al (2015)	4.6	1.8	1.9				1.8			
	Spain	Perez Carceles et al (2006)	44.6	31.1	20.7	17.0	7.2	7.0	2.4	1.3		
		Garre Olmo et al (2007)	29.3	16.0	15.2		4.7		0.1			
	Europe	Cooper et al (2006)	5.0									
	Portugal	Gil et al (2015)	12.3	0.4	6.3		6.3		2.4	0.2		
	Israel	Iecovich et al (2004)	0.5**	3.3	10.8		7.5		11.7	0.8		
	Hong Kong,	Yan et al (2004)	27.5		26.8				2.5		5.1	
	China	Yan et al (2001)	21.4		20.8				2.0-5.0		1.0-5.0	
	South Korea	Oh J et al (1999)	6.3	2.4	3.6		4.1	4.2	1.9			
Upper	Macedonia	Peshevska (2014)		6.6	25.7		12.0		5.7	1.3		
middle	Turkey	Kissal et al (2011)	13.3	8.2	9.4		2.1		4.2	0.9		
		Ergin et al (2012)	14.2	7.6	8.1		3.5		2.9	0.4		
	Russia	Puchkov et al (2006)	28.6									
	Thailand	Chompunud et al (2010)	14.6	2.9	41.2		20.6		2.9			32.8
	Taiwan,China	Wang JJ et al (2005)			22.6							
Low	India	Chokkanathan et al (2006)	14.0	4.3	10.8				4.3			

*Based on the World Bank development status classification, the USA, UK, Canada, Netherlands, Finland, Portugal, China, Israel, Hong Kong SAR China, South Korea, and 11 European countries referred to in one study (Germany, France, Italy, Sweden, Norway, Iceland, Denmark, Finland, Czech Republic, the UK, and Netherlands grouped together) are in the high income country category; Macedonia, Thailand, Turkey, Russia and Taiwan ROC China in the upper middle income country category, while India is in the lower middle income country category **Incidence rate

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2.7.5.3 Individual types of abuse

Psychological abuse seems to be the most prevalent, more so in Asian countries, followed by neglect, financial abuse, physical abuse and lastly, sexual abuse. The definition and quantification of neglect varies widely when compared to the other forms of abuse. Neglect, perhaps by virtue of being a failure to fulfil certain caregiving obligations by the caregiver, may be harder to quantify or assess. Of 19 studies assessing neglect, seven had similarities in that it was assessed by failure of the elder to partake of an activity of daily living (ADL), whether basic or complex, by virtue of failure to receive help from the caregiver to perform this activity (Biggs et al., 2009; D. Burnes et al., 2015; Comijs et al., 1998; Lin & Giles, 2013; Naughton et al., 2012; Pillemer & Finkelhor, 1988). A further seven studies did quantify ADL however it was as a factor associated with the outcome of neglect rather than to measure neglect itself (Buri et al., 2006; Burnes et al., 2015; Chompunud et al., 2010; Christie et al., 2009; Cooper et al., 2006; Gil et al., 2014; Kissal & Beser, 2011). In other studies, although the wording may be different, the concept measured is the same.

2.7.5.4 Study design

All these studies reviewed employed a cross-sectional study design, with the exception of one in the United States of America, which was a prospective cohort study that followed the outcomes of the elderly respondents over a period of nine years (Lachs et al., 1998).

2.7.5.5 Overall findings of the review

The variation in the prevalence of elder abuse is quite marked, thereby underscoring the need for a more standard definition of elder abuse and the way in which it is quantified. By doing so, comparison among different studies may be done, to enable us to understand further the patterns of elder abuse, its associated factors and how to tackle this issue. Further primary studies are needed to do so.

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2.8 Factors associated with elder abuse

Overall, the prevalence of abuse varied across countries with different economic development levels, or culture. However, it generally tends to be highest among the oldest age groups, and among the female sex. Older females are more susceptible to abuse than males, which could be explained by the longer life span of females. Age-wise, the oldest-old are more likely to be abused than young-old. Factors such as elder cognition, depression and dependency appear to be related to the outcome of elder abuse. Caregiver depression and stress also seem to be linked to elder abuse, upon examination either directly or indirectly via elder reporting.

2.8.1 Sociodemographic factors of the elder

2.8.1.1 Age

Age of the elder person seemed to have an influence on the outcome of abuse. Even among elderly persons, the oldest old (above 75 years old) seem to be more vulnerable to abuse compared to the younger categories of elder persons (Buri et al., 2006; Canadian Task Force, 1994; Dong & Simon, 2010; Gil et al., 2014; Iecovich et al., 2004; Lachs et al., 1998; Oh et al., 2006; Pérez-Cárceles et al., 2008; Shugarman et al., 2003; Yan & Tang, 2004) where Yan and Tang (2004) even showed that the oldest old are more likely to be verbally abused, physically abused or suffer elder abuse overall, while Iecovich et al. (2004) showed that younger elders aged 60 to 75 were more susceptible to physical and mental abuse and those aged over 75 more at risk of financial abuse and neglect. The exception to this general finding is seen in a few studies, where Acierno et al. (2010) found that elders younger than 70 were actually more predisposed to suffering emotional and physical abuse than their older counterparts, Lin and Giles (2013) found elders in the younger age category to be more

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predisposed to psychological, physical or sexual abuse, and a recent study in New York State, USA found that elders who are older are less likely to be abused physically, emotionally or neglected (Burnes et al., 2015).

2.8.1.2 Sex

Elder females largely seem to be more at risk of abuse than elder males, especially in terms of verbal, physical and neglect (Chokkanathan & Lee, 2006). The preponderance among females could perhaps be explained by the longer life expectancy of females in general, or by virtue of females largely not working and therefore being dependent on others. Only two studies were found to describe male elders as more likely to be abused than female elders (Pillemer & Finkelhor, 1988; Wu et al., 2012), explained by the fact that older men who are widowed are more likely to remarry, and this leads to older men cohabiting with someone else. In the study by Pillemer and Finkelhor (1988), shared living arrangements were found to be a factor associated with increased odds of elder abuse by as much as three times. Also, older males may be frail and therefore more vulnerable to abuse. Lower limits of violence were seen in elder men compared to elder females, hence leading to more reporting or detection of elder abuse towards females by social services and other agencies. In China, where social and welfare services are lacking, and the family is the main source of support for elders, elder males were more likely to be neglected by caregivers compared to elder females, possibly as elder females are respected more as they help more with household chores like rearing grandchildren or cooking (Wu et al., 2012).

2.8.1.3 Marital status

Marital status of elders is another feature showing mixed results, as Wu et al. (2012) showed that elders who are widowed, divorced, single or separated are more likely to be abused, mirrored by Iecovich et al. (2004) and Burnes et al. (2015) while others show that those widowed, divorced or never married were actually less likely to be abused by

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virtue of probably not living with someone else where a shared living situation was found to be a factor predisposing towards abuse (Pillemer & Finkelhor, 1988).

2.8.1.4 Ethnicity

Ethnicity or race differences associated with elder abuse were mostly apparent in the American studies. Those with minority racial status were twice as likely to suffer from neglect (Acierno et al., 2010). African Americans are not only three times more likely to report self-neglect than whites, but also sustain a higher degree of self-neglect, even after adjusting for income and education (Dong et al., 2010). If abused elders were followed up, it was found that non-white Americans actually had a higher mortality risk among those with verified self-neglect or those who were subjected to elder abuse by as much as 1.7 times and 3.1 times respectively (Lachs et al., 1998). The only exception to this rule was a recent study in New York State which found that Hispanic elders had lower odds of being neglected, possibly because of underreporting, or rather because of their strong cultural values that uphold family cohesiveness and promote filial piety (Burnes et al., 2015). In a more heterogeneous population like Israel, elders born in American-European countries were more at risk of physical abuse or neglect, while those born in Asian-African countries were more at risk of mental and financial abuse, possibly reflecting the different cultural background. Newer immigrants to Israel were also at higher risk of neglect than those who had been living there for more than 15 years (Iecovich et al., 2004). Studies from India, Thailand, Korea and China were all done in homogenous populations so comparisons on ethnic groups was not possible (Chokkanathan & Lee, 2006; Chompunud et al., 2010; Olshansky & Ault, 1986; Wang, 2005a; Wu et al., 2012).

2.8.1.5 Education

Generally, a lower level of education was significantly associated with elder abuse. This is possible as they are not aware of the various services able to help them or means of

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protecting themselves. Elders with no schooling were more likely to be abused than those who had attended school; elders receiving more years of schooling showed lesser frequencies of abuse (Gil et al., 2014; Oh et al., 2006). The higher odds of abuse among those with lower levels of education was as much as 2.5 times more for overall abuse (Kissal & Beser, 2011). Lower levels of education was significantly associated with a higher risk of mortality (Lachs et al., 1998). The only exception was a study exclusively targeting the minority Latino community in the USA which found those with higher education levels to be predisposed to physical, psychological or sexual abuse by as much as five times more, possibly explained by this community being a high-risk subset of the general population in the first place (Lin & Giles, 2013). Another study in New York State, USA which had majority Caucasian elderly respondents, inexplicably found that those with lesser levels of education had lower odds of experiencing emotional abuse and physical abuse (Burnes et al., 2015).

2.8.1.6 Income

In general, lower socioeconomic background or lower levels of family or household income were significantly associated with elder abuse, possibly as the elder is thought to be a burden on the family due to their financial dependency (Acierno et al., 2010; Buri et al., 2006; Burnes et al., 2015; Chokkanathan & Lee, 2006; Chompunud et al., 2010; Dong & Simon, 2010; Dong et al., 2010; Jordanova, Markovik, Sethi, Serafimovska, et al., 2014; Oh et al., 2006; Shugarman et al., 2003; Wang, 2005a; Wu et al., 2012) as well as the increased mortality risk among those abused elders (Lachs et al., 1998). Those elders still employed and receiving wages appear to be at higher risk of psychological abuse (Acierno et al., 2010), and about one and a half times more for both neglect and financial abuse (Wu et al., 2012). This was explained by the fact that these elders are possibly still working in various labour-intensive jobs because of lack of financial support or care from their adult children.

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2.8.1.7 Living arrangements

Living arrangements show that elderly persons not residing with anyone else are less likely to be abused than those who do stay with others, such as spouse, children, grandchildren, in laws or other relatives. Cohabiting is a norm in most Asian countries yet it is a factor significantly associated with higher odds of elder abuse, by as much as four times when staying with the spouse and children (Kissal & Beser, 2011), probably due to the increased opportunities for contact between the caregiver and the elder, increased friction in relationships, or perceived burden on the part of the caregiver (Chokkanathan & Lee, 2006; Comijs et al., 1998; Iecovich et al., 2004; Jordanova, Markovik, Sethi, Serafimovska, et al., 2014; Oh et al., 2006; Pillemer & Finkelhor, 1988; Yan & Tang, 2004). In Spain, Pérez-Cárceles et al. (2008) has mixed findings of elders living with children either in their homes or in a rotational manner, as well as elders living alone, both predisposing to elder abuse by as much as ten times. On the other hand, research in rural China found that living alone was associated with a higher odds of elder abuse, as it is customary for the elder to reside with the oldest son and his family, and by staying alone the elder most likely feels neglected or isolated by adult children (Wu et al., 2012). In Malaysia, three quarters, or most of the elderly, reside with family members, usually spouses and adult children (DaVanzo & Chan, 1994; Martin, 1989).

2.8.1.8 Employment

Current employment status of the elder was a factor described in some studies, whereby those elders earning wages or receiving an income appear to be at higher risk of psychological abuse (Acierno et al., 2010), and about one and a half times more for both neglect and financial abuse (Wu et al., 2012). This is in contrast to other studies which found that unemployment rather than employment is associated with neglect (Iecovich

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et al., 2004) or found to be not significantly associated with elder abuse (Yan & Tang, 2004).

2.8.2 **Physical function status of elders**

Various measures of functional limitation for both the upper and lower extremities among older persons have been proposed. The purpose being to measure objective indicators rather than self-reported measures of health, to link impairments with functional limitation and disability among elders, in line with the Nagi theoretical pathway from disease to disability (Guralnik & Ferrucci, 2003). Further to this, more recent studies indicate that decline in physical function is associated with a higher risk of elder abuse. This decline in physical performance testing was noted by a measured walk over a specified distance, tandem stand and chair stand, and found associated with as much as 1.13 times times higher odds of abuse. This same study also showed that a decline in self-reported measures of physical function through the Katz, Nagi and Rosow-Breslau scale scores was also found associated with increased odds of elder abuse, by 1.29, 1.30 and 1.42 times respectively (Burnes et al., 2015; Dong, Simon, & Evans, 2012).

Walking speed or gait speed is a simple measure that can be carried out, requires a stopwatch and a measured distance set for the older person to walk at usual pace. Its ease of use as shown in various epidemiological studies makes it an optimum tool for studies measuring health, functional status and in the research done by Studenski et al. (2011), even survival, where better gait speed predicts better survival.

Other studies support the use of gait speed at usual pace over short distances of 4 metres in community dwelling elders as a risk factor indicating disability, cognitive impairment, falls, institutionalisation, and even mortality (Bohannon & Andrews, 2011;

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Van Kan et al., 2009). Gait speed was a predictor of mobility, disability and the onset of activity of daily living (ADL) impairment, where slower gait speeds increased the risk of persistent lower extremity limitation by one and a half times, as opposed to Studenski et al. (2011) who classified gait speed into cut-points, which was done to assess mortality (Van Kan et al., 2009). Furthermore, different cut-points are used for able bodied and disabled persons.

Poorer handgrip strength was associated with higher risk of mortality and other health related outcomes such as disability, functional limitation and functional dependence. While a causal relationship could be drawn between handgrip strength predicting disability, handgrip strength is an indicator of other variables or health related factors such as frailty in the older person. It is commonly measured with a handheld dynamometer (Bohannon, 2008; Giampaoli et al., 1999; Rantanen et al., 1999). Both walking speed and handgrip strength are objective measures of physical function status of elders.

2.8.3 **General health status of the elder**

General health status of the elder was reviewed in terms of being a factor associated with EAN, rather than as a consequence of EAN. General health of the elder, having both mental and physical components, was seen to affect the outcome of abuse in different ways. It was put forward differently towards elders, with some studies choosing to measure these two components via the quality of life assessment, or by asking directly about physical impairments or function, worsening health status, lower mental health status, lower physical health status, having chronic medical conditions, or perceiving poor health in general.

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2.8.3.1 Physical health

Subjective rating of poor physical health was found to be associated with higher odds of potentially harmful caregiver behaviour (Beach et al., 2005; Chompunud et al., 2010; Kivelä et al., 1992), with those elders suffering poorer health having between one and a half to four times higher odds of being neglected or abused (Acierno et al., 2010; Burnes et al., 2015; Chokkanathan & Lee, 2006; Pillemer & Finkelhor, 1988) Worsening of health was also associated with a higher suspicion of elder abuse (Biggs et al., 2009; Canadian Task Force, 1994; Pérez-Cárceles et al., 2008).

2.8.3.2 Impairment in physical function or disability

Having a functional disability in terms of inability to carry out daily activities, assessed using the Katz ADL, was significantly associated with elder abuse (Beach et al., 2005; Dong & Simon, 2010; Gil et al., 2014) by as much as two times (Acierno et al., 2010; Gil et al., 2014) to four times (Pérez-Cárceles et al., 2008), as well as higher risks of mortality (Lachs et al., 1998). Those studies which used both activities of daily living and instrumental activities of daily living as measurements of physical heath also found that these were significantly associated with elder abuse (Lin & Giles, 2013; Oh et al., 2006). Dependency of the elder on the caregiver was found to be associated with three times more physical abuse, as well as one and a half times more verbal abuse and overall abuse (Yan & Tang, 2004). A physical disability was associated with nearly twice the odds of psychological abuse (Wu et al., 2012). The Katz index of ADL and IADL was popularly used as it could be used with elders without the help of the caregiver and because of its reliability in primary care settings (Pérez-Cárceles et al., 2008). Increased functional dependence of the elder, assessed via the Barthel's Index, was found to be associated with higher odds of the elder experiencing psychological abuse (Wang, 2005a). Elders with greater functional level impairment were found associated with having greater odds of physical and emotional abuse, but not neglect, in

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one study which utilised the Duke Older American Resources and Services (OARS) ADL and IADL (Burnes et al., 2015). Generally, those elders who were frail and disabled suffered neglect as well as all types of abuse more than those elders who were functionally independent (Iecovich et al., 2004). Occasional bladder incontinence was found linked with nearly twice the odds of psychological abuse (Garre-Olmo et al., 2009).

2.8.3.3 Mental health

Any psychiatric diagnosis among elders was found to increase the odds of abuse by almost 2.5 times (Shugarman et al., 2003). Those having delusions in the past week, as reported by the older person, their family or from medical records, were also more prone for abuse estimated to be 2.5 times higher (Cooper et al., 2006). Poorer mental health, assessed by the Short Form 8 (SF8) questionnaire, was found to increase the odds of elders suffering abuse by more than four times (Naughton et al., 2012). Mental illness on the part of the caregiver or even someone else whom the elder was living with at home was also found significantly associated with elder abuse (Pérez-Cárceles et al., 2008).

2.8.3.4 History of chronic disease

The findings are generally similar, whereby having chronic medical conditions or non-communicable diseases were seen to increase the risk of elders being abused, making elders more susceptible to psychological abuse by as much as 1.5 times more (Wang, 2005a; Wu et al., 2012), overall abuse by one and a half times more (Dong & Simon, 2010), overall and verbal abuse in general (Yan & Tang, 2004), and increased mortality risks as well (Lachs et al., 1998). Some reasons cited included elders increased medical needs, the need for more attention or care from caregivers, caregiving responsibility necessitating personal sacrifice from caregivers, stress or perceived burden of caregivers.

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2.8.3.5 Cognitive impairment

Garre-Olmo et al. (2009) found that elderly with mild cognitive impairment were found to be significantly associated with higher odds of financial abuse. In their study, they excluded respondents with moderate to severe cognitive impairment using the Mini-Mental State Examination (MMSE), to increase the reliability of answers put forth by the elder through the direct face-to-face interview. The MMSE was also used by Fulmer and Herrnandez (2000) but that study focused on prevalence of elder abuse alone, and retained all respondents regardless of cognitive scoring.

The Pfeiffer Short Portable Mental Status Questionnaire (SPSMQ) tool is another instrument to assess cognitive impairment. Studies which used this tool showed that higher degrees of cognitive impairment among elders was associated with psychological abuse (Wang, 2005a), and that these elders were exposed to a higher risk of mortality compared to elders without cognitive impairment (Lachs et al., 1998). The Neurobehavioral Cognitive Status Examination, used by Beach et al. (2005) to screen both care recipients and caregivers, showed that only caregivers with higher degrees of cognitive impairment were at risk of being the perpetrators of elder abuse. Excluding those caregivers with more severe degrees of cognitive impairment showed similar results. Care recipients with cognitive impairment; on the other hand, was not correlated with higher odds of elder abuse in this study. A short term memory problem was shown to increase the odds of elder abuse (Yan & Tang, 2004) by almost three times (Shugarman et al., 2003). Elderly persons with more severe cognitive impairment were found to have higher odds of abuse (Cooper et al., 2006) where interestingly, it was also shown that those with higher levels of impairment or probable dementia are more likely to suffer physical abuse, while those with lower levels of cognitive impairment are more likely to suffer neglect abuse. Dong and colleagues found that lower levels of cognitive impairment were actually associated with greater risks of self-neglect (Dong et al.,

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2010). This could possibly be explained by caregivers taking care of elders with greater degrees of cognitive impairment. This was the only study that found contrasting findings to the others.

2.8.3.6 Depression

Depression appears higher in those with reported self-neglect using the CES-D (Dong et al., 2010), as well as overall abuse when measured using the GDS-15 (Buri et al., 2006) or CES-D (Biggs et al., 2009). It was associated with overall abuse in elder females but not elder males (Kivelä et al., 1992). Suspected depression, assessed using the GDS-5, was found associated with 1.5 times more odds of psychological abuse (Garre-Olmo et al., 2009), doubles the odds of overall abuse measured through the MDS-Depression Rating Scale Score or DRS (Cooper et al., 2006) and increases the odds of overall abuse by more than five times, using the GDS-15 (Wu et al., 2012). It was also linked to a higher risk of mortality (Lachs et al., 1998). Studies have shown strong correlation between verbal abuse and psychological abuse with depression (Yan & Tang, 2001), emphasizing the strong link between depression and elder abuse, with depression being either a predictor variable associated with abuse, or being the consequence of abuse itself.

2.8.3.7 Anxiety

(Shugarman et al., 2003) appeared to be the only study examining anxiety besides depression, assessed using one of the components of the MDS-HC. Although it appeared to be more frequent among those abused, neither depression nor anxiety were found to be associated with elder abuse in this study. Anxiety appears to be among some of the consequences that not only abused elders may face (Acierno et al., 2010; Oh et al., 2006), but this extends to caregivers who abuse elders as well (Beach et al., 2005; Wang, 2005a).

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2.8.3.8 Stress

Wang (2005a) mentioned stress on the part of the caregiver who abuses elders, and also as a consequence of psychological abuse suffered by the elder. Studies have shown that cognitive decline and frailty in elders may cause more stress in the caregiver (Kissal & Beser, 2011; Shugarman et al., 2003), however sometimes the quality of the family relationship may help by virtue of being a modifying factor, such that caregiver stress is negated (Oh et al., 2006). Elder's bladder and bowel incontinence has been found to be associated with as much as two and a half times more psychosocial abuse, possibly explained by the stress placed on the caregiver in looking after the elder (Garre-Olmo et al., 2009). In fact, the family violence model has been used to explain dependency of the elder causing more caregiver stress, resulting in increased risk of elder abuse (Canadian Task Force, 1994).

2.8.3.9 History of abuse

A history of having experienced abuse, or previous traumatic experiences, describes the occurrence of the elder having been abused before. Previous experience of a traumatic experience has been shown to be strongly associated with increased likelihood of elder abuse, in terms of slightly increased risk for financial abuse, double the risk for psychological abuse, and fourteen times more when it comes to sexual abuse. This may perhaps be explained by the same stressors or abusive individuals within the family or environment of the elder, predisposing to the said abuse, or that the nature of the abusive act itself exhibits a cyclical pattern (Acierno et al., 2010). Another American study found a previous history of physical or sexual abuse being associated with double the odds of financial abuse and thirteen times the odds of psychological, physical or sexual abuse (Lin & Giles, 2013). Previous studies have estimated between 58 to 70% of abused elders had experience of such incidents in the past (Canadian Task Force, 1994). Other research merely asks if the elder person had witnessed abuse before, rather

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than having experienced it, with 22% of respondents having witnessed it before (Kissal & Beser, 2011). Previous history of abuse has been mentioned as possibly being a continuation of domestic abuse into the respondents ageing years (Lin & Giles, 2013).

2.8.4 **Social support**

2.8.4.1 Social isolation

Dong and colleagues had identified social isolation as an important risk factor for elder abuse, assessed by asking if the elder had access to a trusted person (Dong et al., 2010). Both having a social network and engaging in it was deemed important to the elder, as a poor social network and lower levels of social engagement were strongly associated with increased odds of elder abuse (Chokkanathan & Lee, 2006) and self-neglect, even after adjusting for sociodemographic factors, comorbidities, depression, cognition, dependency, body mass index (BMI) (Dong et al., 2010). Social isolation, reported as loneliness in the past one week, was associated with elder abuse in a national prevalence study of elder abuse in the UK (Biggs et al., 2009). Having poor social ties also predisposes to a higher risk of mortality (Lachs et al., 1998). Acierno et al. (2010) showed a three times increase in the odds of abuse in elders with poorer social provisions, while Buri et al. (2006) recorded up to four and a half times higher odds of abuse. In one study, social functioning and social support were measured by asking about ease of interaction with others, open expressions of conflict, loneliness, or a poor support system. Having a poor support system was characterised by inability of caregiver to provide necessary care, lack of commitment by the caregiver, caregiver depression or anger, and caregiver perception of poor support from the family. This was found strongly associated with elder abuse between two and a half to three and half times more (Shugarman et al., 2003). In Finland, loneliness and the lack of someone to

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share problems with were associated with higher odds of abuse among male elders, while in females, social losses were associated with increased odds of abuse (Kivelä et al., 1992). In rural China, loneliness in elders predisposed them to abuse by one and a half times more (Dong & Simon, 2010). Poor social support predisposed elders to abuse by four times more in a national Irish prevalence study (Naughton et al., 2012) Examining various subtypes of abuse, a low morale of elders and social isolation predisposed elders to three and a half times more odds of psychological abuse and up to seven times more of neglect abuse (Burnes et al., 2015).

2.8.4.2 Social engagement

While social engagement is good, expressing conflict with others was associated with twice the odds of elder abuse (Cooper et al., 2006). Frequent arguing with relatives predisposed the elder to abuse by as much as nine times more (Pérez-Cárceles et al., 2008).

2.8.4.3 Poor family relationships

Elders with poorer family relationships had higher odds of abuse (Kivelä et al., 1992; Oh et al., 2006), up to a twelve fold increase in the odds of abuse (Chompunud et al., 2010). This is supported by another study in Israel, where compared to other family problems such as drug or alcohol abuse, financial problems, unemployment or mental illness, conflictual family problems were reported as the most prevalent cause of any abusive behaviour towards elders (Iecovich et al., 2004). This finding was replicated by a study in Turkey where below average family relationships predisposed to elder abuse by almost nine times more (Kissal & Beser, 2011).

In developing countries like Turkey, or Asian countries like India, China, Korea, Taiwan, Hong Kong and Thailand, where elders tend to reside with the oldest sons or adult children and their families, this secure nest for the elder is slowly being

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dismantled, as with urbanisation and development, more and more young families are going to cities, living as nuclear families, or being more career-oriented where both adult children and spouse work, leaving no one at home to tend to elders on a daily basis. Sometimes this is not conjured as active abuse but rather falls into the category of neglect, or even if not, makes elders more susceptible and vulnerable by virtue of a shrinking social network and increased feelings of loneliness and social isolation, which have all been shown to increase the risk of abuse.

In summary, it appears that the oldest old, elderly females, cognitive impairment, depression, and dependency of the elderly person on the caregiver make them more prone for abuse. Those elders at risk of social isolation, whether by virtue of having poorer social ties or a social network, were also exposed to higher odds of abuse. A prior history of abuse was also associated with higher odds of abuse. All the above factors were put forth in this study, while a few others, as below, were out of the scope of this study.

2.8.5 **Other factors associated with elder abuse**

2.8.5.1 Health care utilisation

Health care utilisation was asked in terms of number of visits to the emergency department, as well as visits to the doctor's office in the past 12 months. Those elders who had more of such visits were found to be associated with a higher risk of physical abuse (Buri et al., 2006).

2.8.5.2 Substance abuse

Substance abuse, whether drug or alcohol related, has been shown to be associated with EAN (Canadian Task Force, 1994; Iecovich et al., 2004). Specifically, alcohol abuse by

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the elder has been found to predispose them to potential abuse (Cooper et al., 2006), by as much as ten times more than usual (Shugarman et al., 2003). Elders who abuse alcohol are likely to display provocative behaviour, which could thereby lead to a higher risk of abuse (Shugarman et al., 2003).

2.8.5.3 Self-neglect

According to the definition of elder abuse, one of its subtypes, neglect, refers to an act perpetrated by another person towards an elder. However, the concept of self-neglect exists whereby the elderly person themselves refuses or fails to provide themselves with food, clothing, shelter, water, proper hygiene, medication where necessary, and other safety precautions. Essentially, caregiver neglect and self-neglect is differentiated by the presence or absence of the caregiver in the scenario. In a longitudinal study in the USA, self-neglect identified at baseline and without the presence of elder abuse reported at that time, has been shown to be associated with higher odds of subsequent elder abuse, financial exploitation of the elder, caregiver neglect, as well as increased risk of multiple types of abuse. Elder abuse in this context was reported and corroborated by the state social services agency (Dong, Simon, & Evans, 2013).

2.8.6 Summary of factors associated with elder abuse

All the above factors associated with elder abuse in section 2.8 are as tabulated in Table 2.4.

Table 2.4: Evidence based table showing prevalence, associated factors and measurement outcomes of various elder abuse studies (see Appendix C)

In summary, the various factors then studied in this survey were those pertaining to the socio-demographics of the elder, namely age, sex, ethnicity, marital status, education,

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income, living arrangements and current employment status. An objectively measured physical function status of elders via walking speed and handgrip strength was also noted, besides general health status, asked via physical health composite score of the SF12v2, mental health composite score of the SF12v2, mobility disability status, chronic disease presence, cognitive impairment, stress, anxiety and depressive symptomatology.

A previous history of abuse occurring was also asked, before looking at the risk of social isolation of the elderly person. Besides these, other factors out of the scope of this study were various barriers to the access of health care, substance abuse, and self-neglect.

2.9 Reporting of abuse

When abused elders were prompted further not just on the incidents of abuse but how they felt and whom they spoke to about it, a large proportion of abused elders turned to their family members first, usually adult daughters. Besides family, friends and neighbours, professionals such as social workers and police were the persons sought to share their experiences (Iecovich et al., 2004; Naughton et al., 2012). A total of 34% abused elders in Ireland had kept silent about the abuse, not telling anyone, while 41% had confided in another family member, and 20% had informed their general practitioner or even the police (Naughton et al., 2012).

Only about one in twenty or 5.9% of abused elders actually disclosed of abuse when compared to 21.4% who were identified as having signs of being abused and a further 32.4% deemed at high risk of abuse in one study in Israel, showing the difficulty that elders may experience in talking about any abusive acts suffered. Those who did report it mostly suffered from physical or sexual abuse at the hands of family members,

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usually a partner, adult child, or the adult children's spouses (Cohen, Levin, Gagin, & Friedman, 2007).

In the Chinese culture, most elder abuse cases are underreported due to the long standing cultural values held to by elders, where they are reluctant to disclose of abusive experiences to others in order to maintain family honour and harmony. This is especially so if the perpetrators are from within the family itself, and they perceive this to be an extremely private family matter inappropriate to be mentioned to others (Yan, Tang, & Yeung, 2002). This was echoed in a study in Portugal, where although of a different culture altogether, similar family norms were said to influence the elder's propensity to withhold from speaking about abusive acts perpetrated by members of the family, besides a mistrust of official or formal services (Gil et al., 2014).

The disclosure of abuse referred to here is in how elders report of or disclose of any abuse that has happened or is happening to them, to another person. This is in contrast with legal mandates calling on health care providers or social workers to report elder abuse (McGinn, 2004), where a recent study found that the relationship between the elder person and the reporter of abuse influences the decision and time taken to report the abuse. More superficial relationships between victim and reporter led to faster reporting to legal authorities, in contrast to closer relationships between the victim and reporter or even the offender (Jackson & Hafemeister, 2015). Closer relationships caused further delay in reporting to the authorities, likely because of the emotional attachment, affection towards the person and familial bonding, hence the reluctance to report the abuse.

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2.10 Reaction upon disclosure

Elders react in different ways, ranging from shock and disbelief, to sorrow, anger, depression, and social isolation. Some were scared while others reacted by responding aggressively themselves towards physical and verbal abuse (Comijs et al., 1998). These effects may indirectly affect their health, resulting in increased morbidity and mortality. (Yan & Tang, 2001) shows that abused elders reported more psychological distress, such as somatic complaints, depression, anxiety and social inappropriateness, as well as a general negative psychological functioning. In line with social exchange theory which states that the more dependent person in a relationship would experience feelings of powerlessness, depression and lack of control, the findings thus explain the higher levels of dependence of the elder on the caregiver being associated with poorer mental health. In a national Irish prevalence survey of elder abuse, 84% of abused elders disclosed that they felt the abuse had a serious impact on their well-being (Naughton et al., 2012). Besides these health measures or effects on the elder, some of the interventions reported included family members speaking to the perpetrator of abuse on behalf of the elder, the elder breaking off contact with the perpetrator, or rarely, obtaining professional help (Naughton et al., 2012).

2.11 Perpetrators of elder abuse

Generally, perpetrators tend to be someone known well to the elder (Puchkov, 2006) and especially so from among the family members themselves (Gil et al., 2014; Iecovich et al., 2004). In India, perpetrators tend to be the daughters-in-law, or dual combination of son and daughter in law. Chokkanathan and Lee (2006) explained that commonly the Indian newlywed wife goes to reside with her in-laws family, and with possible adjustment problems, a generation gap, difficulties on the mother-in-law's part to let go of authority, conflicts arise and so does elder abuse. More so when the

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daughter-in-law works and is not the traditional homemaker, elders may be more vulnerable to abuse. He also goes on to say that when a family or marital matter has to be resolved, or through dowry problems, the wife's family is often faulted and thereby conflicts arise where the husband may mistreat his in-laws, thus explaining the background of the son-in-law in abusing elders, as compared to adult sons and daughters-in-law.

A similar pattern is seen in other Asian countries, both China and Korea where the elders normally reside with the oldest son and family, and through their unwillingness or lack of ability to cope, increased conflicts and tensions may arise, causing caregiver burden or stress, which may be worsened by a pre-existing poor relationship, thereby causing the adult son and daughter-in-law to be the most likely perpetrators of abuse. This is compounded by the younger generations shifting from an extended to nuclear family as they migrate in search of greener pastures from the rural to urban areas (Oh et al., 2006; Wu et al., 2012).

Spousal abuse, where one elderly person is looking after another partner or spouse, was a common feature of EAN seen, where men were commonly the perpetrators (Beach et al., 2005; Iecovich et al., 2004). Other family members perpetrating the abuse included the elder person's children, children in law, besides non-relatives such as paid attendant caregivers (Burnes et al., 2015; Canadian Task Force, 1994; Naughton et al., 2012; Puchkov, 2006).

It is found that caregivers caring for elders for longer durations (nine years or more), who are related to the elder, living with them, are in bereavement, having a deterioration in health or under stress, may tend to abuse elders. In particular, verbal abuse is more common among elderly spouses, while in physical abuse, the perpetrator is usually a

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spouse who abuses alcohol, has emotional or physical problems, and is dependent financially on the elder (Canadian Task Force, 1994).

Caregivers with some pre-existing illness were more prone to abuse elders (Beach et al., 2005; Canadian Task Force, 1994; Comijs et al., 1998; Iecovich et al., 2004; Naughton et al., 2012). Those with poorer cognition were also more likely to abuse elders (Beach et al., 2005; Christie et al., 2009). Elders reported being more likely to be subjected to abusive or potentially harmful behaviour when tended to by caregivers who had more depressive symptoms and life events (Beach et al., 2005; Christie et al., 2009).

Caregivers who are dependent on elders were more likely to abuse elders. This was especially so for those caregivers who were financially dependent on elders, who were more found to be more likely to physically abuse elders (Canadian Task Force, 1994). Unemployment among caregivers was shown to be associated with higher odds of elder abuse (Naughton et al., 2012) as were caregivers with financial problems (Iecovich et al., 2004). Prior poor family relationships has been shown to be common between perpetrators and elder abuse victims (Iecovich et al., 2004).

Cohabitation with someone who engages in risky behaviour predisposes the elder to abuse (Canadian Task Force, 1994; Naughton et al., 2012). Living with someone who engages in excessive drinking or drug abuse significantly increases the risk to abuse (Naughton et al., 2012; Pérez-Cárceles et al., 2008). Substance abuse has been found to have a significant independent effect on elder abuse, regardless of living arrangement (Canadian Task Force, 1994; Comijs et al., 1998; Iecovich et al., 2004).

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2.12 Summary

In summary, elder abuse among community dwelling elders is a vast topic, which has been examined in details by investigating its prevalence, measurement, associated factors, disclosure of abuse by the elder and reaction upon disclosure, besides perpetrator characteristics. Studying these factors together in a holistic manner would aid in understanding this topic among community dwelling elders across different populations. The above systematic review has revealed a number of key points that must be considered in the design of the future study:

1. The most commonly used tool to measure elder abuse is the revised Conflict Tactics Scale (CTS2) as it measures physical, sexual and psychological abuse, rather than other tools of assessment, such as the Elder Abuse Suspicion Index (EASI) (Yaffe, Wolfson, Lithwick, & Weiss, 2008), Indicators of Abuse Screen (IOA), Brief Abuse Screen for the Elderly, Hwalek-Sengstock Elder Abuse Screening Test, or Elder Assessment Instrument (Fulmer, Guadagno, Dyer, & Connolly, 2004). Therefore, to interpret future findings in the context of previous research, it is important to use a similar tool.

2. The distribution of elder abuse is an under-explored area in Malaysia. This is important as the review revealed that the experience of elder abuse is not uncommon and appears to be higher in the Asian region than in Europe or America.

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CHAPTER 3 : METHODOLOGY

3.1 About this chapter

This chapter describes the materials and methods employed in this study. Further to Phase One, namely the systematic review and the various aspects studied in the literature review, the study was performed by first embarking upon a pilot testing and validation study. This is followed by a community based household survey among rural community dwelling elders in Kuala Pilah district. In this chapter, the study population, instruments used, data collection procedure and the statistical analyses employed are described. Ethical consideration for the study is explained. The flow of this research is depicted in Figure 3.1. The details of Phase Two and Phase Three are described below.

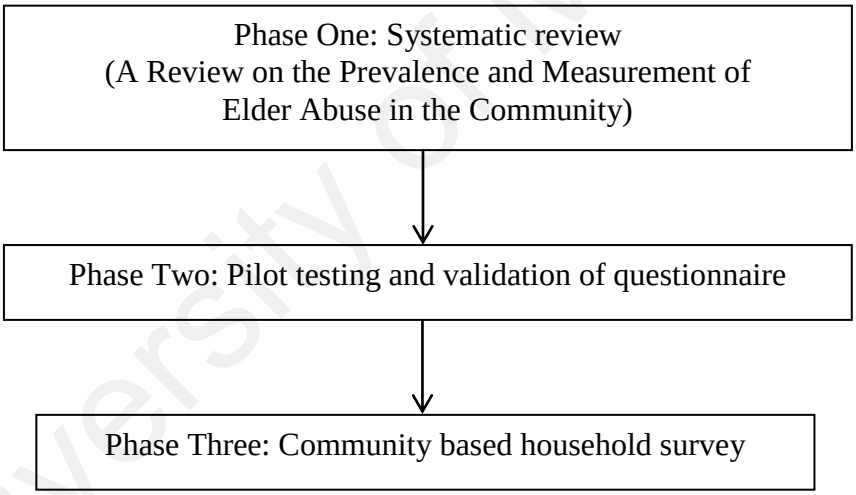

Figure 3.1: Flowchart showing methodology of study

3.2 Phase Two (Validation study and Pilot testing)

3.2.1 Face validity

The main objectives of the study are to examine the prevalence of elder abuse and its association with various factors, using the elder abuse instrument which had been developed and used in both Ireland and New York (Naughton et al., 2012), with written

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permission from the author of the Irish study (See Appendix D). This questionnaire was based on elements found in the revised Conflict Tactics Scale, the most comprehensive tool to date reviewed. Therefore, only face validation was sought to ensure the questions used had sufficient local validity.

A basic content validity of the elder abuse questionnaire was sought via expert opinion, consulting various public health experts in the field of geriatrics and violence, as well as social workers to obtain their perspective on the questions posed. The questions used were shown to the local experts who agreed that all questions were measuring the concept being assessed, with minor additions being lack of access to food, clean clothing, medication or health care, and shelter. Local content validity was then deemed to be sufficient as examined by expert opinion, taking into consideration that the instrument has been used in similar studies before.

A forward and backward translation of the questionnaire from English into Bahasa Melayu, the official language of Malaysia, and back again into English was performed by different persons. The forward translation from English to Bahasa Melayu was done independently by a research assistant and a medical doctor. This was subsequently merged into one document during a discussion session between the two translators where various points noted to have different meanings or words produced was discussed and agreed upon. This merged version of the questionnaire was then given to another two research assistants. Finally, the two copies were then merged into one, clarifying different words and terms used by both the research assistants. In both the forward and backward translations, one of the two persons involved was a native Bahasa Melayu speaker. The final versions in both Bahasa Melayu and English were discussed with the local experts to ensure their agreement with the terms used.

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Further to this, face validation of the elder abuse questionnaire was sought with the elderly. This was conducted by reading through the questionnaire to six elder respondents to ensure the meaning of the words was understood, by asking the elder respondents to interpret what they thought each question was referring to. Acceptability of wording, clarity of meaning, comprehension and possible discomfort was also looked into. As the Bahasa Melayu and English versions were both well understood by the various elder respondents approached by the principal investigator, a subsequent pilot study was conducted with 350 elder respondents residing in public low cost housing areas in Kuala Lumpur and Selangor state to test the questionnaire.

3.2.2 **Pilot testing**

Having established face validity of the questionnaire, the pilot testing was conducted as follows. A purposive sampling of elders aged 60 years or more was done in the low cost government flats in the Klang Valley, whereby the principal researcher and a team of trained enumerators went to these flats after permission was obtained from the respective heads of the residential bodies there. The heads of the residential bodies aided to disseminate posters and information about this study a week prior to the actual visit. Elders from the flats were able to come to the common hall to be interviewed one by one. Elders who were bedridden as informed by the residential body heads were visited at home and interviewed.

Additional interviews were sought with elders at the University Malaya Medical Centre primary care department, and a general practitioner's clinic in Selangor, obtaining a total of 352 interviews. An honorarium of RM 10 (or approximately USD3) and 2 kg rice packets were given to each participant upon completion of the interview. From these elder respondents interviewed face-to-face, those with probable cognitive

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impairment were removed from the data set in order to enhance the validity of the answers provided by elders. The final sample for analysis was 291 elders.

3.2.2.1 Ethical approval

Prior to conducting the study, the study was registered with the National Medical Research Registry (NMRR), Ministry of Health Malaysia with identification number NMRR-12-1444-11726 (see Appendix E). University of Malaya's Institutional Review Board permission was also sought and obtained, with MEC Reference Number 902.2 dated 15 February 2012, and amended with referral number PPUM/QSU/300-04/11 on 25 June 2013 (see Appendix H). Written permission from the relevant authorities at the community level was also obtained. Respondents' written informed consent was taken before proceeding with the face-to-face interview, and data collected used for the purpose of this study alone. No adverse event was foreseen towards the respondents (see Appendix I and J).

3.2.3 Reliability assessment

3.2.3.1 Internal consistency

Cognitive testing via the Elderly Cognitive Assessment Questionnaire (ECAQ), which has been previously validated locally, besides depression using the Geriatric Depression Scale-15 (GDS-15), physical and mental health composite scores of the SF12v2, risk of social isolation via the revised Lubben social network scale, and overall abuse using the questionnaire previously validated as mentioned, were tested. The various researches validating the use of these instruments have been documented in Section 3.3.8.1.

Table 3.1 below shows a good internal consistency of most measures tested, as indicated by a value higher than 0.6. The ECAQ showed cronbach alpha reliability coefficient of 0.731. The GDS-15 also showed good internal consistency with a Cronbach alpha reliability coefficient of 0.748. Assessment of physical and mental

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health composite scores via the SF-12 showed cronbach alpha reliability coefficient of 0.731, while risk of social isolation had a cronbach alpha reliability coefficient of 0.731. Overall abuse too had a fairly good internal consistency measured by the elder abuse questionnaire as shown by the cronbach alpha reliability coefficient of 0.540.

In addition, the corrected item total correlation figures for these measures are mostly higher than 0.3, indicating each item correlates well with the total score, as seen in Appendix G. For depression, the exception was question 2, 3, 9 and 15, indicating most items correlates well with the total score. Questions which appear to be similar are actually enhancing the reliability of answering by the subject, to show that they understand the question and reply similarly, for example, question 12 & 14, or even question 2, 3 and 9. Each subtype of abuse correlates well with overall abuse, except for neglect in which case, there were too few cases detected.

After discussion with the expert panel who helped review the content validity of the questionnaire, no test-retest reliability measures were undertaken considering the sensitive nature of the questions, which could have led to possible undue distress to the respondents. Besides, there is a possibility of inaccuracy in eliciting the same or similar answers from elders who had indeed experienced some sort of elder abuse before.

Table 3.1: Reliability statistics of various measures used

Measures	Cronbach's Alpha	No. of items
Cognition (ECAQ)	.731	10
Depression (GDS-15)	.748	15
Physical and mental health component scores (SF12v2)	.855	12
Risk of social isolation (LSNS-6)	.769	6
Overall abuse	.540	5

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3.3 Phase 3 (community based household survey)

This was the major part of the study involving a period of six months of field work.

3.3.1 Study design

This was designed to be a community based cross-sectional study, meant to obtain the prevalence of, and identify factors associated with elder abuse among rural community dwelling elders. The study also ascertained how these elder elders react to or disclose of this abuse, besides identifying perpetrator characteristics. The data on the rural elder population in Kuala Pilah district was obtained via a survey over a period of six months, from November 2013 to May 2014. Both descriptive and analytical analyses have been performed subsequently. The researcher and trained enumerators had administered the questionnaire face-to-face with the elder respondents during the course of the survey. This part of the study was the largest, with extensive data collection from house-to-house across Kuala Pilah district.

3.3.2 Setting

The study was conducted at Kuala Pilah district, one of seven districts in the state of Negeri Sembilan. Negeri Sembilan state is situated on the west coast of Peninsular Malaysia, and Kuala Pilah is about 100 kilometres south of the capital city of Kuala Lumpur. It is the third largest district, at 1,031 square kilometres, after the districts of Jempol and Jelebu. Kuala Pilah has both rural and urban areas, and is considered more rural compared to other districts such as Seremban. It is among the larger districts in Negeri Sembilan, and has among the largest dependency ratios (49.3%) in the state (Department of Statistics Malaysia, 2010b). Therefore, this district was chosen to cover two reasons, namely to target both rural areas as well as obtain the maximum population of elders. In Kuala Pilah district, after obtaining the approval of the Negeri Sembilan

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State Health Department as well as the Kuala Pilah District Health Office, a good rapport was built up with them, thus enabling this study to be conducted successfully. Figures 3.2 and 3.3 portray the maps of Malaysia and Negeri Sembilan, respectively.

Figure 3.2: Map of Malaysia

Source: Map collection, University of Texas, 1998

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Figure 3.3: Map of Negeri Sembilan state

Source: http://www.impressions.my/Negrimain/Ng9info.htm

3.3.3 **Sampling Methodology**

3.3.3.1 Sample size estimation

A minimum of 2,078 subjects was required to demonstrate a significant difference at 80% power and a two-sided 5% significance. This was taking overall abuse as a factor, with a 95% confidence interval (CI) and ratio of unexposed to exposed as 9:1, odds ratio of 2.2, design effect due to complex sampling estimated at 2.0 based on the pilot study conducted (Sooryanarayana et al., 2015). Sample size calculation was done using OpenEpi Software version 2.3.1. The sample size was inflated by 20% to account for non-response, thus obtaining a final figure of 2,494 subjects.

3.3.3.2 Sample Selection

Community dwelling elders were chosen to be representative of the majority of elderly within the general population. This is taking into consideration that the majority of Malaysian elderly reside at home, and not in nursing homes or institutions. Two thirds to three quarter of Malaysian community dwelling elderly reside with adult children and/ or other family members (DaVanzo & Chan, 1994; Martin, 1989; Merriam & Mohamad, 2000). Kuala Pilah district, having among the highest dependency ratios in the state (49.3), was ideal for this study.

One district out of seven was chosen from Negeri Sembilan state, and subsequently community dwelling elderly were chosen from within this district of Kuala Pilah. Sampling was done using a two stage random stratified sampling, with the enumeration blocks (EB) being the first level, and the living quarters (LQ) or households within each EB as the second level. The method of selection of these community dwelling elderly was performed by the Department of Statistics (DoS), Malaysia. The Department of Statistics conducts the ten yearly national censuses, the last census being in year 2012. The Department of Statistics has the most comprehensive database of the population at large, and as such permission was sought from them to access or utilise the database of elders in Kuala Pilah district for the purpose of this survey.

According to the Department of Statistics, the geographical area of each state is divided into arbitrarily defined enumeration blocks, which are further divided into living quarters. These living quarters and enumeration blocks are contiguous to one another and merely arbitrary parameters set to define the population. According to the Preliminary Count Report 2010 (Department of Statistics Malaysia, 2010c), an enumeration block is a land area which is artificially created and consists of specific boundaries, and on average contains about 80 to 120 living quarters with approximately 500 to 600 persons. Living quarters refers to a place which is structurally separated and

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independent which is meant for living, where separate denotes it is surrounded by walls, fence, etc and covered by a roof, while independent denotes it has a direct access via a public staircase, communal passageway or landing (that is, occupants may come in or go out of their living quarters without passing through someone else's premises).

This study used a two-stage stratified random sampling. The first stage sampling was done to randomly select the EB and second stage sampling was performed to select the LQ. In this manner, Kuala Pilah district is actually divided into 254 enumeration blocks or EBs. Of this 254 EBs, 156 were randomly chosen by the Department of Statistics, wherein each EB contains between 14% (the minimum) and 84% (the maximum) of elders. Sixteen elders in various LQs or households were chosen from each EB by the Department of Statistics.

The Department of Statistics aided by providing maps of the areas covered, with a starting point marked to enable interviewers to locate the households identified. Random selection of respondents was ensured by following the list of elders provided in the sampling frame given by the Department of Statistics. In the event that the participant was deceased, or unable to be interviewed after calling upon them three times, the elderly person was considered a non-response. Elderly dwelling in the same household were allowed in the sample, if there was no elderly in the next household, provided they were interviewed separately and in two different areas of the house to ensure privacy. With no other existing database of elders in the community, the Department of Statistics sampling frame was the best option in the conduct of this community based survey.

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3.3.4 **Study population**

The study population for this six-month long project consisted of community dwelling elderly of Kuala Pilah, according to the following criteria.

3.3.4.1 Eligibility criteria for respondents

3.3.4.1.1 Inclusion criteria

i. Elderly persons aged 60 years or more at the time of survey

ii. Community dwelling elders residing at home, either alone or with family or relatives in Kuala Pilah district over the past 12 months

iii. Malaysian nationals

iv. Elderly persons able to communicate on their own, without needing a third party to interpret

v. Elderly persons who consented to this survey of their own free will

3.3.4.1.2 Exclusion criteria

i. Elderly persons who reside in long term care institutions or nursing homes

ii. Elderly persons who did not understand or speak the English or Bahasa Melayu languages, or Chinese or Tamil dialects

iii. Elderly persons who could not communicate themselves, for example post-stroke

iv. Elderly persons who were not residents in the area in the previous 12 months

v. Foreign nationals

vi. Severe cognitive impairment based on the ECAQ assessment

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3.3.5 **Conduct of field work**

The study was put forth to the various parties concerned, including the Negeri Sembilan State Health Department, the Kuala Pilah district health office, the Ministry of Rural and Regional Development which governs the various villages through the Village Safety and Development Committee or *Jawatankuasa Keselamatan dan Kemajuan Kampung* (JKKK), and the Department of Statistics, Malaysia. The local authorities concerned provided letters of authorisation to the researcher and interviewers comprising the team members of the survey for verification of the survey and team members involved.

The interviewers comprising research assistants and local enumerators participated in a two-day training session by the principal investigator to familiarise them with the objectives, methodology and conduct of field work. This included mock interviews and practicing the handgrip strength and walking speed test measurements. They were also briefed on how to handle difficult situations such as an elderly respondent who was hostile, got upset or cried during the interview.

Every day, the team leaders would have made appointments with the respondents ahead of time to interview them at their houses. Each team would visit a selected village or locality and first meet with the village head, the chairperson of the Village Safety and Development Committee *(Jawatankuasa Keselamatan dan Kemajuan Kampung* or JKKK). Each team leader would have attempted to make a telephone appointment with the elderly respondent. However, not all were contactable in this manner, in which case the home visit was the first point of encounter to introduce the elder to the project and recruit them if so willing. Team leaders and interviewers reported daily to the project leader in case elderly respondents needed referral for any reason.

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3.3.6 **Face-to-face interview**

The interviews were conducted in pairs, with two team members visiting one elderly respondent's house, so that one team member could interview the respondent. Other team members would move on to the next house where a respondent was located. This was to ensure the safety of team members. While one person was interviewing the elder, the other person would help demarcate the area used for the four metre walking test, go through the previous completed questionnaire to ensure completeness, or engage with family members if present, so as to allow better privacy between the interviewer and the elderly respondent.

The whole questionnaire examined a range of health related issues including physical, mental and social well being and was presented as part of a project on family relationships to overcome elder abuse and neglect. Thereafter, simple questions on demography, health and family were asked before reaching the more sensitive questions asking on abuse. In this section, questions on neglect, financial abuse, psychological abuse and physical abuse were asked first, before asking about sexual abuse. A preamble was also read out to elders, explaining that these questions are sensitive in nature and are in no way meant to hurt their feelings but are standard and are posed to all elders participating in the survey. They were also informed that they did not have to answer all questions if they did not feel comfortable doing so.

3.3.7 **Ethical considerations**

3.3.7.1 Ethical approval of authorities

All authorities, from the State Health Department to District Health Office, Department of Statistics, Ministry of Rural and Regional Development (see Appendix F) and

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University of Malaya Institutional Review Board's approval were sought prior to the conduct of the survey.

3.3.7.2 Ethics towards respondents

At the beginning of the interview, along with written informed consent, all respondents were given a participant information sheet, which had details of the project leader, university contact, Kuala Pilah district health office, health clinics under the Kuala Pilah district health office, the social welfare officer for the district besides other districts in the state, as well as two hotlines. These hotlines were the NUR hotline, a toll free national hotline run by the Ministry of Women, Family and Community Development, which is a 24-hour accessible line to anyone wishing to report abuse or mistreatment towards any person. The other hotline was that of a non-governmental organisation (NGO) called the Befrienders, which is an organisation with the primary aim of reducing the incidence of suicide, which takes calls anonymously if preferred, by enabling the caller to voice out their sorrows. In this way it helps people facing depression, loneliness, or even suicidal thoughts by lending them a sympathetic ear. This information was given to all elderly respondents at the beginning of the interview so as not to differentiate between those who disclosed abuse and those who did not, as well as to empower elders with the knowledge that these hotlines or services were available to them and other persons.

Respondents were informed that their decision to participate or not participate in this survey would not affect their treatment at the nearest health care centre in any way, as this was a purely voluntary decision of theirs. Respondents were able to verify the team member as well as the project conducted with the district health office or village heads, or peruse the interviewers' letters of introduction given by both parties. They were also informed that they could withdraw from the survey at any point of time if so decided,

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without adversely affecting their treatment at the nearest health care centre in any way either.

Respondents who then subjected to the study of their own free will, whether literate or not, were each read out the questions from the questionnaire by the interviewer and responses noted down, so as to keep standard the method of elucidating responses from the elderly respondents. Each respondent, upon completing the interview, was given a token of appreciation for being a part of this project, and invited to partake in future follow up studies to be done later.

A total of 17 respondents thought to be in danger or distress from active or ongoing abuse, and those thought to be suffering psychological distress from current or past abuses, were referred to the Kuala Pilah district health office for possible intervention. Referral was made available to all elders, however only those who requested or agreed to it were referred to the district health office in keeping with respecting elders' autonomy. Interventions usually necessitated home visits by the nursing staff, referral to the nearest health clinic, and monitoring. Those respondents suffering from extreme poverty or hardship, as well as lack of medical attention, were also referred to the Kuala Pilah district health office. The total referred was 41 elderly persons. This identification of elders was dependent upon the interviewers' judgement, and verified by the principal researcher on a daily basis. Those elders referred to the Kuala Pilah district health office were done both in writing as well as verbally informing and discussing the elders' particulars with the appointed nursing member of staff from the Kuala Pilah district health office, to enable monitoring and delegation of the cases to the nearest health clinic staff accordingly.

Besides this, elderly respondents who disclosed any form of abuse during the interview were advised to try and discuss strategies to help them with a trusted person such as a

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family member. Interviewers did not offer advice or remedies but instead focused on getting the elder to discuss the situation within their usual social context or environment if so possible.

The interviewer had to ensure that the elderly respondent was indeed comfortable and not too upset or distressed after the interview. This involved sitting with them for a few minutes, getting them a glass of water, trying to get them to focus on their daily routine or enquiring if they needed a neighbour or friend to come over for a while.

3.3.7.3 Ethics pertaining to interviewers

At the end of each day, interviewers cross-checked others questionnaires for completeness, handing them in to the team leaders and then the project leader, besides discussing any difficulties faced, and identifying cases which needed referral to the district health office.

Furthermore, a few sessions were held by two counsellors who conducted four peer-sharing sessions for the fifteen interviewers of the project, by having interviewers share thoughts and feelings on the project, besides role playing various real-life scenarios encountered. The counsellors basically discussed the groups' collective experiences for everyone's benefit, drawing upon constructivist debriefing methods used in counselling (McAuliffe & Eriksen, 1999; Patton & McMahon, 2006).

Any survey output quality is as good as the instrument that is used in the survey. Here, interviewers administered the questionnaire; thus, ensuring the interviewers well-being was important. Interviewers were able to express feelings and thoughts honestly, leading to improvements, and reducing perceived stress and anxiety through these debriefing sessions. Formalising these sessions helped interviewers to continue with the research without undermining their health or well-being, avoid burnout, build synergy, improve team dynamics and achieve a better quality of work output.

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In the first debriefing session, the focus was on inner reflection, allowing interviewers to think about what they liked and disliked about the project to date. Interviewers were invited to write down two things they liked and two things they did not like on a piece of paper which was then collected. All were picked randomly to be read out loud anonymously by other team members. Each was allowed to express how they felt, being a part of this project. The counsellors, who acted as facilitators, summarised these honest feelings of all the team members at the end, with a view to focus on the positive aspects or feelings.

At the next session, each interviewer was asked to write down the two most important things they liked about the project to date. These were discussed by reading it out loud so everyone could share what the other was feeling. Interviewers were given a sheet of paper and asked to draw one of three faces, either a smiley face, sad face or a "neutral" face, to show how they felt about the project. This was then collected and counted by the facilitators. The majority had positive feelings, indicated by a smiley face. Feelings of doubt or negative thoughts about the subsequent weeks still lingered among a minority. Facilitators had interviewers close their eyes for a few minutes, to think positively about the coming field work over the next few weeks and not linger on negative thoughts. All interviewers were asked to focus on the positive experiences and drop any untoward thoughts behind, taking this point in time as a turnover for each person.

During the third session, team members were paired up to act out various scenarios given to them. Much like dumb charades, this role playing had two members trying to act out scenes to be guessed by the rest. This served as an opportunity to think about how elders might feel, and express this figuratively. Scenarios acted out included a respondent speaking out of topic, a respondent busy doing other chores at the time of interview, a respondent crying during sensitive questioning of the interview, a

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respondent hard of hearing, and lastly to make a telephone appointment with an elderly respondent prior to the interview, as this was the modus operandi used. This enabled all team members to learn from others experiences and to try incorporating the positive examples into the remaining survey activity of interviewing elders.

The last session was a welcome respite to all interviewers. Everyone was given a sheet of paper and asked to divide it into three portions. They then had to draw how they saw themselves in the past, present and future. Everyone then had a chance to explain to the rest on what they drew and how they saw themselves in relation to each other and the current field work. Being youth, most had similar ideas, of school in the past, current field work, and better career prospects in the future. Some were honest and opened up about their past and how they have come far in life. Most agreed that being involved in the current survey activity served to broaden their perspective, about community service and the importance of family relations, besides appreciating the sacrifices of their own family members.

Qualitative surveys on sensitive topics have used debriefing strategies in the past and this was a novel attempt to incorporate those ideas and methods into this type of survey. It was done to better address the interviewers' psychological needs, besides enhancing the quality of work. Most times, surveys tend to focus on the ethics concerning respondents but not pay heed to the interviewers themselves.

3.3.8 **Definition of study variables**

The main primary outcome is overall abuse, which is made up of five subtypes of abuse. Each measured on its own, and then summarize to estimate the occurrence of any abuse in the past 12 months, as reported by the elder, in response to the questions asked. This instrument to assess elder abuse and neglect was developed based upon the national

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Irish prevalence survey on elder abuse and neglect, incorporating the questions used by them and the UK and USA studies, with permission from the principal investigator of the Irish studies (Naughton et al., 2012).

3.3.8.1 Independent variables

The independent variables associated with the elderly respondents included:

i. Socio-demographic factors of the elder (age, sex, ethnicity, marital status, education, income, living arrangements and current employment status).

ii. Physical function status of elders (walking speed and handgrip strength).

iii. General health status of the elder (physical health composite score of the SF12v2, mental health composite score of the SF12v2, mobility disability status, chronic disease presence, cognitive impairment, stress, anxiety and depressive symptomatology)

iv. Previous history of abuse in the elder

v. Risk of social isolation of the elder

i. Sociodemographic factors of the elder

Baseline demographic factors in the form of name, age, sex, ethnicity, national registration identification card (NRIC or MyKad) number were noted. This was verified by checking the elderly persons NRIC or MyKad, driving license or other official document such as pension book. Marital status, education level, income, living arrangements and current employment status were also asked about, as reported by the elder respondent.

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ii. Physical function status of the elder

This was objectively measured by means of one indicator for upper extremities and one for lower extremities. Quantitative assessments in the form of walking speed measurement and handgrip strength measurement were done.

- Walking speed over 4 metres

A stopwatch was used to measure the 4 metre distance covered by the elderly participant walking at a normal pace from a point marked on the ground to the next point demarcating the distance measured with a measuring tape. The interviewers performed the test themselves first, to demonstrate to the elder person what was to be done. Walking speed over a 4 metre distance was chosen as an indicator of mobility-disability (Van Kan et al., 2009). Respondents were encouraged to use their usual walking aids if any, and not asked to walk the distance if they were unable to do so. They were instructed to walk at their usual pace, and to start from the mark on the ground on the count of the interviewer issuing instructions. The stopwatch was started the moment the participant took the first step, and stopped when the last step across the finish mark was taken. Two attempts were made per participant, timed by a stopwatch, to two decimal points. These readings were then averaged later.

- Handgrip strength measurement

Further to this, handgrip strength measurement was tested using a baseline standard handheld dynamometer, with readings being recorded to one decimal point in kilogrammes. Handgrip strength measurement was taken as an indicator of physical function (Bohannon & Andrews, 2011). Two attempts were made per arm, so a total of four readings were obtained, to be averaged later. Respondents were first shown how to use the dynamometer by the interviewer, before being given the apparatus to hold and do the same. Those who were experiencing any hand or arm pain, or unable to do the

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test, were exempted from doing so. Interviewers took the dynamometer readings when respondents were seated on a chair with forearms resting forwards on a table in front of them, the forearm being positioned such that the elbow joint was at 90 degrees and the dynamometer was comfortably held with the forearm parallel to the floor, or thigh of the participant. If there was no table, then the participant was asked to rest their forearm on the sides of the armchair if so available. If it was a chair without arms, the respondents were instructed to hold the dynamometer placing their forearm resting upon their own thigh. If respondents were seated on the floor cross-legged, this was noted down while performing the reading in a similar fashion, with the dynamometer resting on the respondents thigh. Next, respondents were asked to squeeze the dynamometer handle gently to get a feel of the dynamometer. Following this, they were asked to squeeze it as hard as they could, and the maximum possible reading was noted. This was then repeated, so as to obtain a total of two readings for each arm.

iii. General health status of the elder

This was asked by means of the physical health composite score of the SF12*v*2, mental health composite score of the SF12*v*2, mobility disability status, chronic disease presence, cognitive impairment, stress, anxiety and depressive symptomatology.

- Physical and mental health composite scores of the SF12*v*2

Physical and mental health composite scores of the SF12*v*2 were asked in relation to the past seven days (Ware Jr, Kosinski, & Keller, 1996). Permission for usage of this questionnaire was purchased from Quality Metrics' SFTM. This health survey asked 12 questions measuring the functional health and well-being from the participant's point of view. It is a practical, reliable and valid measure of physical and mental health. It is divided into eight domains or components which are physical functioning, role-

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physical, bodily pain, general health, vitality, social functioning, role emotional and mental health as well as psychometrically-based physical component summary (PCS) and mental component summary (MCS). The Quality Metric's SFTM smart measurement system was used to automatically calculate the scores. These questionnaires are available in Bahasa Melayu (Malay) and English versions, the SF-36 having been validated for use in the Malaysian population by Sararaks et al. (2005), and the SF-12 by Noor and Aziz (2014).

- Mobility-disability

Mobility-disability was asked in terms of a single self-reported question, whether the elderly respondent was able or unable to go up a flight of stairs on their own, rather than performing a battery of tests (Guralnik & Ferrucci, 2003) upon the elder.

- History of chronic disease

History of chronic disease was asked for by asking the elderly respondents if they had ever been told by a doctor or medical staff that they suffered from hypertension, cardiovascular disease, stroke, arthritis or joint pain, Parkinson's disease, diabetes mellitus, respiratory problems such as asthma or lung infections, cancer, or hypercholesterolaemia, similar to the National Health and Morbidity Survey format (Institute for Public Health. National Institutes of Health. Ministry of Health Malaysia, 2011a). An affirmative answer to any of these was taken as 'yes' for chronic disease.

- Cognitive status

Cognitive assessment was via the Elderly Cognitive Assessment Questionnaire (ECAQ). The ECAQ has ten items, grouped under memory, orientation and memory recall. It has been validated for use in the local population (Kua & Ko, 1992), with scores of 0 to 4 considered as probable cognitive impairment, 5 to 6 as borderline cognitive impairment and 7 to 10 as normal cognition (Hairi et al., 2010). Responses

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were noted and the interview conducted accordingly regardless of the scoring at this point.

- Depressive symptoms, anxiety and stress

Depressive symptoms, anxiety and stress were asked for in relation to the past seven days using the DASS 21 instrument. It was read out and respondents asked to identify a response to each statement being read, ranging from not at all, infrequent, frequent, to very frequent, according to how they felt in the past one week. The DASS 21 is a shorter version of the longer 42 item DASS, and has been shown to have adequate validity for each measure of depression, anxiety and stress (Crawford & Henry, 2003; Lovibond & Lovibond, 1995), as well as having been validated in the Malay language (Musa, Fadzil, & Zain, 2007).

iv. Previous history of abuse

This was asked towards all respondents, regardless of whether they answered "Yes" or "No" to any of the abuse questions. This was asked by means of a single question asking if they had experienced any of the abuse or neglect mentioned before the age of 60.

v. Risk of social isolation

The revised Lubben's social network scale (LSNS-6) with just six questions, was put forth to the elderly respondent, asking about the number of persons they heard from, could call for help, or talk to about personal matters, be it from among family or friends. The answers to each question were quantified on a Likert scale. This short scale assessed the risk of the elderly person for social isolation, with scores ranging from zero

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to thirty which were equally weighted responses. Scores <12 were deemed at risk for social isolation and those ≥12 deemed to have good social support and hence not at risk for social isolation as done in previous studies (Lubben et al., 2006).

3.3.8.2 Dependent variable

Conceptual definition of elder abuse

Elder abuse was the primary outcome, namely overall abuse. This consists of neglect, financial, psychological, physical and sexual abuse, in line with the WHO definition of elder abuse, mentioned in section 1.3. To reiterate, elder abuse thus covers both abuse and neglect, and may be defined as, "A single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person" (Krug et al., 2002), and covers the five subtypes of:

- Physical abuse – the infliction of pain or injury, physical coercion, or physical or drug induced restraint.
- Psychological or emotional abuse – the infliction of mental anguish.
- Financial or material abuse – the illegal or improper exploitation or use of funds or resources of the older person.
- Sexual abuse – non-consensual sexual contact of any kind with the older person.
- Neglect – the refusal or failure to fulfil a caregiving obligation. This may or may not involve a conscious and intentional attempt to inflict physical or emotional distress on the older person.

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Neglect may therefore be active, wherein the caregiver intentionally withholds things needed by the elder, or passive, which implies ignorance on the part of the caregiver of a need or of how to fulfil the elders needs (Rosenblatt, 1996).

Operational definition of elder abuse

Similar to the National Prevalence Survey of Elder Abuse and Neglect in Ireland, financial, physical and sexual abuse was defined as any one occurrence in the past 12 months as reported by the elder respondent, if this was perpetrated by someone in a position of trust such as family members, friends or neighbours. Psychological abuse and neglect was defined as ten or more occurrences in the past 12 months as reported by the elder respondent, again if this was perpetrated by someone in a position of trust such as family members, friends or neighbours. If there were less than ten such occurrences of psychological abuse or neglect in the past 12 months but this was perceived by the elderly respondent as having had a serious impact on them, then this was also taken to constitute psychological abuse or neglect.

The details of each subtype of abuse are as below.

i. Financial abuse assessment

Respondents were told they would be asked a few questions on their financial dealings with other persons who were known to them. Financial abuse was defined if, since turning 60, there were one or more occurrences in the past 12 months where the elderly respondent answered 'Yes' to one or more of the nine questions put forward, which was indeed perpetrated by a family member or someone in a position of trust, such as a friend or neighbour, excluding strangers.

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These questions, asked specifically since age 60, included:

- Has anyone stolen your money/ things/ property or documents?
- Has anyone prevented you from accessing your money/ things/ property or documents?
- Has anyone forced or cheated you into handing over your money/ things/ property or pension book against your will?
- Has anyone forced or cheated you into handing over the rights to your house/ property or pension book against your will?
- Has anyone forced or cheated you into altering your will or any other financial document against your will?
- Has anyone signed your name on a cheque/ pension book/ any financial documents against your will?
- Has anyone misused the power of attorney given by you or forced/ tricked you into signing over powers of attorney?
- Has anyone tried to or forced you to (but failed) in any of the previous attempts?
- Has anyone stopped contributing to household expenses such as rent or food which was previously agreed upon?

ii. Physical abuse assessment

Physical abuse was similarly defined, where one or more occurrences of physical abuse in the past 12 months since turning 60 years, by a family member or someone in a position of trust, was considered physical abuse of the elder.

The eight questions put forward to the elder, since turning age 60, were:

- Has anyone ever tried to slap or hit you?
- Has anyone pushed, shoved or slapped you?

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- Has anyone hit you, or tried to hit you with an object?
- Has anyone ever kicked you, bit you, or punched you?
- Has anyone ever burnt you or scalded you?
- Has anyone ever given you drugs or excessive medication with the purpose of controlling you or making you drowsy?
- Has anyone ever restrained you in any way such as locked you in a room or tied you to a chair?
- Has anyone ever threatened you with a knife or gun?

iii. Psychological abuse assessment

Psychological abuse, on the other hand, was defined to have occurred if there were ten or more incidents to any of the questions asked within the last 12 months since turning 60 years, perpetrated by a family member or someone in a position of trust. Alternatively, if it was less than ten occurrences, or if any one occurrence had a serious impact upon the elder, it was also taken as positive for psychological abuse.

As a prelude to these questions asking about abuse, the respondents were first read a few standard lines to broach this topic. This was, *"It doesn't matter how good our relationship is with other people, sometimes our family members or people we know and depend on will disagree and may get angry with us. Different people have different ways to deal with problems and disagreements. I will read out a list of things they might say or do".* Subsequently, elders were asked the following seven questions with respect to turning age 60:

- Has anyone called you harsh words, sworn at you or cursed at you?
- Has anyone verbally threatened you?

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- Has anyone belittled you or put you down?
- Has anyone repeatedly ignored you or didn't involve you?
- Has anyone ever threatened to harm your loved ones?
- Has anyone ever prevented you from seeing your loved ones, or even a doctor or nurse?
- Has anyone ever removed or prevented you from accessing your hearing or walking aids?

iv. Assessment of neglect

Neglect was similarly assessed, whereby ten or more occurrences of not receiving help in the last 12 months since turning 60 years where the elder was unable to perform the task by themselves, referring to both basic and complex activities of daily living, as well as access to basic amenities, was scored positive for neglect. If there were less than ten incidents in 12 months but the abuse was perceived by the elder to have had a serious impact upon them, this was also taken to be positive for neglect.

The Katz Activities of Daily Living, as adopted in the questionnaire used in the National Irish Prevalence Study of Elder Abuse and Neglect, was used with permission from its author, to evaluate neglect (Naughton et al., 2012). This covered both basic and complex activities of daily living including:

- cutting up and eating ones food,
- walking around the house,
- going to and using the toilet,
- dressing,
- washing and bathing,
- shopping for food and clothes,

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- preparing food,
- performing housework,
- taking own medication, and
- using public transport or driving themselves.

In addition to this, further questions on access to basic amenities such as:

- food,
- clean clothes,
- health care or medications, and
- shelter,

was enquired about, the key point being access to these basic needs as mentioned in the National Policy for the Elderly (Ministry of Women Family and Community Development. Malaysia, 2011). An affirmative response i.e. lack of access to any of these basic amenities was also scored as one point for neglect. All questions were referring to experiences since turning 60.

Many studies previously have used different methods to quantify neglect, and using the Katz ADL assessment to do so has been done by some researchers (Chokkanathan & Lee, 2006; Naughton et al., 2012; Pillemer & Finkelhor, 1988; Straus et al., 1996) previously. Even with various other tools used, similar elements are apparent in the questions posed to the elder respondent.

v. Sexual abuse assessment

Sexual abuse, similarly, was taken to have occurred if any one of the three questions put forth had been answered affirmatively in the past 12 months since turning age 60, and perpetrated by a family member or someone in a position of trust.

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This consisted of just three questions; however, the elderly person was first told, "Some of these may happen to only some elderly persons. It may or may not have happened to you. Even though these questions are rather sensitive, they are standard and I have to ask you this". Then they were asked, since turning age 60:

- Has anyone spoken to you in an unwanted sexual manner?
- Has anyone touched or tried to touch you in a sexual manner that was unwanted or without your consent?
- Has anyone forced you or tried to force you into intercourse against your will?

vi. Overall abuse

After each specific question pertaining to an abusive experience was asked, namely neglect, financial, psychological, physical and sexual abuse, the elderly respondent was asked how frequently it had occurred in the past 12 months, whether once, two to nine times, or ten times or more. They were also asked on how serious they perceived it to be, not serious, moderately serious or very serious. This was to enable scoring of each category of abuse as explained above, specifically neglect and psychological abuse, as the scoring of presence or absence of abuse depended on the severity of the abusive experience and the frequency.

After each subtype of abuse was asked for, this enabled overall abuse to be calculated, by the presence of any one occurrence of financial, physical, sexual, psychological abuse or neglect in the past 12 months.

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3.3.9 **Reporting abuse**

If the elderly respondent had answered "Yes" to any of the questions on neglect, financial, psychological, physical or sexual abuse, they were then asked further details on whether they had actually talked about this with, or disclosed this to anyone. A range of answers was read out to them for them to identify and pick out whom this person may be. Next they were asked if any action was taken by them, or on behalf of them, to prevent further such abuses from occurring. Again, a range of answers was read out to them for them to choose from. Lastly, the effectiveness of any such action was asked for, with a choice of answers being put forth to the elder to be selected from.

3.3.10 **Perpetrator characteristics**

Those elderly respondents who had answered affirmatively to any of the questions on abuse or neglect were asked further details on the perpetrator of the abuse, such as age, sex, marital status, cohabitation, place of occurrence, employment status, employment details, relationship to elder, duration of acquaintance, highest educational level, physical health problems, dependency or substance abuse issues, mental health problems, intellectual status, criminal record, and any other details as told by the elderly person. This was to elucidate as much information as possible from the elder regarding the perpetrator in a structured manner, making it easier to recall details or even answer the questions as most had a range of possible answers. Bearing in mind that sometimes the perpetrator was possibly a family member, all measures were taken to interview the elderly person in private. Sometimes, this was not possible as other family members were around in the vicinity. This was minimised by trying to interview them in another room or corner of the house, or other research team members engaging with family members and explaining about the project.

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3.3.11 **Data entry**

Following the collection of the questionnaires administered to elderly respondents, data was entered by research assistants working on this project, using SPSS software version 20.0 (SPSS Inc, 2009, Chicago, Illinois). Data cleaning was performed, checking for consistency, errors, and correctness of data entered with all questionnaires being kept safely in a locked storage area within the university premises accessible only to the researchers working on this project. Double data entry was done by two different persons, saving it as two different files and then comparing the two files, in order to check the consistency of data entered. Any parts not matching were checked with the original hard copy questionnaire accordingly. Any duplicate entries were also identified and removed. Outliers were checked by running the frequencies of all variables and checking the coding of each variable. An experienced research assistant was tasked with going through the completed data entries, to ensure completeness, no missing responses, double entry or other errors. This was again checked by the project leader to ensure thoroughness of data cleaning and data checking before data analysis was done. Data entry, data cleaning and data checking was done over a period of seven months.

3.3.12 **Data analysis**

Following data entry and data cleaning, data transformation was done by creating new variables using the 'Transform', 'Recode' or 'Compute' commands accordingly. All files were backed up from time to time for safety purposes. After the recoding of various variables, analysis was then performed; with significance values pre-set at 0.05 and 95% confidence interval reported where appropriate. All statistical analysis was performed using the SPSS software version 20.0 (SPSS Inc, 2009, Chicago, Illinois). Both descriptive and inferential analysis of data was done.

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For the descriptive analysis, data was presented as means ± standard deviations, median with interquartile range, counts and percentages, utilising complex sample analysis, weighting the data appropriately according to EB and LQ, and creating a file plan for the weightage of data. Continuous data, mainly for the objectively measured physical function measures, were checked for normality, by testing their skewness and kurtosis values. Where the distribution was seen to be not normally distributed looking at the histogram appearance, skewness and kurtosis of these variables, and the Kolmogorov-Smirnov statistic, they were transformed appropriately using the log 10 or square root of these variables (where appropriate) before further analysis was performed. Other basic continuous measures such as age were regrouped into categorical variables to enable meaningful further analysis and interpretation.

Counts (n) and percentages (%) were presented for all categorical variables. Following this, those categories with only few numbers of the sample were regrouped so as to collapse the variable into fewer categories for a meaningful analysis. This was done for age, ethnicity, income, education level, presence of stress, anxiety and depressive symptoms.

Logistic regression using complex sampling analysis was performed for both univariate and multivariate analysis. Complex sampling analysis was used to account for the sample design used, which was probability disproportionate to sample without replacement. Inferential analysis was performed to examine the association between each independent variable with the outcome variable of overall elder abuse.

Multivariate logistic regression was performed to show the association of all independent variables with overall elder abuse. The p-value of less than 0.25 was pre-set as the cut off value to choose independent variables from the univariate analysis to be entered into the multivariate logistic regression model, besides those independent

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variables taken as controls. The cut off value of $p < 0.25$ was chosen so as not to miss significant independent variables which may have been confounded during the univariate analysis (Hosmer, Lemeshow, & Sturdivant, 2013). Predictors with p-value less than 0.25 from the univariate analysis were thus fitted jointly into a multivariate logistic model. In the presence of multiple variables, some variables were found to be insignificant. The dependent variable of overall abuse was coded as (0) for no abuse and (1) for presence of abuse, abuse referring to any occurrence of financial, psychological, physical, sexual abuse or neglect in the past 12 months.

3.4 Summary

To summarise, this study used various tools put together to measure specifically, elder abuse and its various subtypes, as well as various factors found to be associated with it from previous literature review. In addition to that, those elders who self-reported abuse were asked further about disclosure of abuse, and the characteristics of the perpetrator. Besides focusing on the elder, to the best of my knowledge this was probably the first such quantitative study to offer a debriefing strategy for the interviewers.

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CHAPTER 4 : RESULTS

4.1 Response rate during survey

A total of 2,496 elderly respondents were listed in the sampling frame used for the survey. A total of 2,118 elders were successfully interviewed during the survey, which gave a response rate of 84.9%. The remaining 378 elderly persons who could not be interviewed had various reasons for non-participation. A total of 124 (33%) refused and had declined to participate, 49 (13%) were living at their children's house elsewhere at the time of the survey, 45 (12%) were not at home over multiple visits during the survey period, 42 (11%) were unable to communicate on their own, 34 (9%) had actually passed away from the date the census data was taken, 23 (6%) were not found, while another 23 (6%) had shifted away. The remaining 38 (10%) included elders whose names were duplicated, were unwell at the time of visit, had addresses listed wrongly or were not contactable. This is depicted in Figure 4.1 below.

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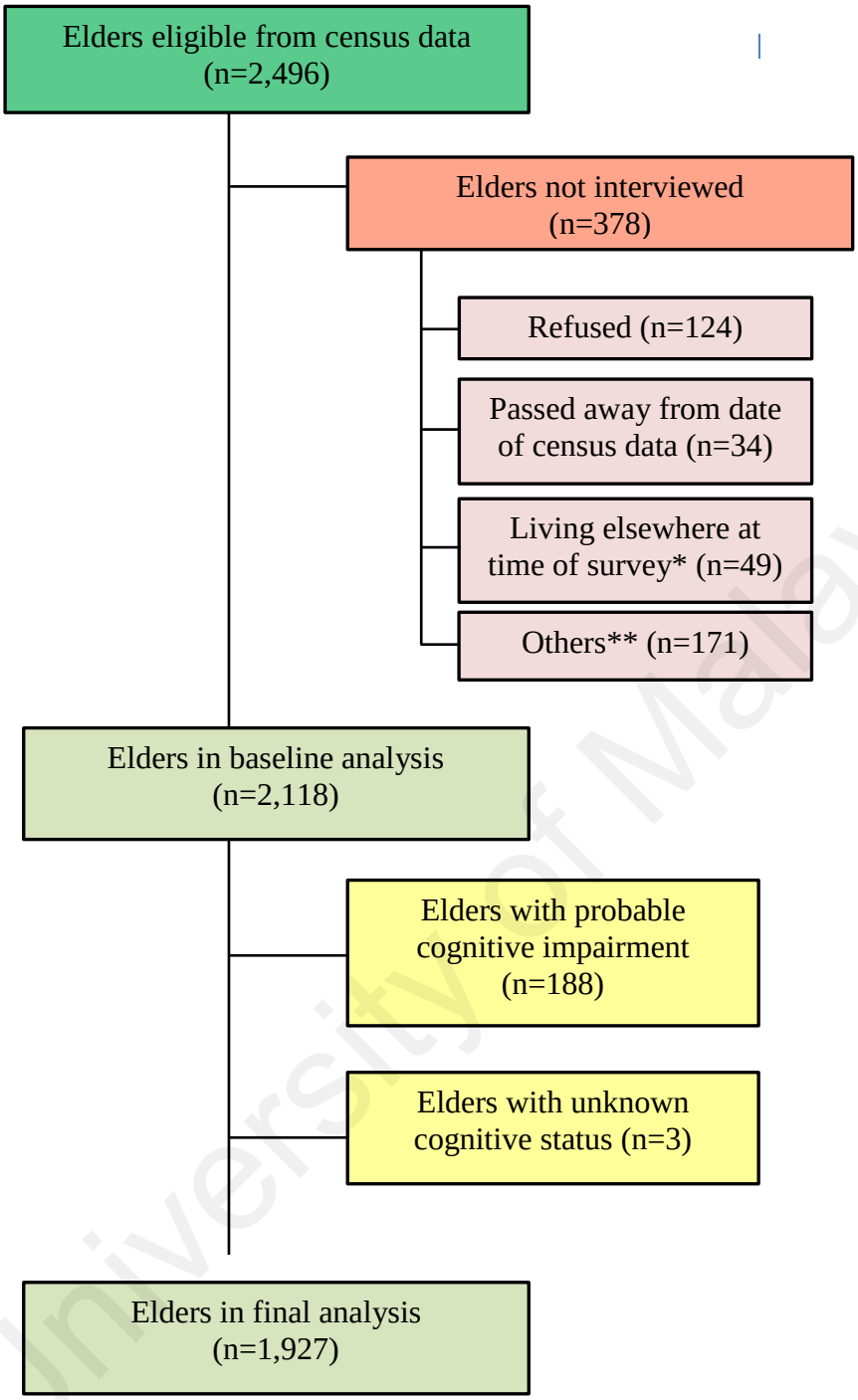

Figure 4.1: Flowchart depicting number of elder respondents in survey

*Living elsewhere at time of survey: usually in a rotational manner with adult children
** Others: includes elders who have shifted, were unable to communicate on their own, were not found, had shifted away, duplicated name of elder in database, were unwell at time of visit, incorrect address, non-contactable or not at home up to three times during survey period

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4.2 Basic characteristics of respondents and non-respondents

The basic characteristics of non-respondents, as obtained from the sampling frame provided by the Department of Statistics, included age, sex and ethnicity. Based on the 2,118 elderly who participated in this survey and the 378 elderly who did not, there are no differences in their characteristics as seen in Table 4.1.

Both groups have a similar distribution of ethnic groups, age and sex of respondents. Bumiputeras are the largest group of respondents, at over 90% for both respondents and non-respondents. The other two ethnic groups make up the remaining ten or so percent in similar proportions. The young-old (those aged 60 to 69 years) made up the largest group, followed by the old (70 to 79 years), and lastly the oldest-old (80 years and above), for both respondents and non-respondents. The proportion of females respondents at 62.9% compared to 37.1% males was rather similar to those of non-respondents, at 51.9% females and 48.1% males.

Table 4.1: Age, ethnicity and sex of respondents vs non-respondents

Characteristic	Respondents		Non-respondents	
	n	%	n	%
Age group				
60-64 years	554	26.2	79	20.9
65-69 years	425	20.1	88	23.3
70-79 years	852	40.2	145	38.4
80+ years	286	13.5	66	17.4
Total	2117	100.0	378	100.0
Ethnicity				
Bumiputera	2071	97.8	352	93.1
Chinese	17	0.8	17	4.5
Indian	30	1.4	9	2.4
Total	2117	100.0	378	100.0
Sex				
Male	800	37.8	182	48.1
Female	1317	62.2	196	51.9
Total	2117	100.0	378	100.0

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4.3 Baseline information

This section presents the sociodemographic profile of the population under study, followed by other health related parameters. Table 4.2 shows the baseline characteristics of all 2,118 respondents interviewed, prior to exclusion of those found to have probable cognitive impairment from further analysis. The findings for various parameters observed have been grouped by sex.

The socio-demographic characteristics of the elderly respondents show some similarities and some differences compared to census data (Department of Statistics Malaysia, 2010a, 2010b). The male to female ratio of 800 to 1318 respondents or roughly 1:1.6, was higher than the 1: 1.07 ratio shown by the Department of Statistics data for Kuala Pilah district. It is also higher than the Malaysian rural elderly population where the sex ratio is 1:1.2 (Ministry of Rural and Regional Development Malaysia, 2013).

The mean age of elderly respondents was 70.9 (SD7.5), with minimum and maximum age reported at 60 and 98 respectively. The age group breakdown for elderly, with young-old (60 to 69 years), old-old persons (70 to 79 years) and the oldest-old (80 years or more), was 45.9%, 40.5% and 13.3% of respondents respectively, compared to the census data for Kuala Pilah which was 59.3%, 30.5% and 10.2% respectively (Department of Statistics Malaysia, 2010a, 2010b).

Marital status of the respondents showed similar trends as that obtained from the census data, as 60.7% were married, 36.2% widowed, 1.9% single (never married), and 1.1% divorced in this study, compared to 68.4%, 25.6%, 5.1% and 0.8% respectively for Malaysian elderly (Department of Statistics Malaysia, 2010a, 2010b).

Bumiputera's make up the majority ethnic group, at 97.6%, compared to the minority Chinese or Indian ethnicities. Bumiputera's, loosely translated as sons of the soil, make

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up the majority of the native population of Malaysia. All but two were Bumiputera Malay, while two respondents were from the Orang Asli or ethnic indigenous tribes. For analysis purposes later, the Orang Asli were included in the general Bumiputera category. The ethnic component of the study respondents was 97.6% Bumiputera, 0.8% Chinese and 1.4% Indian. This differed from the Kuala Pilah district ethnic breakdown of 56.5% Bumiputera, 10.7% Chinese and 4.9% Indian. The elderly rural population of Malaysia is made up of 85.9% Bumiputera, 11.9% Chinese and 2.2% Indian (Department of Statistics Malaysia, 2010a, 2010b).

In terms of education, 61.2% of respondents had education up to primary school level, common in the days when independence was achieved in 1957, while 21.3% had continued to secondary schooling, and 13.5% had received no formal schooling at all. Income of respondents was categorised according to the poverty line income statistics from the Economic Planning Unit, Prime Ministers Department, Malaysia into hard core poverty, poverty and non-poor, cut-offs for monthly household income being taken as RM 440 or below, RM 700 or below and above RM 700 for each of these categories respectively (Economic Planning Unit. Prime Ministers Department Malaysia, 2007) whereby slightly more than half of respondents fell into the non-poor category and another half fell equally into the poor and hard core poor categories.

In terms of living arrangements, 90% or the majority of elderly respondents resided with another person, be it immediate family such as a spouse, parents, child, or other relatives such as grandchildren or in laws, either in their own house or relatives house. The remaining 10% lived by themselves. In terms of employment, a small percentage of eight percent were currently employed and receiving wages or an income.

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The random sample of elders drawn for the purposes of this survey is therefore similar to the demographics of the elderly population in Kuala Pilah district in terms of sex and age distribution (Department of Statistics Malaysia, 2010a).

4.3.1 **Socio-demographic characteristics**

Table 4.2: Socio-demographic characteristics of respondents

Characteristic	Sex				Total	
	Male		Female			
	n	%	n	%	n	%
Age group						
60-64 years	198	24.8	356	27.0	554	26.2
65-69 years	172	21.5	253	19.2	425	20.1
70-79 years	309	38.6	543	41.2	852	40.2
80+ years	121	15.1	165	12.6	286	13.5
Total	800	100.0	1317	100.0	2117	100.0
Marital status						
Married	686	85.7	630	47.9	1316	62.2
Widowed	95	11.9	638	48.5	733	34.6
Single	13	1.6	27	2.1	40	1.9
Divorced	6	0.8	19	1.4	25	1.2
Refuse to answer	0	0	2	0.1	2	0.1
Total	800	100.0	1315	100.0	2115	100.0%
Ethnicity						
Bumiputera Malay	777	97.1	1291	98.0	2068	97.6
Bumiputera indigenous	1	0.1	2	0.2	3	0.1
Chinese	10	1.3	7	0.5	17	0.8
Indian	12	1.5	18	1.4	30	1.4
Total	800	100.0	1318	100.0	2118	100.0
Education level						
No formal education	21	2.6	299	22.7	320	15.1
Primary school	515	64.4	775	58.8	1290	60.9
Secondary school	236	236	212	16.1	448	21.2
College / university	26	22	22	1.7	48	2.3
Others	2	0.3	10	0.8	12	0.6
Total	800	100.0	1318	100.0	2118	100.0

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Table 4.2 continued

Characteristic	Sex				Total	
	Male		Female			
	n	%	n	%	n	%
Income						
Hardcore poor (≤RM440)	115	14.5	323	24.7	438	20.8
Poor (RM441-700)	135	17.0	263	20.1	398	18.9
Non poor (>RM700)	544	68.5	724	55.3	1268	60.3
Total	794	100.0	1310	100.0	2104	100.0
Living arrangements						
Staying alone	36	4.5	164	12.4	200	9.4
Staying with others	764	95.5	1154	87.6	1918	90.6
Total	800	100.0	1318	100.0	2118	100.0
Current employment						
Employed	123	15.6	69	5.3	192	9.2
Not employed	666	84.4	1240	94.7	1906	90.8
Total	789	100.0	1309	1309	2089	100.0

*Percentage totals refer to columnar percentages

4.3.2 **Physical function measurements**

Table 4.3 shows the physical function status of the respondents as measured by walking speed and handgrip strength measurements. This was performed on those able to do so. The results exclude those found to have probable cognitive impairment. This group was excluded from all analysis to enhance accuracy of the self-reported measures.

The idea behind these performance based measurements was to have an objective indicator of functional limitation, one each for upper and lower extremities. This was measured by handgrip strength, and walking speed respectively. Both were taken as continuous variables without categorising into various quartiles or other cut-points, as no validation studies among Malaysian elderly populations have been done, and any sources citing specific cut-points have been done in western countries. The distribution of walking speed and handgrip strength readings were not normal and hence, data needed to be transformed. The logarithmic value of walking speed and square root of

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handgrip strength were found to provide a more normal distribution of these values and were used in further analysis.

Table 4.3 shows that as age increases, the physical function of both male and female elders are diminished, as seen by the increasing time taken to walk the same distance, and the lower handgrip strength measurements. A Kruskal-Wallis test revealed a statistically significant difference in each group of young-old, old-old and oldest-old categories among both sexes for both walking speed and handgrip strength measurements.

Table 4.3: Physical function measurements of respondents

	Mean (SD)	Median (IQR)	Mini-mum	Maxi-mum	Range	p-value*
Walking speed (m/s)						
Male						
Oldest-old (≥80 years)	7.00 (2.15)	6.31 (2.37)	4.01	14.38	10.37	<0.001
Old-old (70-79 years)	6.32 (2.07)	5.94 (1.94)	3.15	18.33	15.18	
Young-old (60-69 years)	5.44 (1.42)	5.22 (1.61)	2.8	13.78	10.98	
Female						
Oldest-old (≥80 years)	9.11 (3.81)	8.09 (4.74)	4.59	23.69	19.10	<0.001
Old-old (70-79 years)	7.55 (3.39)	6.84 (2.87)	3.52	44.17	40.66	
Young-old (60-69 years)	6.25 (1.99)	5.89 (1.87)	3.23	25.51	22.28	
Handgrip strength (kg)						
Male						
Oldest-old (≥80 years)	16.89 (6.70)	17.25 (8.38)	3.00	34.50	31.50	<0.001
Old-old (70-79 years)	22.40 (7.21)	22.00 (9.25)	2.00	45.00	43.00	
Young-old (60-69 years)	25.67 (7.70)	25.50 (10.13)	6.25	52.75	46.50	
Female						
Oldest-old (≥80 years)	9.82 (4.67)	9.00 (5.56)	1.50	23.00	21.50	<0.001
Old-old (70-79 years)	11.52 (4.96)	11.00 (6.88)	0.50	25.50	25.00	
Young-old (60-69 years)	14.36 (5.77)	14.00 (7.50)	0	35.25	35.25	

*p-value for Kruskal-Wallis test

4.3.3 **General health status**

Table 4.4 below shows the general health status of the elderly respondents. Before proceeding with this, a correlation analysis was performed to determine if there was an inherent relationship among the SF12*v*2 instrument mental component score (MCS) and

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the DASS21 instrument used to assess depressive symptomatology, anxiety and stress in the elder (see Appendix L).

Half of the elders reported experiencing below normal physical health as measured by the physical component scoring of the SF12*v*2 instrument. One in five reported below normal mental health as measured by the mental component scoring of the same instrument. However, no statistically significant difference between elderly males and females were seen with regards to these measures. As mentioned in section 2.8.3.2, functional impairment of the older person has been assessed in various ways in previous research, usually inability to perform activities of daily living, as measured by the Katz ADL, IADL or Barthel's Index. These were found associated with higher odds of abuse. However in this study, as the Katz ADL and IADL was already used to characterise neglect, by virtue of the inability of the older person to carry out these activities coupled with the failure of the caregiver to help the older person in those activities, another measure of mobility-disability was used. This was via a single question, whether the older person was able to go up a flight of stairs by themselves or not. One in ten had mobility issues when asked if they were able to go up a flight of stairs on their own, and were found significantly different between elderly males and females.

A total of 80% of respondents had some form of chronic disease, as previously told by a health care worker. The ECAQ screening showed that 188 or 9.6% of the elderly persons were cognitively impaired. To ensure the accuracy of answers, as the validity of answers hinged on elders self-reporting, this sub-group, as well as those elders with unknown cognitive status, were removed from further analysis,. The subsequent multivariate analysis, calculation of prevalence of abuse, number of experiences of abuse, and descriptive analysis pertaining to those abused was done with the remaining 1927 or 90.3% of the respondents. Stress was self-reported in the last seven days by 39 or 1.9% of respondents, anxiety by 83 or 3.9% of respondents, and depressive

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symptoms by 69 or 3.3% of respondents. These results, showing a statistically significant difference between elderly males and females, are as shown below.

Table 4.4: General health status of respondents

Characteristic	Sex				Total		p-value
	Male		Female				
	n	%	n	%	n	%	
General health status							
Physical health							
Normal	419	53.0	612	46.9	1031	49.2	0.07
Below normal	371	47.0	693	53.1	1064	50.8	
Total	790	100.0	1305	100.0	2095	100.0	
Mental health							
Normal	657	83.2	1079	82.7	1736	82.9	0.823
Below normal	133	16.8	226	17.3	359	17.1	
Total	790	100.0	1305	100.0	2116	100.0	
Mobility-disability							
Unable to go upstairs on own	72	9.0	185	14.0	257	12.1	0.01*
Able to go upstairs on own	728	91.0	1133	86.0	1861	87.9	
Total	800	100.0	318	100.0	2118	100.0	
Chronic disease							
Present	595	74.5	1059	80.4	1654	78.2	0.02*
Absent	204	25.5	258	19.6	462	21.8	
Total	799	100.0	1317	100.0	2116	100.0	
Cognitive impairment							
Probable	43	5.4	145	11.0	188	8.9	<0.001*
Borderline	52	6.5	200	15.2	252	11.9	
Normal	704	88.1	971	73.8	1675	79.2	
Total	799	100.0	1316	100.0	2115	100.0	
Stress							
No stress	786	99.5	1270	97.3	2056	98.1	0.001*
Stress	4	0.5	35	2.7	39	1.9	
Total	790	100.0	1305	100.0	2095	100.0	
Anxiety							
No anxiety	770	97.3	1249	95.3	2019	96.1	0.024*
Anxiety	21	2.7	62	4.7	83	3.9	
Total	791	100.0	1311	100.0	2102	100.0	
Depressive symptoms							
No depressive symptoms	777	97.9	1257	96.0	2034	96.7	0.031*
Depressive symptoms	17	2.1	52	4.0	69	3.3	
Total	794	100.0	1309	100.0	2103	100.0	

*statistically significant difference found between males and females as shown by $p<0.05$ for a chi-square test

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4.3.4 **History of prior abuse**

When respondents were asked if they had ever encountered any form of abuse prior to turning age 60, four percent of elders admitted to having been abused before (See Table 4.5). No statistical difference was found between elder males and elder females in reporting previous history of abuse (p=0.236). The three elders with unknown status of prior history of abuse were regrouped into the larger category of no history of abuse for this analysis purpose.

Table 4.5: History of abuse prior to age 60

Characteristic	Sex				Total		p-value
	Male		Female				
	n	%	n	%	n	%	
Abuse prior to 60 years							
History of abuse	26	3.3	58	4.5	84	4.0	0.236
No history of abuse	756	96.7	1235	95.5	1991	96.0	
Total	782	100.0	1293	100.0	2075	100.0	

4.3.5 **Risk of social isolation assessment**

A fifth of respondents were deemed to be at risk of social isolation assessed with the LSNS-6 instrument. However, no statistical difference was found between elder males and females in this regard (p=0.101).

Table 4.6: Risk of social isolation among elderly respondents

Characteristic	Sex				Total		p-value
	Male		Female				
	n	%	n	%	n	%	
Risk of social isolation							
At risk of social isolation	144	18.1	277	21.2	421	20.0	0.101
No risk of social isolation	651	81.9	1032	78.8	1683	80.0	
Total	795	100.0	1309	100.0	2104	100.0	

*p-value for chi square test

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4.4 Outcome of abuse evaluation

Data were weighted in two stages prior to analysis, at the EB level and the LQ level. EB level weightage was calculated as the number of EBs in the district over the total number of EBs actually chosen with elderly respondents in the survey, while LQ level weightage was calculated as the number of respondents in an EB over the number of respondents actually interviewed in that EB. The product of these two was the overall weightage factor used to estimate the prevalence of abuse and logistic regression analysis in the sections below.

4.4.1 Prevalence of elder abuse

In the survey, data was collected according to the categories of neglect, financial, psychological, physical and sexual abuse. Overall abuse is derived from all these five categories or subtypes of abuse, that is, any one type of abuse found present in the past 12 months was taken to be positive as overall abuse. Thus, overall abuse reflects a larger category of any subtype of abuse. This is shown as both weighted and unweighted prevalence in Table 4.7 and Table 4.8 below. Based on Table 4.7, the overall prevalence of elder abuse is 4.5%. Psychological abuse is the most frequent type of elder abuse, followed by financial, neglect, physical and lastly, sexual abuse.

In this study, 61 elders had responded 'Yes' when asked if they had experienced the various psychologically abusive behaviours in the past 12 months. However, in the analysis, only 38 of these 61 elders actually screened positive for psychological abuse, as 23 elders did not meet the criteria for psychological abuse caseness. Of these 38 elders screening positive for psychological abuse, 30 elders had experienced less than ten occurences in the past 12 months but had found it to be serious in nature and hence were classified as psychologically abused, while the remaining eight were those who

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had indeed experienced more than ten such occurences in the past 12 months regardless of severity. In contrast, for neglect, only two elders were detected to have less than ten occurences of neglect in the past 12 months but perceived as serious by the elder, as compared to the other 19 elders who experienced ten or more such occurence in the past 12 months, thus totalling the total of 21 cases of neglect.

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Table 4.7: Weighted prevalence of all types of abuse in the last 12 months

Type of abuse	Weighted prevalence*						General population estimate***	
	Male		Female		Total**			
	n	% (95% CI)	n	% (95% CI)	n	%, (95% CI)	N	95% CI
Overall abuse	40	5.2 (3.7, 7.4)	44	4.0 (2.8, 5.6)	84	4.5 (3.5, 5.7)	333	(252,414)
Psychological	16	2.2 (1.3, 3.8)	22	2.3 (1.4, 3.7)	38	2.2 (1.5, 3.2)	168	(106. 229)
Financial	16	2.1 (1.2, 3.6)	19	2.0 (1.2, 3.3)	35	2.0 (1.4, 3.0)	151	(93, 209)
Neglect abuse	10	1.6 (0.8, 3.1)	11	0.8 (0.4, 1.7)	21	1.1 (0.7, 1.8)	83	(42, 125)
Physical	5	0.4 (0.2, 1.0)	6	0.6 (0.2, 1.4)	11	0.5 (0.3, 1.0)	38	(13, 63)
Sexual	1	0.3 (0, 2.1)	0	-	1	0.1 (0, 0.8)	9	(-8, 26)

*Weighted for enumeration block (EB) and living quarters (LQ) as provided by DOS
**Total for overall abuse is > total of each subtype of abuse as multiple subtypes of abuse may have been experienced by an abused elder
*** General population refers to that of Kuala Pilah district

Table 4.8: Unweighted prevalence of all types of abuse in the last 12 months

Type of abuse	Unweighted prevalence				Total	
	Male		Female			
	n	%	n	%	n	%
Overall abuse	40	5.3	44	3.8	84	4.4
Psychological	16	2.1	22	1.9	38	2.0
Financial	16	2.1	19	1.6	35	1.8
Neglect abuse	10	1.3	11	0.9	21	1.1
Physical	5	0.7	6	0.5	11	0.6
Sexual	1	0.1	0	-	1	0.1

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4.4.2 **Distribution of abuse by specific abusive behaviour and sex**

An item analysis has been done to show the abuse particulars in detail. This is shown by each subtype of abuse to examine the type of abusive acts experienced by the elder respondent, by specific abusive behaviour and sex.

4.4.2.1 Psychological abuse

There were 38 cases of psychological abuse reported. From Table 4.9 below, it is seen that psychological abuse has most of its domains being answered with a "Yes". Most of the experiences reported by respondents were in relation to being cursed at, sworn at or called harsh names, followed by belittling the elder and ignoring or not involving them repeatedly. Figure 4.2 shows that elderly female respondents appear to be victimized more than elderly male respondents, or at least report certain psychologically abusive behaviours more, such as feeling ignored.

Table 4.9: Specific acts of psychological abuse

Types of psychological abuse	n*	%**
Curse or call harsh names	26	68.4
Verbally threaten	11	28.9
Belittle anything you do/ put you down	17	44.7
Ignore or not involve you repeatedly	16	42.1
Threaten to hurt your loved ones	3	7.9
Prevent from seeing loved ones or doctor/ nurse	3	7.9
Remove or stop you from using hearing/walking aid	0	0

*Denominator based on the 38 psychological abuse cases reported
**Percentage adds to >100% as elders may have experienced more than one act of psychologically abusive behaviour

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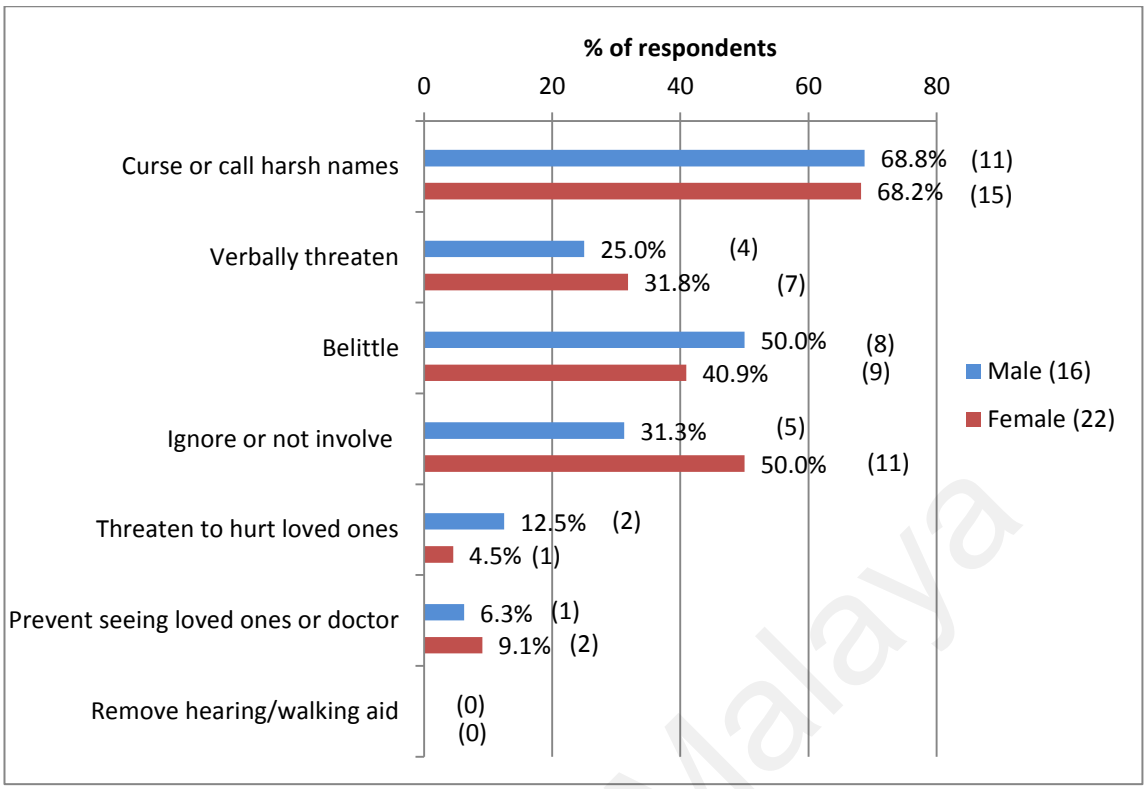

*Denominator for percentage based on number of specific psychologically abusive acts by sex

Figure 4.2: Specific acts of psychological abuse by sex

4.4.2.2 Financial abuse

A total of 35 elders reported experiencing some form of financial abuse. From Table 4.10, it is seen that financial abuse, has all domains answered "Yes", with the most frequent being theft of money or things including property or documents from the elderly respondent. This is followed by half of the respondents reporting that the caregiver stopped contributing towards household expenses such as rent or groceries which had been previously agreed upon. Figure 4.3 shows that elderly males report more experiences of financial abuse.

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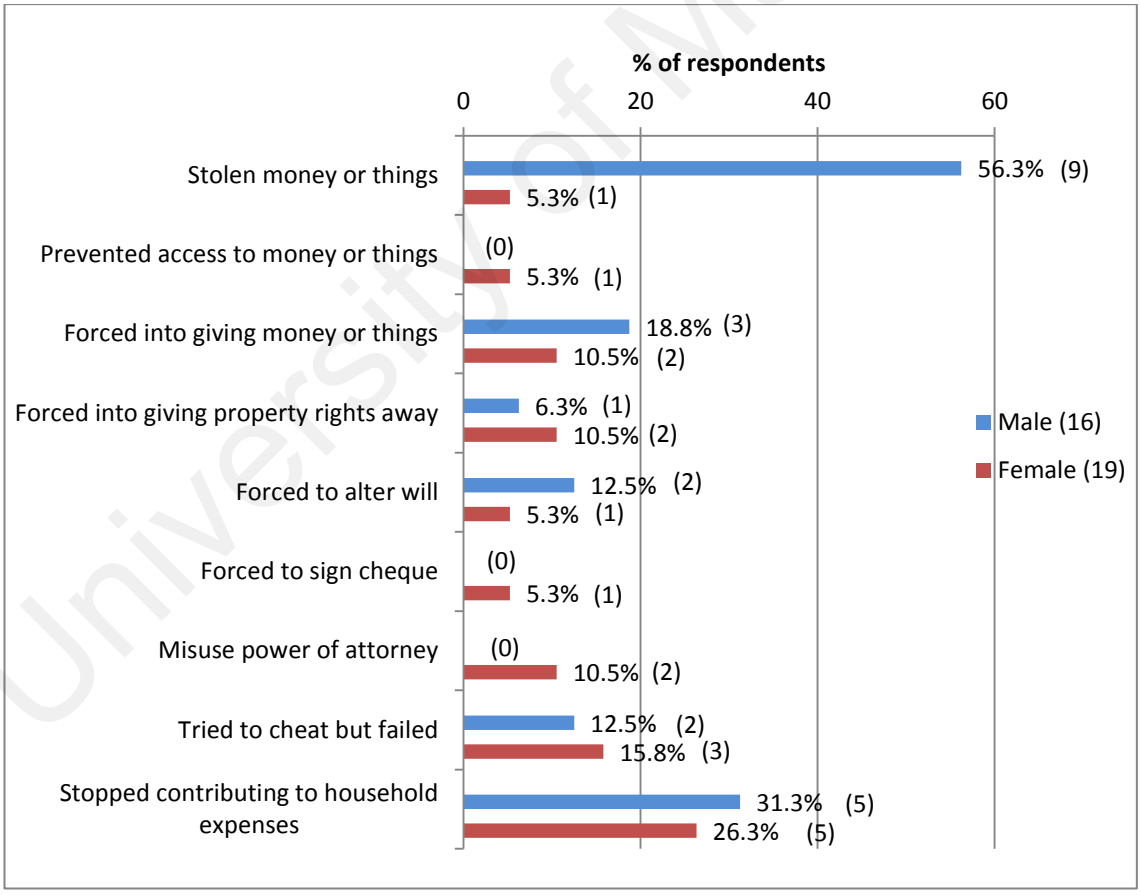
Table 4.10: Specific acts of financial abuse

Types of financial abuse	n*	%**
Stolen money, things, property or documents	10	28.6
Prevented access to money, things, property or documents	1	2.9
Manipulate or forced into giving money or things	5	14.3
Forced into giving property rights away	3	8.6
Forced to alter will or any other financial document	3	8.6
Forced to sign cheque, pension book, financial documents	1	2.9
Forced to hand over or misuse power of attorney	2	5.7
Tried/ forced to do any of above items but failed	5	14.3
Stop contributing to promised household expenses e.g. rent	10	28.6

*Denominator based on the 35 financial abuse cases reported
**Percentage adds to >100% as elders may have experienced more than one act of financially abusive behaviour



*Denominator for percentage based on number of specific financially abusive acts by sex

Figure 4.3: Specific acts of financial abuse by sex

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4.4.2.3 Neglect abuse

About 1.1% or 21 cases of neglect were reported by elder respondents. Table 4.11 shows the number of respondents who admitted to having problems with fulfilment of their various needs by their respective caregivers. Caregivers were the persons who usually aided them, such as family members, or persons known to them designated to help them. Of note is the lack of help with the basic amenities of life that is access to shelter, clean clothes, food, and medication, with most of the respondents scoring positive for neglect abuse being due to not receiving these basic needs for life. Few elderly had problems with fulfilling the basic or complex activities of daily living, mainly ability to take medicines correctly, use public transport or drive, and move about the house, either on their own or with the help of their usual walking aids. Figure 4.4 shows that this was experienced by a female elder respondent.

Table 4.11: Specific acts of neglect abuse

Types of neglect abuse*	n**	%***
Lack access to food	10	47.6
Lack clean clothes	16	76.2
Lack access to medicine	14	66.7
Lack shelter	18	85.7
Unable to shop for food and clothes	1	4.8
Unable to prepare food	0	0
Unable to do household chores	0	0
Unable to take medication in correct dosage	1	4.8
Unable to use public transport or drive	1	4.8
Unable to wash and bathe	0	0
Unable to move about house	1	4.8
Unable to use toilet	0	0
Unable to cut and eat food	0	0
Unable to wear clothes on own	0	0

*Neglect abuse refers to those elders who were unable to perform the various ADL on their own, requiring assistance from a caregiver and were denied such assistance on various occasions in the past 12 months, besides not being provided basic amenities of life i.e. food, clean clothing, access to medicine or shelter
**Denominator based on the 21 neglect abuse cases reported
***Percentage adds to >100% as elders may have experienced more than one act of neglect

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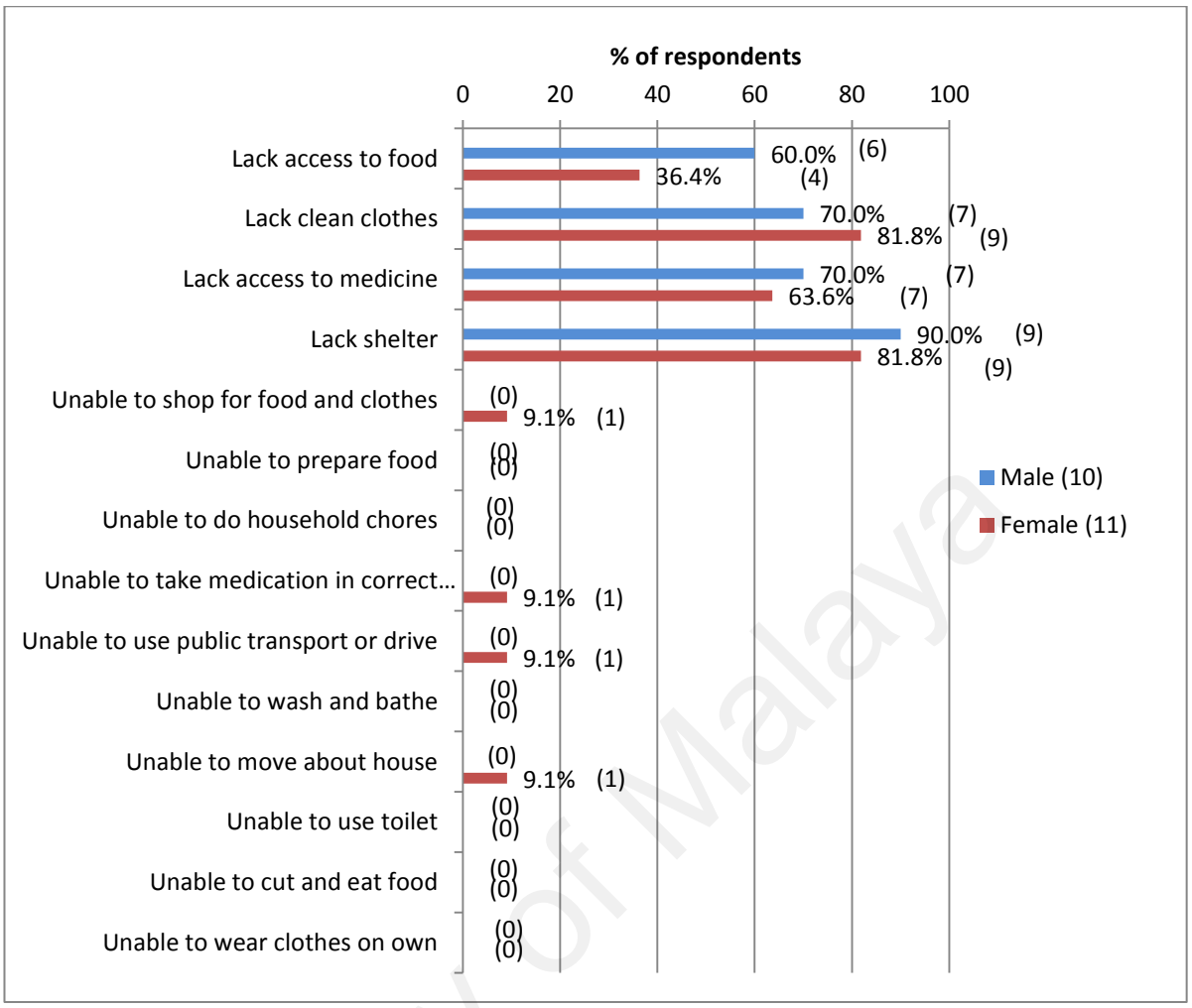

*Denominator for percentage based on number of specific acts of neglect by sex of elder

Figure 4.4: Specific acts of neglect abuse by sex

4.4.2.4 Physical abuse

Physical abuse was reported by 11 elder respondents. Table 4.12 shows that physical abuse is answered with a "Yes" for almost all its domains with elderly respondents reporting attempts to slap or hit them, being slapped, pushed or shoved, being hit with an object, kicked or bitten or hit with fists, restrained such as locked up in a room or tied to a chair, to being threatened with a knife or gun. Figure 4.5 shows that although physical abuse occurrence is lower than financial abuse and psychological abuse, the pattern is similar, with elderly females being more likely to experience instances of physical abuse than elderly males. No one reported being burnt or scalded, or being

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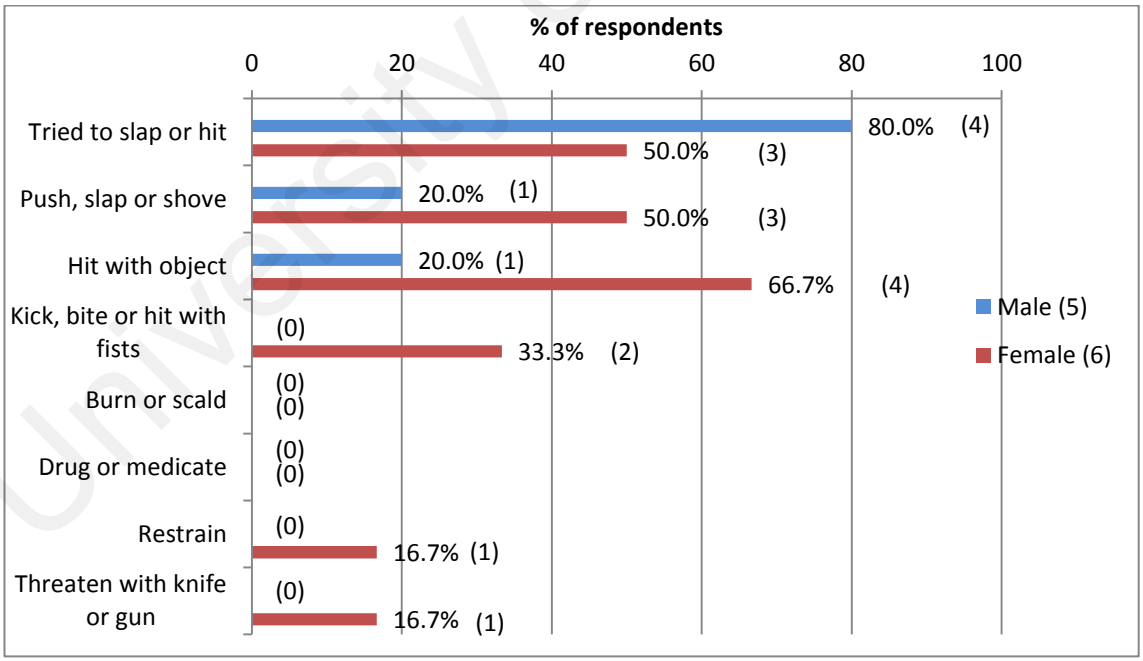
drugged or medicated excessively in order to control them or make them drowsy. One elderly respondent had been restrained before and one had been threatened with a weapon in the form of a knife.

Table 4.12: Specific acts of physical abuse

Types of physical abuse	n	%
Tried to slap or hit	7	63.6
Push, slap or shove	4	36.4
Hit with object	5	45.5
Kick, bite or hit with fists	2	18.2
Burn or scald	0	0.0
Drug or medicate	0	0.0
Restrain	1	9.1
Threaten with knife or gun	1	9.1

*Denominator based on 11 physical abuse cases reported
**Percentage adds to >100% as elders may have experienced more than one act of physically abusive behaviour



*Denominator for percentage based on number of specific physically abusive acts by sex of elder

Figure 4.5: Specific acts of physical abuse by sex

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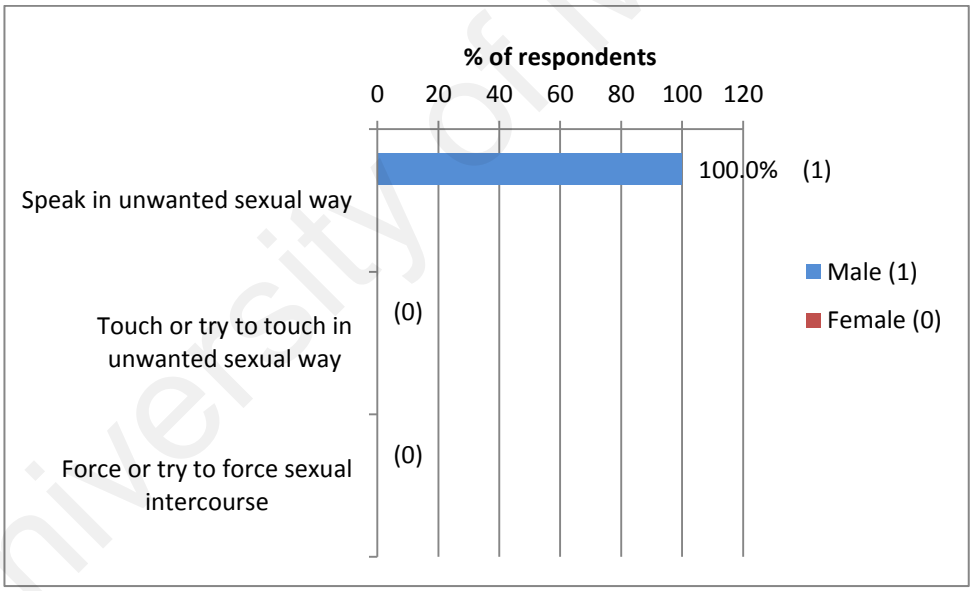
4.4.2.5 Sexual abuse

Based on Table 4.13, sexual abuse was the least common form of abuse reported by the elderly respondents. One respondent reported having experienced verbal harassment in the form of being spoken to in an unwanted sexual manner. Figure 4.6 shows that this experience was reported by an elderly male.

Table 4.13: Specific acts of sexual abuse

Types of sexual abuse	n*	%
Speak in unwanted sexual way	1	100.0
Touch or try to touch in unwanted sexual way	0	0.0
Force or try to force sexual intercourse	0	0.0

*Denominator based on the 1 sexual abuse case reported



*Denominator for percentage based on number of specific sexually abusive acts by sex of elder

Figure 4.6: Specific acts of sexual abuse by sex

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4.4.3 **Prevalence of elder abuse by subtypes of abuse and sex**

The number of experiences of abusive acts reported is taken as each individual question of abuse answered with a "Yes", for each subtype of abuse. This number would be a maximum of 14 for neglect, to reflect the 14 questions put forth for neglect abuse, nine for financial abuse, seven for psychological abuse, eight for physical abuse, and three for sexual abuse. These are summarised in Table 4.14 by grouping into experience of no abusive act encountered in the past twelve months, one abusive act in the past twelve months, or two or more such acts experienced in the past twelve months for each subtype of abuse.

The table shows that overall, two or more experiences of abuse in the past 12 months are more common than a single abusive experience. The results show no significant difference among elder males and elder females.

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Table 4.14: Prevalence of elder abuse by subtypes of abuse and sex (N=1,927)

Type of abuse	Number of subtype experiences	Male		Female		Total		Chi square (p-value)*
		n	%	n	%	n	%	
Overall abuse	0	716	94.8	1127	96.0	1843	95.6	2.98
	1	19	2.1	18	1.5	37	1.7	(0.23)
	≥2	21	3.1	26	2.5	47	2.7	
	Total	756	100.0	1171	100.0	1927	100.0	
Psychological abuse	0	740	97.8	1149	97.7	1889	97.8	-
	1	8	1.0	8	0.7	16	0.8	
	≥2	8	1.2	14	1.5	22	1.4	
	Total	756	100.0	1171	100.0	1927	100.0	
Financial abuse	0	740	97.9	1152	98.0	1892	98.0	-
	1	13	1.8	17	1.6	30	1.7	
	≥2	3	0.3	2	0.3	5	0.3	
	Total	756	100.0	1171	100.0	1927	100.0	
Neglect abuse	0	746	98.4	1160	99.2	1906	98.9	-
	1	2	0.2	3	0.2	5	0.2	
	≥2	8	1.4	8	0.6	16	0.9	
	Total	756	100.0	1171	100.0	1927	100.0	
Physical abuse	0	751	99.6	1165	99.4	1916	99.5	-
	1	4	0.3	2	0.2	6	0.2	
	≥2	1	0.1	4	0.4	5	0.3	
	Total	756	100.0	1171	100.0	1927	100.0	
Sexual abuse	0	755	99.7	1171	100.0	1926	99.9	-
	1	1	0.3	0	0	1	0.1	
	≥2	0	0	0	0	0	0	
	Total	756	100.0	1171	100.0	1927	100.0	

*p-value for chi-square statistic produced for males versus females
**Table percentages are columnar percentages

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4.4.4 **Clustering of abuse subtypes**

Clustering of abuse refers to the number of subtypes of abuse reported to have been experienced by the respondent in the past twelve months. As seen in Table 4.15 below, 3.3% of respondents had experienced one type of abuse, while 1.2% of respondents had experienced two to three types of abuse. No elder respondent had reported experiencing four or all types of abuse.

Table 4.15: Clustering of abuse experienced in the past 12 months

Number of types of abuse	Male		Female		Total	
	n	%	n	%	N	%
None	716	94.8	1127	96.0	1843	95.5
One type	34	4.3	33	2.7	67	3.3
Two types	4	0.6	8	1.0	12	0.8
Three types	2	0.4	3	0.4	5	0.4
Four types	0	0	0	0	0	0
Five types	0	0	0	0	0	0

4.5 Factors associated with elder abuse

Table 4.16 shows the distribution of all the independent variables or factors under study, stratified by the outcome of overall abuse. The sociodemographic portion shows that there are slightly more abused who are actually from the young-old group, compared to older aged elder respondents. There are slightly more males than females who are abused, while the majority are not married, of non-Malay ethnicity, and received no formal schooling or only completed primary level schooling. Those who are abused are more likely to be living in poverty compared to those non-abused. The majority of abused elders cohabited with others.

Based on the general health status of these elder respondents, 5.1% of those abused had below normal physical component scores using the SF12*v*2 instrument, while 12.2% of

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those abused had below normal mental component scores using the same instrument. A correlation analysis was done for the mental component scores and the DASS21. The correlation coefficient ranged between -0.288 to -0.391 for each of the DASS21 components as well as the overall DASS21 score tested against the MCS, showing that there was no large association found between the SF12v2 MCS used for mental health testing purposes and the depressive symptomatology, anxiety or stress presence in elders (Cohen, 1992) (see Appendix L). Thus, all these variables were retained in further analysis.

Slightly more than ten percent of abused elders had mobility issues, being unable to climb a flight of stairs on their own. The majority or 4.9% of abused respondents had some form of chronic disease as told by a health care worker, while 5.6% had borderline cognitive impairment, compared to 4.2% of those with no cognitive impairment. About one third of abused elders screened positive for stress, and a fifth screened positive for anxiety. Less than five percent of abused elders screened positive for having depressive symptoms. Almost one in twenty abused elders (17.3%) reported having experienced abusive acts before the age of 60, while almost ten percent of abused elders were found to be at risk of social isolation.

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Table 4.16: Distribution of variables according to presence of overall abuse (N=1,927)

Characteristics	Abused		Non-abused		Total
	n	%	n	%	N
Sociodemographic factors					
Age					
Oldest-old (80+ years)	8	4.4	175	95.6	183
Old-old (70-79 years)	29	3.7	752	96.3	781
Young-old (60-69 years)	47	4.9	915	95.1	962
Sex					
Male	40	5.3	715	94.7	755
Female	44	3.8	1127	96.2	1171
Marital status					
Not married	7	10.9	57	89.1	64
Widowed	19	3.1	593	96.9	612
Married	58	4.6	1193	95.4	1251
Ethnicity					
Non Malay	6	13.3	39	86.7	45
Malay	78	4.1	1804	95.9	1882
Educational level					
Secondary or higher	16	3.2	489	96.8	505
None or primary	68	4.8	1354	95.2	1422
Poverty					
Hardcore poor (<RM440)	19	5.3	341	94.7	360
Poor (RM441-700)	20	5.8	327	94.2	347
Non-poor (>RM700)	44	3.6	1164	96.4	1208
Living arrangements					
Staying alone	12	6.7	168	93.3	180
Staying with others	72	4.1	1675	95.9	1747
Current employment					
Currently employed	11	5.8	179	94.2	190
Not currently employed	72	4.2	1648	95.8	1720
General health status					
Physical health composite score of SF12v2					
Below normal	47	5.1	871	94.9	918
Normal	37	3.7	954	96.3	991
Mental health composite score of SF12v2					
Below normal	35	12.2	252	87.8	287
Normal	49	3.0	1573	97.0	1622
Mobility-disability					
Unable to climb stairs on own	13	7.6	158	92.4	171
Able to climb stairs on own	71	27.7	185	72.3	256
Chronic disease					
Presence of any one disease	73	4.9	1431	95.1	1504
No chronic disease	11	2.6	410	97.4	421

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Table 4.16 continued

Characteristics	Abused		Non-abused		Total
	n	%	n	%	N
Cognitive impairment					
Borderline	14	5.6	238	94.4	252
None	70	4.2	1605	95.8	1675
Stress					
Stress	9	31.0	20	69.0	29
No stress	75	4.0	1806	96.0	1881
Anxiety					
Anxiety	15	24.2	47	75.8	62
No anxiety	69	3.7	1785	96.3	1854
Depressive symptoms					
Depressive symptoms	69	3.7	1803	96.3	1872
No depressive symptoms	14	31.1	31	68.9	45
Total	83	4.3	1834	95.7	1917
History of abuse					
Abuse prior to age 60	14	17.3	67	82.7	81
No abuse prior to age 60	68	3.8	1735	96.2	1803
Risk of social isolation					
At risk of social isolation	28	8.2	315	91.8	343
Not at risk of social isolation	53	3.4	1519	96.6	1572

*Table percentages are row percentages

4.5.1 **Analysis of factors associated with elder abuse**

Further to this breakdown of elder abuse, complex sampling analysis was done to draw associations between the various factors under study with the outcome of elder abuse. This was done for overall abuse of elders. Multivariate analysis to determine an association between individual subtypes of abuse and various factors was not performed due to small sample size, which would not draw a meaningful conclusion. The analysis was weighted at both the EB and LQ level as mentioned before in section 3.3.4.2.

It should be noted here that in performing the univariate and multivariate analysis, elder respondents were regrouped by age into three categories, that is young-old between age 60 and 69, old between 70 and 79, and the oldest old of 80 years and above. Ethnic groups were classified into Malays and non-Malays, where Malay covered all

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Bumiputera, and non-Malay referred to Chinese and Indian ethnic groups. Bumiputeras here included both the majority of Bumiputera Malays, and two individual Bumiputera of indigenous tribal group of Orang Asli. A total of 188 elderly respondents with probable cognitive impairment were excluded before performing the analysis.

From Table 4.17, it is seen that testing the factors associated with overall abuse, the factors which were significantly associated with elder abuse in a univariate analysis at a significance level of 0.25 (Bursac, Gauss, Williams, & Hosmer, 2008) were being male, having a secondary level schooling or higher, in current employment, having below normal mental health, having any one type of chronic disease, being stressed, anxious or having depressive symptoms, a history of abuse prior to age 60 as well as being at risk of social isolation.

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Table 4.17: Univariate analysis of factors associated with overall abuse

Characteristics	Odds Ratio	95% Confidence Interval		p-value
		Lower	Upper	
Age				
Old-old (80+ years)	0.79	0.27	2.26	0.445
Old (70-79 years)	0.66	0.35	1.26	
Young-old (60-69 years)	1			
Sex				
Male	1.70	0.95	3.06	0.076*
Female	1			
Marital status				
Not married	2.19	0.60	8.06	0.349
Widowed	0.78	0.38	1.59	
Married	1			
Ethnicity				
Non Malay	1.51	0.41	5.57	0.537
Malay	1			
Educational level				
Secondary or higher	2.13	1.03	4.42	0.042*
None or primary	1			
Poverty				
Hardcore poor (<RM440)	1.85	0.89	3.83	0.252
Poor (RM441-700)	1.24	0.60	2.56	
Non-poor (>RM700)	1			
Living arrangements				
Staying alone	1.59	0.67	3.77	0.294
Not staying alone	1			
Current employment				
Currently employed	2.03	0.90	4.57	0.088*
Not currently employed	1			
Health status (Physical function)				
Walking speed	1.80	0.28	11.56	0.534
Handgrip strength	1.15	0.82	1.61	0.411

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Table 4.17 continued

Characteristics	Odds Ratio	95% Confidence Interval		p-value
		Lower	Upper	
General health status				
Physical health				
Below normal	1.10	0.615	1.98	0.740
Normal	1			
Mental health				
Below normal	4.14	2.18	7.87	<0.001*
Normal	1			
Mobility-disability				
Unable to climb stairs on own	1.36	0.30	6.11	0.688
Able to climb stairs on own	1			
Chronic disease				
Presence of any one disease	1.97	0.89	4.36	0.097*
No chronic disease	1			
Cognitive impairment				
Borderline	1.17	0.50	2.76	0.724
None	1			
Stress				
Stress	5.04	1.17	21.74	0.030*
No stress	1			
Anxiety				
Anxiety	6.21	2.22	17.38	0.001*
No anxiety	1			
Depressive symptoms				
Depressive symptoms	11.78	4.08	34.06	<0.001*
No depressive symptoms	1			
History of abuse				
Prior to age 60	4.29	1.72	10.70	0.002*
No abuse prior to age 60	1			
Social isolation				
At risk of social isolation	2.67	1.42	5.02	0.002*
Not at risk of social isolation	1			

*Significant at p<0.250

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For multivariate analysis, variables with a significance level of <0.25 (Bursac et al., 2008; Hosmer et al., 2013) were entered into the model. The factors significant in the univariate analysis were thus entered, besides the basic demographic factors of age, sex, marital status, ethnicity, education and income, which were entered regardless of their significance value in the univariate analysis. The six factors significantly associated with overall elder abuse after adjustment at a significance level of $p<0.05$ were being male, having secondary school level education or higher, below normal mental health, having depressive symptoms, those with a history of abuse prior to age 60 and those at risk of social isolation (See Table 4.18).

Elderly males were found to be almost twice as likely as elderly females to be abused (aOR 1.70, 95% CI 1.05, 3.06). Those with secondary level schooling or higher were also twice as likely to be abused (aOR 2.13, 95% CI 1.03, 4.42). Those with poor mental health were four times as likely to be abused than those with normal mental health status (aOR 4.14, 95% CI 2.18, 7.87), while those with depressive symptoms were almost twelve times more likely to be abused (aOR 11.78, 95% CI 4.08, 34.06). Those with a prior history of abuse were 4.29 times more likely to be abused (aOR 4.29, 95% CI 1.72, 10.69), while those at increased risk of social isolation had a 2.67 higher odds of being abused (aOR 2.67, 95% CI 1.42, 5.02).

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Table 4.18: Multivariate analysis of factors associated with overall abuse

Characteristics	Adjusted Odds Ratio	95% Confidence Interval		p-value
		Lower	Upper	
Sex				
Male	1.70	1.05	3.06	0.017*
Female	1			
Educational level				
Secondary or higher	2.13	1.03	4.42	0.037*
None or primary	1			
Current employment				
Currently employed	2.03	0.90	4.57	0.154
Not currently employed	1			
General health status				
Mental health				
Below normal	4.14	2.18	7.87	<0.001*
Normal	1			
Chronic disease				
Presence of any one disease	1.97	0.89	4.37	0.121
No chronic disease	1			
Stress				
Stress	5.04	1.17	21.74	0.119
No stress	1			
Anxiety				
Anxiety	6.21	2.22	17.38	0.056
No anxiety	1			
Depressive symptoms				
Depressive symptoms	11.78	4.08	34.06	<0.001*
No depressive symptoms	1			
History of abuse				
Prior to age 60	4.29	1.72	10.70	0.012*
No abuse prior to age 60	1			
Social isolation				
At risk of social isolation	2.67	1.42	5.02	0.008*
Not at risk of social isolation	1			

**Significant at p<0.05, controlled for age, sex, marital status, ethnicity, education and income

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4.6 Reporting of abuse

Of the 2,118 elderly respondents interviewed, 1,927 elderly respondents were included in the analysis. Of these 1,927, 84 screened positive for elder abuse in the past 12 months, with half of them disclosing of that abuse to another person. This section is describing the 84 elderly respondents with self-reported experience of abuse in the past 12 months.

4.6.1 Age when elder abuse began

From Table 4.19 below, it is seen that of the 84 abused respondents, the majority or 57.2% did not recall or did not share information regarding when the abuse started. Of the remaining, half admitted to the abuse beginning in their sixties, a few in their seventies and only one in their eighties. Seven elderly respondents also had the abuse beginning before they were 60 years of age and continuing now.

Table 4.19: Age when elder abuse began

Age when elder abuse first started occurring	n	%
Below 60 years till now	7	8.3
60 to 69 years	20	23.8
70 to 79 years	8	9.5
80 years and above	1	1.2
Refuse to answer	48	57.2
Total	84	100.0

4.6.2 Disclosure of abuse

Based on Table 4.20, around one third of these abused elderly did not mention if they had told anyone about the abusive acts happening to them. Almost half admitted to informing someone else about the abuse that had happened to them since turning age 60. One fifth of elders were bearing this burden in silence as they admitted to not telling anyone about the abuse.

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Table 4.20: Disclosure of elder abuse

Disclosure of any occurrence of elder abuse	n	%
Yes	40	47.7
No	16	19.0
Refuse to answer	28	33.3
Total	84	100.0

4.6.3 **Person to whom disclosed of abuse**

Among abused elderly who had disclosed of abuse to someone, the majority informed a family member of the abusive event (See Table 4.21). The most common family member confided in was actually an adult daughter. After family members, police personnel were the next chosen person to disclose of abusive acts, followed by friends and neighbours in equal proportions, and lastly, doctors. None had chosen to disclose of the abuse to nurses, welfare officers, or avail of telephone hotlines for support. The respondents were allowed to choose multiple responses for persons to whom they disclosed of abuse.

Table 4.21: Person to whom disclosed of abuse

Person to whom disclosed of abuse	n*	%
Family	35	62.5
Friend	4	7.1
Neighbour	4	7.1
Nurse	0	-
Doctor	3	5.4
Welfare officer	0	-
Police	8	14.3
Hotline	0	-
Others	2	3.6
Total	56	100.0

*Elders allowed to choose ≥1 person to whom disclosed of abuse

4.7 Consequences of reporting

Table 4.22 shows that of the 62 elderly respondents who disclosed of the abuse, 24 had no action taken to avoid further abuse, while 38 had some forms of action taken. Of the

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24 who took no action or had no action taken on their behalf, the abuse stopped by itself in 13 cases without any intervention, while it was still going on in the other 11. These elders with ongoing abuse were referred by the researcher to the Kuala Pilah district health office for further action. Among those elders who reported to have had some forms of action taken, 12 elders had taken it upon themselves to speak with the person perpetrating the abuse. A further 13 had another person such as a family member or friends speak to the perpetrator. Six elders who had disclosed of the abuse had a professional such as a doctor or police personnel speak to the perpetrator of abuse. Another six elders who had disclosed of this ended up avoiding the person perpetrating the abuse. In rare situations, the elder person withdrew and stopped socialising altogether, while none had actually obtained a restraining order against the perpetrator.

Table 4.22: Action taken on disclosing of abuse

Action taken by or on behalf of older person to avoid further abuse	Action taken	
	n*	%
No action	24	28.6
Some action taken	38	45.2
Refuse to answer	22	26.2
Total	84	100.0

*Total reflects on 62 elders who answered, with multiple responses allowed for the 38 who answered that they had some action taken

Regardless of whether the elder disclosed of the abuse to another person or had some sort of action taken by them or on their behalf, from Table 4.24, it is seen that in a quarter of abused respondents, the abuse was still going on, while in the rest, it had stopped or reduced somewhat. The table shows that 52 elders had some or no measures taken, which corresponds to the 62 elders (with multiple responses allowed) who answered on having had various forms of action taken to avoid further abuse.

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Table 4.23: Effectiveness of measures taken to prevent further abuse

Effectiveness of various actions taken to prevent further abuse	n	%
Not effective, the abuse continues / is still going on	21	25.0
Effective, the abuse reduced	8	9.5
The abuse stopped -and did not take place again	23	27.4
Refuse to answer	32	38.1
Total	84	100.0

*Table percentages are column percentages with total referring to 84 elders with self-reported abuse

4.7.1 **Impact of abuse in terms of physical injuries**

Of the reported physical abuse, not all victims sustained injuries. About one fifth of those reporting physical abuses required treatment by a doctor at a clinic or even the emergency department, as reported in Table 4.25.

Table 4.24: Physical injuries resulting from elder abuse

Physical injuries	n	%
None	5	45.5
Mild injury	3	27.2
Sought medical care	3	27.3
Total	11	100.0

4.8 Perpetrator characteristics

The elderly respondents were asked to provide details about the perpetrator of abuse. These characteristics are as reported by the elderly respondents as shown in Table 4.20 below. The majority of perpetrators were adults; one third was actually other elderly persons while some were youngsters aged below 25 years. Most were males, and married, however not staying together with the victim. The abuse generally occurred at the home of the victim, and was perpetrated by an adult child or other family member of the elder, such as children-in-law or siblings, while in one instance it was the granddaughter of the elderly respondent. In most cases, the elder knew the perpetrator

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over many years, ranging from two to sixty years. Almost half of the perpetrators had some formal schooling.

Most perpetrators did not have physical health problems. Almost ten percent had substance addiction problems, and another ten percent had some mental health problem. Sometimes these details were not known by the elder respondent. Four percent of the perpetrators were said to have a previous criminal record as well.

Some abused elders refused to answer when asked about details of the perpetrator. This ranged from 19.2% to 49.0% of abused elders. These elders are largely males, with normal cognitive status, of Bumiputera ethnicity, young elderly between ages 60 to 69 years, and with primary level education. 64% of abused elderly who declined to answer about perpetrators were actually reported to be related to the perpetrator.

Table 4.25: Elder abuse perpetrator characteristics

Characteristic	**Perpetrator**	
	n	**%**
Sociodemographics		
Age		
Youth 18 to 25 years	8	7.7
Adults 26 to 59 years	33	31.7
Elderly 60 years or more	15	14.4
Not known	48	46.2
Total	104	100
Sex		
Male	50	48.1
Female	34	32.7
Refuse to answer	20	19.2
Total	104	100.0
Marital status		
Married/ in union	60	57.7
Separated	2	1.9
Divorced	3	2.9
Single	12	11.5
Widowed	2	1.9
Not known	25	24.0
Total	104	100.0

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Table 4.26 continued

Characteristic	Perpetrator	
	n	%
Highest education level		
Not educated	5	4.8
Primary school	19	18.3
Secondary school	23	22.1
College/university	7	6.7
Not known	26	25.0
Refuse to answer	24	23.1
Total	104	100.0
Employment status		
Working	40	38.5
Unemployed	38	36.5
Not known	26	25.0
Total	104	100.0
Living arrangements		
Living arrangements at time of abuse		
Living in same household	13	12.5
Not living in same household	69	66.3
Refuse to answer	22	21.2
Total	104	100.0
Perpetrator still living with elder		
Yes, still in same household	8	7.7
No, not in same household	69	66.3
Sometimes	1	1.0
Refuse to answer	26	25.0
Total	104	100.0
Place where abuse occurred		
Elder’s house	44	42.3
Relative's house	3	2.9
Friend's house	1	1.0
Others	36	34.6
Refuse to answer	20	19.2
Total	104	100.0
Relations		
Relationship of elder with perpetrator		
Husband/ wife/ partner	5	4.8
Adult child	19	18.3
Other relatives	31	29.8
Friend	6	5.8
Neighbour	13	12.5
Non-relative	5	4.8
Social worker	1	1.0

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Table 4.26 continued

Characteristic	Perpetrator	
	N	%
Refuse to answer	24	23.1
Total	104	100.0
Duration of acquaintance with perpetrator		
≤ 1 year	2	1.9
> 1 to 2 years	5	4.8
> 2 to 5 years	13	12.5
> 5 to 10 years	3	2.9
> 10 to 30 years	12	11.5
> 30 to 60 years	16	15.4
> 60 years or more	2	1.9
Refuse to asnwer	51	49.0
Total	104	100.0
Health status and risky behaviour		
Physical health problem of perpetrator		
Yes	7	6.7
No	58	55.8
Not known	15	14.4
Refuse to asnwer	24	23.1
Total	104	100.0
Addiction problem of perpetrator		
None	47	45.2
Alcohol	1	1.0
Drugs	9	8.7
Gambling	0	0.0
Not known	24	23.1
Refuse to answer	23	22.1
Total	104	100.0
Mental health problem of perpetrator		
Yes	9	8.7
No	51	49.0
Not known	22	21.2
Refuse to answer	22	21.2
Total	104	100.0
Perpetrator has criminal record		
Yes	4	3.8
No	56	53.8
Not known	22	21.2
Refuse to answer	22	21.2
Total	104	100.0

*Total >84 as multiple perpetrators allowed per respondent

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4.9 Summary of results

In summary, 84 of 1,927 elderly respondents answered "yes" to having experienced abuse in the past 12 months, giving an overall abuse prevalence of 4.5%. Psychological abuse was the most frequent subtype, followed by financial, neglect, physical and sexual abuse. Males appeared to be more at risk of abuse than females. The factors associated significantly with abuse were male sex, secondary schooling or higher educational level, below normal mental health, having depressive symptoms, a prior history of abuse before age 60 and elders at risk of social isolation.

Abuse tended to occur most frequently at the elder's own house, with perpetrators usually being amongst family members. Elders disclosed of abuse to other family members generally, with various outcomes.

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CHAPTER 5 : DISCUSSION

5.1 About this chapter

This chapter compares the findings of this study with other studies done, thus giving a better idea of what the results mean in this context. This is especially so as this is the first ever study done on this topic in Malaysia, to the best of my knowledge. Further to that, the strengths and limitations of this study are discussed. This section is meant to put into perspective the findings of this study in relation to the objectives outlined at the beginning; that was to study elder abuse among rural community dwelling elders in Kuala Pilah district, Negeri Sembilan state, Malaysia. Specifically, this study aimed to establish the prevalence of elder abuse, to determine the factors associated with elder abuse, to investigate how elders report of abuse and lastly, to describe perpetrator characteristics associated with elder abuse. Identifying the prevalence, factors associated, disclosure of abuse and perpetrator characteristics would help to identify elder persons at risk, besides providing baseline information that would guide future research and public health programmes.

5.2 Response rate during survey

The response rate of 84.9% being more than eighty percent, is high for a community based survey, showing that the results obtained are generalizable to the target population of elders in Kuala Pilah district. Section 4.3.1 has also shown that sex and marital status of the elderly respondents generally corresponded to that of the local Kuala Pilah elderly population and the Malaysian rural elderly population. The age breakdown too showed more young elderly than old elderly, similar to both Kuala Pilah and the Malaysian rural elderly population. Similarly, Bumiputeras remained the largest ethnic group.

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Often it is not easy to get the cooperation of people for face-to-face interviews on sensitive topics. This shows that the team members were motivated and did their best to locate respondents, calling up to three times before proceeding with the interview, and the responsiveness exhibited by the elderly respondents. Having the refresher or debriefing sessions for the interviewers to boost their morale had helped with keeping the interviewers motivated throughout the survey period.

5.3 Prevalence of abuse

The prevalence of overall abuse in the past 12 months was 4.5%, obtained from the 84 elderly respondents who screened positive for abuse out of the 1,927 included in the final analysis. This was higher than the 2.2% prevalence estimate of the National Prevalence Survey on Elder Abuse in Ireland, from which the instrument on assessment of abuse was based upon (Naughton et al., 2012). A recent study in Portugal, drawing upon a similar instrument as the National Prevalence Survey on Elder Abuse in Ireland, had obtained an overall prevalence of 12.3% (Gil et al., 2014). The other studies utilising similar means of assessment, the CTS2, from which the Irish study instrument was based, had obtained prevalence estimates of 2.6% in the UK, 3.24% in the USA (Biggs et al., 2009; Lifespan of Greater Rochester Inc. Weill Cornell Medical Center of Cornell University & New York City Department for the Aging, 2011) and 4.6% also in the USA (Burnes et al., 2015). Comparing studies done in the Asian region closest to Malaysia, perhaps with elements of a similar culture, were studies in India and Thailand, both with prevalence rates of 14%. In India a similar means of assessment was used, however sexual abuse was not evaluated. The Thai study also used the elder abuse definition adopted by the WHO, however utilising a different tool with only six questions coupled with subjective evaluation by the researchers to assess abuse (Chokkanathan & Lee, 2006; Chompunud et al., 2010). This figure of 4.5% is therefore

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within the continuum from 2.2% to 14% of studies which are similar in terms of instrument or culture.

5.3.1 **Number of experiences of abuse**

The number of abusive experiences was reported by two of the 35 studies reviewed, that is they had reported the number of elders who experienced one or more occurrences of abusive incidents. This was 30.7% in Portugal, which had a 40.4% overall prevalence of abuse (Gil et al, 2014), and 32.8% in Thailand (Chompunud et al., 2010), which had a 14.6% overall prevalence. This study finding too showed that 1.7% of elders had experienced one abusive act while 2.7% of elders had experienced two or more abusive acts in the past 12 months.

5.3.2 **Clustering of abuse**

In this study, elders who experienced more than one type of abuse was a common finding. In the USA study on a Latino population, 40% of victims had experienced one type of abuse, while 21% were subjected to multiple types of abuse (DeLiema et al., 2012). This was similar to the current study, where 3.3% of respondents had experienced one type of abuse, and another 1.2% had experienced multiple types of abuse. This translates to two thirds of abused respondents in the current study who had experienced one type of abuse, and another one third who had experienced multiple types of abuse. This was similar to the Portuguese study where two thirds of victims experienced a single type of abusive act while one third experienced more than one type of abusive act in the past 12 months, and 2.4% of victims suffered from polyvictimisation, that is, they had experienced multiple types of abuse in the past 12 months (Gil et al., 2014).

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5.3.3 **Specific subtypes of abusive behaviour**

The most common type of abuse, psychological abuse, was reported by elders with the majority of abusive experiences being in respect to having been cursed at or called harsh names, followed by being belittled, ignored or not involved repeatedly, verbally threatened, and even having had loved ones threatened with harm, or being prevented access to their loved ones or a doctor. Psychological abuse appeared to be slightly more frequent among female elderly respondents. This is similar to studies done elsewhere where psychological abuse is the most frequently reported type of abuse, and especially so among female elders (Chokkanathan & Lee, 2006; Puchkov, 2006; Yan & Tang, 2001, 2004).

The majority of elders who reported suffering financial abuse were in relation to having had money, things or property being stolen from them by someone they knew and trusted, which occurred to ten of them. Following this was the lack of contribution towards household expenses such as utility bills, rental, groceries and other necessities, as reported by another ten elders. Five elders reported being forced into giving away money, things or property, and another five said there had been attempts to cheat them but these attempts failed. Three were forced into giving away their property rights, alter their will, sign a cheque, or were prevented access to their own money or things.

In most of the instances of financial abuse, elderly females were the victims rather than males. This could be explained by the practice of ‘adat perpatih’, where womenfolk hold the rights to ancestral property and land. This is a local tradition or custom peculiar to Negeri Sembilan state, known as ‘adat perpatih’, which dictates that property is handed down to daughters rather than sons as society here is a matrilineal society, with daughters inheriting ancestral property, and son-in-laws coming to reside with the wife’s family after marriage. This ‘adat’ is applicable to Bumiputera Malays, and as

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they comprise the majority of the population here, may explain the predominance of financial abuse among elderly females (Kassim, 1988).

Neglect, which was seen most often in relation to failure to obtain access to basic amenities such as food, shelter, clean clothing and medicine, was reported by both female and male respondents. The occurrence of neglect could perhaps be explained by the increasing urbanisation and industrialisation that occurred in the 1980s with young people flocking to the cities to earn their livelihood (Karim, 1997). This leaves the elders with no adult children as their caregivers.

Physical abuse was mostly reported by female respondents, similar to previous researches (American Public Human Services Association. National Center on Elder Abuse, 1998; Biggs et al., 2009). Similar to evidence elsewhere, sexual abuse was the least common type of elder abuse. Only one occurrence of verbal sexual harassment, was reported. This is similar to Biggs et al. (2009) and was reported by a male respondent.

5.4 Factors associated with elder abuse

This study was constructed based on the adaptation of the WHO ecological framework of violence and its association with EAN. This framework hypothesized that an elderly person's abusive episodes are associated with or occurs at the interplay of factors at multiple levels such as the individual as well as community levels. The findings of this study further strengthen the hypothesis that sociodemographic factors, general health status of the elder, a past history of abuse, and a risk of social isolation are associated with EAN. Those characteristics included being male, those with secondary schooling or higher, below normal mental health, presence of depressive symptoms, having a history of abuse prior to age 60 and those deemed at risk of social isolation.

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Males were predisposed to almost double the odds of abuse compared to females, which may be explained by the Negeri Sembilan 'adat perpatih', which places importance on the female in this matriarchal community (Kassim, 1988). This could explain the greater likelihood of abuse in males rather than females, as females are perhaps respected and protected. However this does not render females immune to abuse, as seen by the frequency of female elderly respondents reporting abuse as well. Some previous research has shown that male elders are as, if not more, likely to suffer abuse than female elders, due to various reasons. These include the failure by elder males to acknowledge and report abuse, embarrassment to have been abused, gender-role socialisation and assumption that elder abuse is more likely to occur among females, ingrained failure to seek help attitude thus failing to utilise existing health and welfare services, less community resources geared towards men such as halfway homes or shelters that accept males, the belief of previous deeds being 'paid back' or sustained in retribution (Kosberg, 2014; Pillemer & Finkelhor, 1988).

Neglect was experienced by 1.6% of males in this study as compared to 0.8% of females. Reasons for the gender difference is unknown. This is possibly explained by female elders having more value to the family as they age, by virtue of contributing more towards housekeeping, cooking and child-rearing, thereby leading to male elders being more susceptible to neglect. The other item showing a larger proclivity towards males was in financial abuse, where the question on having money or things stolen in the past 12 months was answered by 9 elderly males as compared to only one elderly female. This correlates with the distribution of income among elderly respondents, showing more females to be living in poverty, especially hard-core poverty compared to males, suggesting that males have more access to money or things and thereby making them more vulnerable or susceptible to financial abuse.

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Elders with secondary level schooling or higher were found associated with double the odds of abuse compared to those with no formal schooling or primary level schooling. This is in contrast to most studies, for example in Turkey where those with primary or lower levels of schooling were associated with higher odds of elder abuse (Kissal & Beser, 2011) or even in South Korea where those with no formal schooling were predisposed to abuse compared to those elders who had attended school (Oh et al., 2006). However these findings may be explained in that generally those with lower levels of schooling are thought to lack awareness on their rights, or how to go about reporting any abuse. This was a finding mentioned in the USA that those more educated may perhaps be more likely to acknowledge any abuse (DeLiema et al., 2012). This too may explain the current scenario, where more educated elders were found to have higher odds of abuse.

Overall abuse was associated with below normal mental health, with four times the odds of abuse among elders with poorer mental health. This finding was similar with previous research (Cooper et al., 2006; Naughton et al., 2012; Shugarman et al., 2003). Elders with poorer mental health status were associated with higher odds of abuse in previous researches, between 2.5 to 4.5 times more, as they are more easily taken advantage of (Cooper et al., 2006; Naughton et al., 2012; Shugarman et al., 2003).

Depression predisposed elders to overall abuse by almost twelve times more in this study. These findings are supported by the various researches that associate depression with elder abuse (Buri et al., 2006; Cooper et al., 2006; Dong et al., 2010; Garre-Olmo et al., 2009; Kivelä et al., 1992; Wu et al., 2012; Yan & Tang, 2001). Whether depression is a causative factor or the effects of the abuse remains to be seen as this is out of the scope of this study. The design of this study could not establish the direction of this association. However, depression was found to be strongly associated with overall abuse in this study. Depression had the highest aOR of 11.78 (95% CI 4.08,

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34.06) with 69 elderly respondents or 3.3% of the 1,927 respondents scoring positive for suspected depression. Among the 84 abused elderly respondents, 69 of them or 85.7% screened positive for depressive symptoms.

A prior history of abuse was found associated with elder abuse among the respondents of this study. This finding has been reported by other research as well, where it has been postulated that elder abuse is merely domestic abuse that has occurred before at a younger age which is now continuing at an older age (DeLiema et al., 2012; Lin & Giles, 2013). It may also be explained by the same stressors being present in the elderly person's environment or family, or that the abusive act is being perpetrated in a cyclical pattern (Acierno et al., 2010; Canadian Task Force, 1994). The cyclical pattern may also be explained by the social exchange theory or transgenerational theory, whereby those abused persons view violent behaviour as acceptable, and thus perpetrate it themselves later (Abolfathi Momtaz et al., 2013; Aravanis et al., 1993).

Poor social support from family and friends, causing elders to be at risk for social isolation, predisposed the elder respondent to two times as much overall abuse compared to elders not at risk of social isolation. When asked in the context of the instrument used, the social support measure covers both family and friends, so even those who live alone or do not have relatives do not necessarily become isolated socially. Being active in a social network, engaging with others in the community, and knowing there is someone that the elder person may depend on, all help to improve social networks and engagement within the community (Ibrahim et al., 2013).

Increased social support has been shown to reduce the risk of depression in elders (Dong & Simon, 2010). In this study, depression was found to be associated with twelve times increased odds of elder abuse. Better social support has also been quantified by researchers who showed that elders who had someone to listen to and talk to them,

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elders who had someone to advise them, elders who had someone to show love and affection to, elders who had someone help them with daily chores, elders who had contact with someone that they could trust and confide in, and elders who could count on someone for emotional support were all shown to be less prone for elder abuse by as much as six percent (Dong & Simon, 2008).

Elders at risk of social isolation were found to have higher odds of abuse by as much as two and a half times. One fifth of respondents were found to be at risk of social isolation in this study. Previous research in Malaysia has shown that elders with better social support are those who kept active socially and were well connected by virtue of participating in religious and political activities or the local neighbourhood watch (Selvaratnam & Tin, 2007). Social isolation and poor social support sometimes occurs even in those living amongst others.

Examining all these factors in relation to the ecological framework put forward, it can be said that elder abuse is associated with the dynamic interaction between the individual, community and societal levels. Other factors are examined in the following section.

5.5 Other characteristics of respondents

5.5.1 Physical health measurements

In the univariate analysis adjusting for various sociodemographic factors, neither handgrip strength nor walking speed was found associated with the outcome of elder abuse. This was in contrast to a study which showed that impaired physical function was significantly associated with elder abuse (Dong et al., 2012). There, physical

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function was assessed using a battery of physical function measurements. This differing methodology could possibly explain the difference in findings.

Poorer handgrip strength and walking speeds have also been more commonly associated with disability, functional limitation and functional dependence than with elder abuse. This is in line with the Nagi theoretical pathway from disease to disability (Guralnik & Ferrucci, 2003). Various studies associating disability or dependence with elder abuse in turn have been done, where poor physical health and functional impairment have been shown to be associated with higher odds of elder abuse (Campion et al., 2015). The measurement of walking speed and handgrip strength perhaps could have been augmented with other measures of frailty, giving it a multidimensional means of measurement.

5.5.2 **General health status of the elder**

General health status, asked by the SF12*v*2 instrument, consisted of both physical and mental composite scores, to reflect physical health and mental health status of the elderly respondent in the past one week. The physical health status of elders however, in this study, was not significantly associated with elder abuse. This is unlike previous research where due to the method of evaluation was self-rated physical health (Beach et al., 2005; Chompunud et al., 2010; Kivelä et al., 1992) or telephone administered interview (Acierno et al., 2010; Pillemer & Finkelhor, 1988).

Going up a flight of stairs is also part of the assessment of functional limitation that has been adapted in this survey to reflect disability which is further down the spectrum from functional limitation. This was a simple means of assessing disability, and more sophisticated measures might have yielded different results, as this variable was not found to be associated with elder abuse. It has been shown that disability is associated

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with signs of abuse that corroborate self-reporting of abuse by the elderly person (Cohen et al., 2007).

History of chronic disease was a self-reported measure, where any one parameter of hypertension, cardiovascular disease, stroke, arthritis or joint pain, Parkinson's disease, diabetes mellitus, respiratory problems, cancer, or hypercholesterolemia if reported as the elder to have been told by a doctor or health worker, was taken as yes for presence of chronic disease. This is in line with the rising burden of non-communicable diseases in Malaysia and its impact on health (Non-Communicable Disease Section. Ministry of Health Malaysia, 2010), with this study showing 79.3% of elderly respondents having some form of chronic disease. However this was not found to be associated with elder abuse, contrary to findings which show psychological abuse and overall abuse to be more prevalent among elders with chronic disease (Dong & Simon, 2010; Wang, 2005a; Wu et al., 2012; Yan & Tang, 2004) (Dong & Simon, 2010b; Wang, 2005; Wu et al., 2012; Yan & Tang, 2004). Some of the reasons cited with those studies were the possibility that caregivers feel stressed or burdened when having to care for elders with increasing medical needs, in line with the situational theory and possibly the social exchange theory too (Abolfathi Momtaz et al., 2013; Aravanis et al., 1993; Schiamberg & Gans, 2000). Despite the large percentage of Malaysian rural elders with chronic disease found in this study, perhaps this was offset by the access and outreach of government primary health care services even in rural areas such as Kuala Pilah, with eight health centres and 21 community health clinics serving a population of 74,700 (Department of Statistics Malaysia, 2010b). Under the Malaysian health care system, these facilities are generally dispersed within a 9.7 km radius of the population (Hazrin et al., 2013).

Cognition has been shown to be associated with elder abuse, where lower levels of cognition are associated with higher odds of abuse. Most studies had excluded those

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with the poorest levels of cognition first before proceeding with further analysis (Chokkanathan & Lee, 2006; Garre-Olmo et al., 2009). Similarly, those with probable cognitive impairment were excluded from the analysis in this study, leaving only two categories, borderline cognitive impairment and normal cognition among elders. The ECAQ tool used has been used in various studies in developing countries and has been validated in Bahasa Melayu before (Kua & Ko, 1992; Sherina et al., 2005). Similar to the study in India which used the ECAQ tool, this study did not find a significant association between those with cognitive impairment and elder abuse (Chokkanathan & Lee, 2006). The lack of association should however, be interpreted with caution as the screening process inevitably excluded elders who might be severely cognitively impaired, thus indirectly underestimating the actual association between cognitive function and elder abuse. However the main purpose in using the tool as a screening tool to exclude those with probably cognitive impairment is justified, taking into account that reliable, valid responses were needed from respondents. This excluded 188 persons (10.0%) of the population under study from further analysis, with another 11.6% showing borderline impairment and the majority, 78.7% with normal cognitive levels.

The DASS 21 instrument was used to screen for depressive symptoms, anxiety and stress. Depression has been known to be a strong correlate of abuse, and has been discussed in section 5.4. A small percentage of elders were found to be suffering from stress and anxiety, at 3.9% and 1.9% each of the 2,118 elders interviewed. Previous research has shown a less robust association between anxiety and stress with abuse, with only one study finding anxiety being more frequent among those abused, but not found associated with it (Shugarman et al., 2003). Stress, when mentioned, has been found in relation to caregivers, or as a consequence of elder psychological abuse, in detailed studies looking at the effects of psychological abuse on elders (Wang, 2005a).

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In this study, stress and anxiety in the elder respondent were not found significantly associated with elder abuse.

5.5.3 **Sociodemographic factors**

Age and ethnicity did not appear to be associated with the outcome of elder abuse, neither was there a significant difference between various age groups, or ethnicities among those elders who were abused. This could be explained by the large number of young-old in the study compared to older age groups, and a large number of Bumiputera Malays, compared to Chinese and Indians, even after adjusting for age and ethnicity in the analysis. Previous research done elsewhere has generally found that the oldest-old are more susceptible to abuse by virtue of being more dependent on their caregivers and having more health needs (Buri et al., 2006; Gil et al., 2014; Yan & Tang, 2004). As this was the first such community based study on elder abuse in Malaysia, there is no comparison to other studies in terms of ethnicity. However, studies from other countries such as the USA which has minority populations of differing ethnicities have noted that elders of minority racial status are more likely to be abused (Acierno et al., 2010; Dong et al., 2010; Lachs et al., 1998).

In terms of living arrangements, the majority of elderly respondents were staying with others. However, cohabitation was not associated with elder abuse, unlike previous research which found that shared living arrangements led to increased opportunities for conflict on a daily basis between elders and caregivers, leading to abuse (Chokkanathan & Lee, 2006; Jordanova, Markovik, Sethi, & Serafimovska, 2014; Kissal & Beser, 2011; Oh et al., 2006).

Marital status of elders was not found associated with the outcome of elder abuse in this study. Other research has shown mixed findings, where elders who are widowed,

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divorced, single or separated are more likely to be abused (Iecovich et al., 2004; Wu et al., 2012), in contrast to previous research which found that these elders were less likely to be abused by virtue of not sharing their living quarters (Pillemer & Finkelhor, 1988).

Poverty was not a factor found associated with elder abuse in this study, unlike previous research which found it to lead to increased likelihood of abuse in light of the burden placed on the family due to increased financial dependency of the elder (Buri et al., 2006; Chokkanathan & Lee, 2006; Dong et al., 2010; Wang, 2005a; Wu et al., 2012). Those elders in current employment were not found to be at increased risk of abuse. Previous research on this has been limited, where two studies had found it to be associated with higher odds of elder abuse (Acierno et al., 2010; Wu et al., 2012).

5.6 Reporting of abuse

The 84 elderly respondents who reported being abused in the past 12 months were asked firstly if they had told anyone of the abuse. A third were silent about it while almost half admitted that they had actually told another person about it, who was usually another family member. Family members were seen as the pillars of support, with abused elders confiding in them, and family members helping to take various actions on behalf of the elder.

Of note is the lack of disclosure of abuse towards health care and social workers, who may actually be the ones who frequently come into contact with elderly persons. Under detection and underreporting of elder abuse is a finding common to previous research (Cooper, Selwood, & Livingston, 2009; Johannesen & LoGiudice, 2013b). Doctors and nurses are in an opportunistic position to detect elder abuse by virtue of the nature of their job and patient confidentiality. Lack of disclosure of abuse towards these personnel may reflect a lack of awareness on elder abuse among health care providers, a

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low level of suspicion of elder abuse on the part of health care providers, or that they lack training to detect elder abuse (Cooper et al., 2009). In the USA, most health care providers under detect elder abuse, with only a third detecting elder abuse cases with half of these actually being reported (Cooper et al., 2009).

The three elders who mentioned informing their treating doctor about the abuse they had experienced occurred after they were physically abused and had to seek treatment. This finding correlates with previous research which found that most health care professionals did not know that most cases of elder abuse do not involve major injury (Cooper et al., 2009). Of the three elders who reported physical abuse to a doctor in this study, one of them reported the co-occurrence of both physical and psychological abuse; another, financial abuse and the last, both psychological and financial abuse besides physical abuse.

Findings on disclosure or reporting of abuse were similar to findings from Ireland, where 34% of abused elders had kept silent about the abuse, while 41% had confided in another family member, and 20% had informed their general practitioner or even the police (Naughton et al., 2012). In Israel, only about one in twenty or 5.9% of abused elders actually disclosed abuse when compared to 21.4% who were identified as having signs of being abused and a further 32.4% deemed at high risk of abuse, showing the difficulty that elders may experience in talking about any abusive acts suffered. Those who did report abuse usually suffered from physical or sexual abuse at the hands of family members, usually a partner, adult child, or the adult children's spouses (Cohen et al., 2007). In Korea and India, 36% and 55% of elders respectively did not report abuse, usually citing family honour, shame, victim blaming attitudes and a high tolerance for abuse (Yan, Chan, & Tiwari, 2015).

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The high numbers of elderly respondents who did not disclose of this abuse to anyone in this study (28 elders) may possibly be explained in light of previous research which states that for elderly persons, preserving family cohesiveness is of greater priority compared to individual rights. Hence the elderly respondent may be unwilling to share what happens in the family with another person, preferring to suffer silently rather than break the solidarity of the family so as not to expose such private matters and avoid shaming the family (Gil et al., 2014; Lin & Giles, 2013; Schiamberg & Gans, 2000; Yan, Tang, & Yeung, 2002). Another reason is self-protection, whereby recounting the harrowing abuse may result in the elderly respondent having emotional or psychological repercussions (Lin & Giles, 2013). This concern for themselves may extend towards the abusive children too (Schiamberg & Gans, 2000). Pride may also be a factor, with abused elderly not wanting to admit that they have been abused, while social stigma is another reason, where abuse is perceived to be taboo and hence elders may be hesitant to talk about it with anyone else (Lin & Giles, 2013). Sometimes elders may deny the abusive situation for other reasons such as fearing the worsening of the abusive situation, dependence of the elderly person on the perpetrator, or even deep seated feelings of love towards the abusive person (Schiamberg & Gans, 2000).

Previous research also shows that abused elderly find it difficult to disclose of being abused to another person, and if they do, it depends largely on the quality of relationship they share with the person to whom they disclose of this to (Jackson & Hafemeister, 2015). Closer relationships between the abused elder and perpetrator tend to cause delays in disclosing of the abuse and reporting to the authorities (Jackson & Hafemeister, 2015). In Portugal, only a third of abused elders did inform someone else in order to seek help (Gil et al., 2014).

Upon disclosing of the abuse, most elders (38, 61.3%) had some form of action taken, either by themselves or by another person on behalf of the elder. However, this was

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effective in only half the cases, with the other half experiencing continued abuse. Getting another person such as a doctor, social worker or police personnel to intervene was done by 30.7% of abused elders, similar to previous research which showed that a third person, typically another family member, a professional, or an adult protective services personnel, intervened in many cases of elder abuse (Jackson & Hafemeister, 2015).

Findings in this study suggest that physical abuse resulting in severe forms of injury were unusual. Despite the small numbers of elders reporting physical abuse, health care workers should be trained to differentiate between injuries due to elder abuse and injuries faced by elders common to the ageing process (Kissal & Beser, 2011; Phua, Ng, & Seow, 2008; World Health Organization/ International Network for the Prevention of Elder Abuse, 2002).

A qualitative approach would enable further exploration into how and to whom elders chose to disclose of abuse, or rather, not disclose of abuse. This would help address why a large proportion of elders refused to answer the part on disclosing of abusive acts, whether any action was taken and if it was successful in alleviating the problem of abuse. This was out of the scope of this study.

5.7 Perpetrator characteristics

Adults, ranging in age from 26 to 59 years make up the bulk of the perpetrators, at 58.9% of the 56 abused elders. Elders themselves make up almost a third of perpetrators of abuse towards other elderly respondents. Even youths aged 18 to 25 years make up a good tenth of perpetrators of abuse towards elderly respondents. Two thirds of perpetrators of abuse towards elders were married, followed by those who were single, and a few that were separated, divorced or widowed. Two thirds of the time, the

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perpetrator and the victim were not living together either at the time of the abuse or currently.

Most of the time, however, the abuse took place at the elderly respondents house itself, showing that home may not be the safest place of all. Almost half the perpetrators were working, and among those not working, one was actually a student. Mostly the perpetrators were relatives of the elder person, or an adult child. Very few were spouses. This is in line with the social exchange theory which explains elder abuse with respect to family caregiving, which is considered to be a generational event. The elderly person or parent, expects the adult children to 'pay off' the care and help that they had provided towards them when young, when the parents are old and ageing (Schiamberg & Gans, 2000).

Other perpetrators were friends, neighbours, or other persons not related, but known to them. One abusive experience was allegedly by a social worker where the older person claimed the social support payment given to her every month was discontinued after a revaluation while she was admitted to hospital.

Most of the perpetrators were known by the elder over long durations of time, spanning 30 to 60 years, with a quarter of them having known the perpetrator for 10 to 30 years, and another quarter, two to five years. Most perpetrators had received some schooling, either primary or secondary level. Less than ten percent of perpetrators were thought to have physical or mental health problems. Most were not reported to have alcohol or drug related problems, with only ten percent of elders saying the perpetrators had a drug addiction problem. A small percentage of perpetrators, four percent, were known to have prior criminal records. Some of these findings are common to other studies (Biggs et al., 2009; Chokkanathan & Lee, 2006; Gil et al., 2014; Naughton et al., 2012).

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These findings were as reported by most of the abused elderly respondents. Around twenty percent of abused elders refused to answer when asked about the perpetrator of the abusive acts they had experienced. This was possibly due to not wanting to reveal the perpetrators background, as a self-preservation measure where elders possible feared for their own safety in case of retaliation by the perpetrator, an escalation of the abuse or emotional repercussions, or merely protecting their own family members especially if the elderly person was dependent on them. Other reasons that elders possibly not feeling comfortable answering on perpetrators is likely due to them wanting to preserve the cohesiveness of the family over their individual feelings and rights, and not break the solidarity of the family by admitting to abuse and exposing such private family matters. Elder may also not want to answer as it is a matter of pride, and they do not want to admit that such a person has been abusing them, especially so if it is a family member, which was the case in 64% of abused elders. Abuse is still a fairly taboo topic and thus social stigma may lead to the elder being hesitant to talk about it. The elder may also be reluctant to identify and talk about the perpetrator as they have deep seated feelings of love towards the family member perpetrating the abuse. Close relationship with the perpetrator make it difficult for the elder to talk about it. (Gil et al., 2014; Jackson & Hafemeister, 2015; Yan et al., 2015).

In this study, most of the elders who refused to answer about the perpetrator of abuse were generally males from the younger age group of 60 to 60 years, largely Malays, cohabiting with others. This could possible reflect on males being more hesitant than females to disclose about perpetrators of abuse due to underlying traditional masculine attributes expected of them, to be in control of themselves and their environment (Tong, Khoo, Low, Ng, Wong &Yusoff et al, 2014). Hence they may have been less likely to disclose about perpetration of abuse and the perpetrators themselves. The abused elders who did not answer about perpetrators were found to be related to the perpetrator, with

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6% being the spouse, 22% from adult children, and 36% from other relatives; thus 64% were family members as opposed to 36% non-relatives made up of neighbours, friends and other persons.

5.8 Strengths of the study

Together with the large sample size of this study, good response rate, sampling method and the robust method of data collection involving a combination of highly personalised contact via face-to-face interview, in private assessment by trained interviewers at the elder respondents own home, the findings from this study would suggest that the prevalence, factors associated and other characteristics obtained are as accurate an estimate as possible in this population.

The detailed questionnaire ensured that no aspects were left unexplored to the best of the ability of this research, with respondents being asked questions with a range of answers being read out to be selected from. Completed questionnaires were double checked by team leaders, while quality control checks were done via telephone monitoring where possible by other staff, to ensure that interviewers had indeed gone to interview the elder person, as well as about the content asked.

Any respondent found having difficulties in terms of distress due to abuse, financial hardship, or needing medical attention, was referred to the district health office for further action. This was usually counselling by the health care staff, monitoring of health conditions, treatment at the nearest health clinic, or even referral to the social welfare authorities.

This was the first study utilising a face-to-face interview approaching community dwelling elders to obtain the prevalence of and factors associated with elder abuse, and

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would therefore serve as a baseline study for others to base their findings upon, within the local Malaysian context. It was a major step forward for EAN research in Malaysia and serves as an impetus for future studies on this topic.

5.9 Limitations of the study

The possibility of underreporting exists, in that the survey might not have included the frailest and most vulnerable population who might be at higher risk of abuse than other elders, due to the inclusion criteria being that the elder respondents had to be able to communicate by themselves without a third person's assistance. This selection bias would also extend to the almost ten percent of respondents with severe cognitive impairment who were dropped from the analysis, as it is possible that these elderly respondents may have been more susceptible to abuse. Those elders who participated in the survey might not have felt totally free to talk about their experience of abuse if there were other household members present in the house at the time of the interview, despite the best efforts of the interviewer. Also, the possibility exists that abused elders may not have felt comfortable sharing details of their abuse with the interviewer in the first place. All responses were dependent on the accuracy and truth of the answers, which was in turn self-reported by the elderly person. As such, answers to sensitive questions could not be verified by another person or source. The characteristics of non-responders, among them those who were not available and those who refused to participate, while generally similar, do not exclude the possibility that they were victims of abuse. Besides underreporting, recall bias is another limitation encountered as the outcome is dependent on self-reporting by the participant. As such, the prevalence of elder abuse could actually be higher than reported.

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Another form of bias was the possibility of confounding bias. While various sociodemographic factors were controlled for in the multivariate logistic regression model, other residual factors not included in the study could have affected the results obtained.

As the participants were mainly Malay, the results would probably reflect better towards Malays. There is a possibility the data is skewed, however data was insufficient in terms of other ethnicities. Testing for differences in the three major ethnic groups is therefore not likely to show differences. Despite controlling for ethnicity, it was not found to be associated with the outcome of elder abuse in this study.

Although factors associated with abuse may exist at different levels as seen in the conceptual framework in section 2.3, mostly characteristics associated with the elderly respondent at the individual level were able to be studied directly. Others were inferred from the elder, with no interviews of the caregiver being done as it was out of the scope of this survey. The only community and societal level factors included in this study were living arrangements of the elderly and social support, as measured by a risk of social isolation.

Another limitation when screening for elder abuse in this survey was the lack of external verification, as the results here could not be corroborated with a gold standard for elder abuse as none exists to date. This would be an inherent feature in all studies on elder abuse. Besides that, by virtue of the study design, being a cross-sectional study, no cause-and-effect may be inferred from the outcome of elder abuse and the various factors associated with it. Only an association between the two could be made.

Multivariate logistic regression analysis was used to draw an association between elder abuse and the various factors previously found to be associated in other studies. However, among the subtypes of abuse, neglect, physical and sexual abuse had very

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small sample size for the analysis to be run. Further studies with a larger sample size may be able to address this issue.

In this survey, history of prior abuse was asked directly after posing all the abusive experiences questions towards the elder. They were then asked, using a single item, "Have you ever experienced any of the abuse or neglect we discussed earlier before the age of 60?" This therefore referred to any experience of abuse encountered. However, this is subject to the respondent's interpretation and has limitations as it cannot differentiate the subtype of abuse previously experienced.

The section on perpetrator characteristics was actually reported by the elder and not using a dyadic approach where both elderly respondent and perpetrator would ideally be asked separately about the occurrences being reported. This was out of the scope of this study. Elders were asked about the abusive experience, with structured questions asking about the perpetrator in two major occurrences of abuse experienced. Therefore this section was self-reported by the elder and was not corroborated with the caregiver or abuser of the elderly respondent and should be interpreted with caution. Besides this reporting in the third person by the elderly respondent, up to half of elderly respondents refused to answer on the perpetrator, thereby limiting further information available on the perpetrator.

Another limitation may be in that interviewers were trained to administer the questionnaire using the Bahasa Melayu or English versions of the questionnaire. However, some respondents required the questionnaire to be administered in their native tongues of Mandarin or Tamil, the languages predominantly spoken by ethnic Chinese and ethnic Indians respectively, as they were ill-versed in Bahasa Melayu or English. Interviewers who were able to speak these languages were given a glossary of key terms for the interview purposes to complement the questionnaire available in

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Bahasa Melayu or English as no fully translated questionnaire in Mandarin or Tamil was available. This approach is similar to Malaysia's National Health and Morbidity Survey (Institute for Public Health. National Institutes of Health. Ministry of Health Malaysia, 2015).

5.10 Public health implications of elder abuse and neglect

This empirical research in identifying prevalence of, associated risk factors, reporting of elder abuse and perpetrator characteristics helps to fill the gap in knowledge about the extent of the problem of EAN. It is hoped to help stimulate and formulate action research in developing intergenerational programs, interventions and related policy for vulnerable elders. It provides necessary information on which prevention programmes may be built upon, besides information to help provide services for abused elders, and develop as well as enforce laws related to elders and abuse.

The implications of these study findings are viewed from the three levels of prevention: primary, secondary and tertiary prevention (Choo, Hairi, Othman, Francis, & Baker, 2013; Schiamberg & Gans, 2000). Primary prevention refers to preventing the abuse of elders. This is possible only when elder abuse has been defined and recognised, so that screening of EAN may be done. In this study, the instrument used for screening was adapted from the National Prevalence Survey of Elder Abuse and Neglect in Ireland (Naughton et al., 2012). It is similar to the revised Conflict Tactics Scale which is able to measure physical, sexual and psychological abuse (Straus et al., 1996). The Irish prevalence survey instrument, based upon research in the UK and USA, included the measurement of all types of abuse, namely physical, sexual, psychological, financial abuse and neglect. Other screening tools in existence that have the ability to detect various subtypes of elder abuse, or raise the suspicion of such abuse, include the Elder

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Abuse Suspicion Index (EASI) (Yaffe et al., 2008), Indicators of Abuse Screen (IOA), Brief Abuse Screen for the Elderly, Hwalek-Sengstock Elder Abuse Screening Test, Elder Assessment Instrument (Fulmer, Guadagno, Dyer, & Connolly, 2004).

Further to this, once the problem of EAN has been detected and measured, preventive strategies aimed at stopping this from occurring would include strengthening relationships of the elder with family and community, educating all members of the community regarding elder abuse and the risk factors associated with it, and the importance of social support towards elders. In screening for elder abuse, health care workers should therefore look out for those who are males, exhibiting signs of depression, having poorer mental health status, secondary or higher level education, a prior history of abuse or at risk of social isolation. These should trigger the frontline workers to look for and ask specifically about abuse.

With increasing modernisation, urbanisation and nuclear families taking over extended families, this leaves a larger proportion of elders fending for themselves in rural areas. Social isolation and poorer social support should be addressed as part of primary prevention strategies. Essentially Negeri Sembilan state is among the top three states that loses people to migration elsewhere, leaving more elderly as part of its rural populace. This would likely be true for other parts of rural Malaysia where a similar demographic pattern is seen.

Secondary prevention aims at early detection of this problem among high risk groups, and may be done effectively in the community as well as health care setting, as this is the context in which some of the factors associated with elder abuse are found. Secondary prevention can only be done when the risk factors associated with EAN have been identified, as how it has been done in this study. This study found that health care providers and social workers were less likely to detect EAN, which is precisely why

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education and training, including but not limited to awareness on and detection of elder abuse is important to be nurtured among these personnel. Secondary prevention includes education and training in intervention especially that of health care personnel, both professionals and paramedics, on the identification, treatment, management and prevention of EAN. The intergenerational relationship between the abused elder and the perpetrator, which has been shown to be more often than not an adult child in this study, needs to be recognised. Teaching caregiving skills to caregivers of elderly, therefore, is important to alleviate the burden of caregivers and maintain an appropriate interaction with elders. Various guidelines are in place that have been developed to address this need (Family Health Development Division. Ministry of Health Malaysia, July 2008; Institute for Public Health. National Institutes of Health. Ministry of Health Malaysia, 2011b).

Tertiary level preventive strategies involve developing long-term strategies for abused elders. The authorities would need to put guidelines or policies in place, which are specifically directed towards elders and abuse. This includes treatment or rehabilitation of elders in abusive situations. Adult protective services (APS) such as that in the USA would be an example, where elders in abusive situations are subject to risk alleviation through psychosocial measures including counselling, support groups, caregiver services to legal action such as orders of protection, eviction of the perpetrator, guardianship of the elder, or even removal of the elder into a safe shelter (Anthony, Lehning, Austin, & Peck, 2009; Burnes, Rizzo, & Courtney, 2014). This could lead to a reduction or cessation of abuse.

At the country level, the National Policy for the Elderly and the Domestic Violence Act do mention various plans outlined for the elderly. Building upon these, Malaysia would need the legal system to enable abused elders to be removed from the abusive situation and placed elsewhere, if so warranted. This is at the extreme end of the spectrum, with

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less severe options being rehabilitating the victim of abuse in the surroundings itself, through various psychosocial measures mentioned above. Punitive measures for the perpetrator could also be instituted, although some researchers have cautioned that a criminalization of elder abuse perpetrators along with a lack of long-term solutions could lead to professionals being reluctant to report elder abuse (Schiamberg & Gans, 2000).

Malaysian policies for older persons could be strengthened to include elder abuse as a separate category, rather than depending on the inclusion of elders in a very general manner in the current policies. The existing Domestic Violence Act 1984, amended in 2012 includes elders under the category of 'incapacitated adult', being 'a person who is wholly or partially incapacitated or infirm, by reason of permanent or temporary physical or mental disability or ill-health or old age, who is living as a member of the family of the person alleged to have committed the domestic violence, and includes any person who was confined or detained by the person alleged to have committed the domestic violence', or as ;any other relative'. This act also has to be read together with the Penal Code, and does not stand alone (Attorney Generals Chambers Malaysia, 2012). This act covers physical, sexual and now psychological abuse. It should include financial abuse and neglect of elders as well.

The National Policy for Older Persons should therefore clearly mention elder abuse as one of the social ills that should be addressed. With that, its plan of action could be strengthened to involve the various stakeholders from public and private institutions to commit towards eradicating this ill from our society.

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5.11 Summary

The use of different tools to produce prevalence estimates makes a direct comparison of this study prevalence with other populations difficult. This study revealed a prevalence of 4.5% of elder abuse among rural community dwelling elders. This utilised the instrument used to screen for elder abuse via self-reporting from elder respondents in various national level surveys in Ireland, UK and a larger community based study of the New York area in the USA. The prevalence of 4.5% was within the range of 1.1% to 44.6% as found in the systematic review conducted on the prevalence and measurement of elder abuse within the community (Sooryanarayana et al., 2013). It also corresponded to a previous review where prevalence ranged between 3.2% to 27.5% (Cooper, Selwood, & Livingston, 2008) as well as a recent review of elder abuse in Asia which found elder abuse prevalence to vary between 0.015% in Singapore to 36.2% in China (Yan et al., 2015). A recent global study on violence had identified one in 17 older adults as having reported abuse in the past one month (World Health Organization, 2014b).

However, the pattern seen in most studies examining various subtypes of elder abuse shows that the Malaysian pattern was not unique. Psychological abuse predominates, followed by financial abuse, neglect, physical abuse and sexual abuse as compared to other studies. Factors associated with elder abuse in this context are largely modifiable or preventable, with the common factors of increased risk of social isolation, poor mental health, and depressive symptoms found significant in the multivariate logistic regression analysis. Other significant factors include being male, having secondary school level education or higher, and a prior history of abuse. Those factors which are modifiable are amenable to interventions at various levels, from the individual, community and professional services available to the elder.

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Looking out for one another and the neighbourly spirit should be fostered and encouraged within communities. This is something that is slowly being lost in both urban and rural communities. Increasing social participation and social activities through neighbourhood events, get-togethers such as 'gotong-royong' or communal clean-up activities, besides religious activities, book clubs, group exercise like line dancing or 'tai chi' sessions, and neighbourhood watches could be key to getting the community to participate in shared ventures. Specifically for elders, this could mean people volunteering to check in on them, help them buy groceries, or get handymen to help repair minor things around the house. Elders should be encouraged to utilise their friendly community clinic services such as the Senior Citizens Club.

Methods such as debriefing techniques commonly utilised in qualitative studies could be applied in quantitative surveys dealing with sensitive topics. This benefits the interviewers directly, contributing to better results and outcome from the study, as well as the respondents indirectly by virtue of having sensitized interviewers who are less burdened psychologically with the task they are performing. Better quality survey data would aid researchers and those who benefit from the research findings.

Disclosure of abuse is found to be a significant barrier to elders who experienced abuse. It is interesting to note that elder abuse being disclosed to health care providers and welfare officers was very low in this study. This possibly shows that elders did not have implicit trust in health care providers, or that the health care providers had a low level of suspicion for elder abuse and were not trained to detect elder abuse in the first place.

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CHAPTER 6 : CONCLUSION AND RECOMMENDATION

6.1 About this chapter

To the best of my knowledge, this is the first study conducted in Malaysia to identify the gap in knowledge on elder abuse locally with actual prevalence of elder abuse and factors associated in the local context. It identifies the existence of this problem in the rural Malaysian community; factors associated with EAN, elders responses to EAN, disclosure of abuse, and perpetrator characteristics. Most of the findings are in line with findings from international research on elder abuse. The instrument used was robust to detect elder abuse locally and place it on a similar platform as research findings done elsewhere.

6.2 Elder abuse and factors associated with elder abuse

Social isolation, poorer mental health of elders and depressive symptomatology are factors associated with elder abuse in this study. These being modifiable risk factors, are in a good position to be influenced via strong society, community, and familial support towards the elder person.

A study in Taiwan linked better social support to higher cognitive levels of older persons. This would mean elders would embrace ageing in a healthy and successful manner, which is the target of active ageing (Yeh & Liu, 2003). Indirectly this would mean a lesser prevalence of elder abuse, perhaps by imparting the older person with the resilence to deal with various situations. This was supported by a local study, showing that social support cannot be denied as being related to a better quality of life, as evidenced by better physical and mental health (Ibrahim et al., 2013).

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6.3 Recommendations and public health significance

In Malaysia, public health nurses and community based nurses are in frequent contact with the community covered by their respective community health centres. Home nursing, or domiciliary nursing, forms an important part of their services. These services, while largely focusing on maternal and child health, should also incorporate elder health and their well-being. Services such as screening for elder abuse or at the very least, referring those with suspicions of abuse to the family medicine specialists at the nearest government health clinics should be included. Efforts to build trust of the community with health care workers, training health care workers on detection of elder abuse, and increasing their levels of suspicion of abuse should be instituted too.

The New Blue Ocean Strategy (NBOS) was launched by the government in 2009, and adopted by the Ministry of Health through the NBOS: 1 Malaysia Family Care in 2012 targeting single mothers, people with disabilities and senior citizens with the aim of providing holistic care for these vulnerable groups (Family Health Development Division. Ministry of Heath Malaysia, 2012). However its efforts towards senior citizens are limited, only targeting medical check-ups for institutionalised elders, with minimal involvement of community dwelling elders who form the bulk of the senior citizens.

To give credit to the Ministry of Health, domiciliary care is being done, with health personnel visiting community dwelling elders with the aim of empowering them to be independent in terms of their health care. This care is targeted towards those elders who are discharged from hospital and are referred to community health centres for further care. Health care providers from community health clinics then visit the elder and their caregiver for the first three months after discharge. This is done to ensure that the elder or caregiver is independent to care for the elder person's needs. However, bearing in mind that perhaps half the senior citizens do not utilise the facilities at the government

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health clinics, the majority of the elderly population is not being addressed (Institute for Public Health. National Institutes of Health. Ministry of Health Malaysia, 2012; Madans, Loeb, & Altman, 2011). Perhaps this could be strengthened with further cooperation of health care providers and the Village Safety and Development Committee members. The maternal and child health services have been lauded for their excellent surveillance at the community level; these same community based nurses could be then harnessed to help provide the same level of care for elderly services (Poi, Forsyth, & Chan, 2004).

It is expected that in future a greater proportion of rural elderly Malays living alone will face health problems because of the lack of sufficient programmes for this age group (Selvaratnam & Tin, 2007). Much like how we train future geriatricians to be prepared to deal with health problems of the elderly, we need to be prepared for the sheer numbers of the elderly and have health related services ready to cater to their needs (Wong & Landefeld, 2011). Similarly, the geriatrics and gerontology field should be encouraged and developed further, along with screening for elder abuse. Prevention and intervention programs should be put into place to protect the elderly, whilst encouraging successful and healthy ageing.

Some of the measures which can be focused on to increase social participation and social engagement, thereby reducing the risk of social isolation, are to get elders to join the Senior Citizens Club or 'Kelab Warga Emas'. These clubs are held in each health centre, which has meetings and activities scheduled for elders once a week at dedicated premises within the health centre. Some of the activities conducted include exercise, cooking demonstrations, group prayer and free time to interact with one another. When one of the regular group members is unable to attend, the other group members make an effort to visit and find out how their fellow group member is faring.

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On a larger scale, government agencies could take note of efforts made by countries such as Thailand and China, which have censuses, demographic and health surveys, as well as ageing surveys specific to older person conducted nationwide (Teerawichitchainan & Knodel, 2015). Malaysia, on the other hand, has the ten yearly national level census. While comprehensive in nature, its focus is not on the elder person, nor is the National Health and Morbidity Survey performed by the MOH. A national survey on elders as the focal client or respondent would greatly aid in finding out details such as social support, social networks available to them, besides other demographic data such as coresidence, income or employment. This opportunity could also be taken to screen for elder abuse, besides factors associated, disclosure of abuse and perpetrator characteristics.

6.3.1 **Reducing elder abuse and risk modification**

Interventions to prevent and reduce elder abuse would impact manifold upon all parties, from the elder persons themselves by sustaining health, reducing costs of service care providers when elders suffer prolonged hospital stays with more frequent medical care visits, to their caregiver productivity by virtue of less days lost spent in caring for the elder.

As elder abuse has been explained using the ecological framework in section 1.12, the same approach will be used to classify and explain further interventions. These broadly fall under the category of primary, secondary and tertiary interventions, depending on whether it is targeting the prevention of the actual primary occurrence of abuse, preventing further abuse, or managing the consequences of abuse, respectively (Choo et al., 2013).

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Primary prevention is focused on the elders or caregivers themselves, involving community based activities or policy changes. Health education and awareness of abuse, conflict resolution and good communication skills are encouraged here. These activities could be directed at the various individuals such as the elders and caregivers, through various health clinics programs and activities. At the community level, intergenerational programmes encouraging networking between elders and youngsters to bridge the generation gap could be done through a school based approach, or other youth groups such as the '*Rakan Muda'* or 'Young Friends' initiative under the Ministry of Youth and Sports, to get youngsters to engage in interacting with elders. Personal level interaction, such as showing elders computer skills, helping with activities of daily living, or vice versa, with the elderly tutoring or sharing their skills such as bookkeeping, knitting, crocheting, quilting, needle work, jewellery making, floral arrangements, painting, playing an instrument, woodworking, fishing, and gardening, with the youngsters, would encourage participation of elders with youth. Other activities such as reading books to children at local libraries or having a story telling club at the community centre would offer elders a chance to show off their storytelling skills, as children would certainly love to hear stories from elders about growing up during the Japanese invasion and the independence era. Besides that, etiquette classes, offering elders a meaningful way to teach youth on how to introduce themselves to and greet people, set a table, or write thank you notes, would be another option to engage with elders. With mass media highlighting these activities, the community awareness will be gradually awakened to appreciate elders and thereby indirectly help address the problem of elder abuse. These suggestions are all within the aims and scope of World Elder Abuse Awareness Day, celebrated on June 15th every year since its inaugural commemoration in 2006 by the INPEA and WHO in support of the United Nations International Plan of Action on Ageing (Merriman-Nai & Stein, 2014).

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Since this was a community based survey, the immediate possibilities identified include screening by community health nurses, and training programs to sensitize nurses and doctors to elder abuse. This should include how to detect, report and manage elder abuse, as there are no guidelines or standard operating procedures on this topic unlike clinical conditions which are more easily assimilated and implemented by health personnel. Screening for elder abuse should be made a part of the community health nursing syllabus, as training these nurses at the beginning to be mindful of this in the early part of their training rather than introduce it as something to be added on to an already vast portfolio and job tasks to be done would make screening easier. From this study conducted, less than half of abused elders disclose of the abuse to another person, with none calling available hotlines for help. Awareness is lacking about elder abuse and its management starting from the elderly persons themselves.

Secondary prevention targeted at high risk elderly would ideally be done by health care professionals. Geriatricians and gerontologists would be best suited to target vulnerable elderly primarily living with their families within the community, and as such, these specialities should be encouraged and developed among the medical fraternity (Poi et al., 2004). Targeted geriatric services such as home visits, physical therapy, mental health services, proper care of chronic diseases, including coordination of care with the local community health centres should be initiated. By improving or restoring elders heath, their health needs and dependency on others would lessen, helping to reduce the odds associated with abuse (Campion et al., 2015).

Tertiary level prevention which focuses on long-term strategies for abused elders may be the most effective, needing formal guidelines on treatment and rehabilitation by the various authorities. These have been described to be the most successful and effective, however, the most resource-intensive too, consisting of multidisciplinary or interprofessional involvement at the grass root level itself within the community so as to

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have an ongoing effort or program (Campion et al., 2015). Health professionals alone would not be able to initiate successful interventions. Their expertise would be needed in screening for elder abuse and identifying it as such, and identifying local resources available within the community itself to help these elders, including the referral of such identified elders to these programs. Such coordinated programs would include social workers like the U.S. based adult protective services to investigate the family circumstances and dynamics to help suggest useful measures that can be implemented (Campion et al., 2015).

Multidisciplinary or interprofessional teams consisting of health workers, social workers, law enforcement authorities, and attorneys, have been shown to best help victims of elder abuse. These are known by different names in different settings, such as the Adult Protective Services (APS) in the USA and Aged Care Assessment Team (ACAT) in Australia (American Public Human Services Association. National Center on Elder Abuse, 1998; Kurrle & Naughtin, 2008). These could be set up to review the case details, formulate a plan of action and execute it, while meeting periodically to see if these actions are successful, and improve upon them as needed on a case-to-case basis. Even if this is not possible, health professionals' referral of identified cases of elder abuse to social and legal authorities may help as a start-up measure. It has been shown that physicians or health care professionals alone can rarely successfully treat and rehabilitate a victim of elder abuse. Interprofessional teams play an enormous role in doing so successfully (Campion et al., 2015). It should be remembered that when dealing with cases of elder abuse, there are actually two victims involved, as both the elder and the perpetrator may be considered victims, viewing the perpetrator as a caregiver in need of help (Kurrle, 2004).

Examples of community based outreach programmes for elder abuse would include frontline service providers who are able to provide abused elders with information,

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various strategies and options to help them, and aid in the decision making process. Besides this role, these personnel would encourage and advise all elders to plan for their future. These providers would also play a role in advising the governmental agencies on the setting up of retirement villages, community based services and crime prevention, among others. An elder abuse prevention unit or EAPU is another service set up in Australia with the aim of preventing and responding to elder abuse. It helps raise awareness on elder abuse by educating and involving various community groups and disseminating resources needed, such as running of a confidential helpline on elder abuse, or trained volunteers to engage with the community who would be able to pick up and report on suspected abused elders in the course of their voluntary activities such as home delivery of groceries or meals (Kurrle & Naughtin, 2008). This is an example that could be emulated.

6.4 Policy and legislation

An Elder Act, much like the Child Act, should be drawn up, so that protection of elders is better ensured rather than depending on the very general Domestic Violence Act in existence. This would need further cooperation of the MOH and the legal fraternity, and would benefit elders greatly. Mandatory reporting of suspected elder abuse by health care providers and social workers could be incorporated here, with the establishment of halfway homes or safe houses which would be a shelter to house those elders facing severely abusive situations greatly endangering their health and well-being. Other countries that have specific legislation in place to protect vulnerable elders include the USA, Canada, South Africa, Japan, and South Korea in the form of the Elder Justice Act at federal level in the USA besides other state level laws, various adult protection and guardianship laws in Canada, the Older Persons Act (South Africa), Elder Abuse Prevention and Caregiver Support Law (Japan), Older Adult Welfare Law (South

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Korea) (National Center for the Protection of Older People, 2011). Although various researches have been conducted in countries such as the UK and Australia, no legal act specific to elders exists in these countries (National Center for the Protection of Older People, 2011).

On the other hand, in an attempt to formulate policies to help elders, of note are responses by elders in Australia who were against mandatory reporting of elder abuse. This was seen as an invasion of privacy, demeaning their decision making capacity, or stereotyping them into an incompetent position (Kurrle & Naughtin, 2008). Other researchers have called for restorative justice, whereby conflict resolution is the key to improving family relationships and thereby reduce the occurrence of elder abuse, rather than employing punitive measures through the law (Podnieks, 2008).

About forty percent of countries worldwide attempted to draw up national action plans for EAN while lacking primary survey data on elder abuse (World Health Organization, 2014b). This survey, being the first on elder abuse in Malaysia, serves an important task in highlighting this issue. Proper legislation and policy guidelines would help nurses and doctors faced with the problem of elder abuse, giving them more authority to deal with the situation and underscore the brevity of the issue. At the same time, individual and community level resilience to deal with these issues should be strengthened, in line with the Asian culture of having elders living independently or with their families, thus empowering the individual, families and communities to live and age healthily rather than looking to the government for aid or setting up of nursing homes.

Certain measures have been employed by our neighbouring country, Singapore, which has implemented the Maintenance of Parents Act since year 1995. This states that adult children are bound by the law to pay for the upkeep of their elderly parents aged 60 years or more, failing which they may be charged in a court of law, whereby they would

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be fined or imprisoned (Attorney-General's Chambers Singapore, 1995; Ting & Woo, 2009). This law is common to India and China too, where tribunals have been established to enable elders to demand maintenance of up to USD 220 a month from children via a court order (Shetty, 2012). Although this seems harsh, sometimes where family is the only fall-back option for elders living alone, and institutionalisation of elders is not common place, this may be a necessary measure.

Perhaps in Malaysia, it remains to be seen whether a similar act should be instituted, in order to reduce the health and welfare burden on the government when there are children able to provide financially for elderly parents. This is especially so as existing documents that discuss elders rights or maintenance are generalising towards all older persons, with no specific focus on elders as parents, which would make the children of these elders responsible for them. The legal uncertainty on the rights of elderly parents has not been addressed by the various existing policy documents (Imam-Tamim, 2015). This is echoed by Hamid (2015) who suggests unifying the codification of laws pertaining to the elderly in Malaysia, so that one Elder Act covers all aspects pertaining to the elderly. Comparing the different approaches broadly adopted by western and Asian countries, he goes on to say that there is a fundamental difference between these two. In the western approach, the policy is to provide support and services by the government towards the elderly, with no obligation by the members of family of the neglected elderly person. The legal obligation of protecting the elderly rests on the governments there. In the Asian approach the obligation rests on the family and this is sanctioned by the judiciary itself.

This is supported by other local researchers that Malaysia should indeed emulate the law and practice in Singapore and not depend on the general implied provision in various Islamic family law statutes, as well as that a single provision may not be sufficient, highly recommending an Elder Act to deal with issues pertaining to the

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welfare of the elderly. Having thus said, more awareness on this matter can only come through education of the young, to inculcate love and respect for all persons, including elders (Imam Supaat, 2015).

Other research however, cautions against implementing punitive measures without first enhancing the support available to the elderly and their caregivers, as well as remedying services and facilities available to the elder at the societal and community level (Raja, 2015). The importance of new laws should benefit elderly and their families or caregivers. The elders health and welfare should be the prime concern, with laws legislated to help with various issues. These issues would include facilitating the protection of the basic necessities of life of elderly, especially if they should become unable to fend for themselves, as well as preventing elder abuse and neglect or reducing its prevalence, to compel children and grandchildren to ensure proper care of the elderly by drawing upon filial piety, and to enable or empower various health or social welfare personnel to enter the domestic residence of elderly to assess the risks, act on reported or suspected elder abuse, and provide statutory protection to elders where needed (Tagorano, 2015).

6.5 Further research

Longitudinal studies to follow up elders over time could lead to discovering important risk factors causal to the nature of this phenomenon of elder abuse, as well as outcomes associated with elder abuse. Besides that, studies examining the quality of relationship between caregiver and the elder, or a dyadic approach involving responses from both elders and caregivers may help shed light on the elder abuse phenomenon locally, including qualitative studies to understand this phenomenon in detail from the perspectives of abused elders and their perpetrators. Interventions targeting elders, their

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caregivers, family, community, health or social care providers is another area of future research.

Future studies could employ larger sample sizes to allow analysis of individual subtypes of elder abuse. This would provide clarity on the various factors associated with each subtype of elder abuse. Studies in different populations and areas of Malaysia, with both urban and rural dwelling elderly could also be done, to overcome sociodemographic differences, and to identify factors associated with elder abuse in different communities. Further stratification based on sex could be done, to study this phenomenon further, as in this study, elderly males were found to have higher odds of experiencing abuse. This finding is not a common finding when compared to other countries, and it remains to be seen if this is so because of the Asian importance on filial piety, besides the local culture and tradition in Negeri Sembilan state, or whether the same pattern would be observed. A qualitative approach to explore how abused elders disclose or report of abuse and its sequelae would aid understanding this phenomenon in detail.

The spotlight on elders and research pertaining to elder abuse should be encouraged, rather than treating elder abuse lightly as a minor problem or even hiding it away as a shameful phenomenon. Researchers on this topic should come together and highlight their findings at workshops, seminars and conferences to build networks among likeminded persons and create awareness of this problem. Together, researchers may be able to reach out to the important stakeholders such as those in the Ministry of Health and Ministry of Women, Family and Community Development. Various cooperative activities between MOH, the Department of Social Welfare which falls under the jurisdiction of the Ministry of Women, Family and Community Development, and the legal fraternity even can be initiated and documented to help form future policy.

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6.6 Summary

In summary, these factors associated with elder abuse are largely modifiable but the degree to which it is done largely depends on the influence and interest of the various stakeholders. Recognising the importance of elder abuse, research findings should be translated into meaningful policy and measures by governmental agencies. These measures to influence elders and their communities are not difficult to implement in the current context of the Malaysian situation, where elders living with families is encouraged and supported by all. Lastly, it is important to re-emphasize the principles of the World Health Organization, which states that measures that leads to a better quality of life are not a luxury, but a necessity for the elderly (World Health Organization, 2002).

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List of Publications and Papers Presented

Publications:

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2. Sooryanarayana, R., Choo, W. Y., Hairi, N. N., Chinna, K., & Bulgiba, A. (2015). Insight Into Elder Abuse Among Urban Poor of Kuala Lumpur, Malaysia—A Middle-Income Developing Country. Journal of the American Geriatrics Society, 63(1), 180-182.

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5. Rajini Sooryanarayana, Wan Yuen Choo, Noran N Hairi, Farizah Hairi, Zainudin Mohamad Ali, Sharifah Nor Ahmad, Inayah Abdul Razak, Suriyati Abdul Aziz, Rohaya Ramli, Rosmala Mohamad, Karuthan Chinna, Awang Bulgiba. Elder abuse in a rural community in Malaysia: The who and the how. A Collection of Articles on "Protecting Elderly Against Abuse and Neglect: Legal and Social Strategies". University of Malaya Law Faculty (in press)

6. Rajini Sooryanarayana, Choo Wan Yuen, Noran N Hairi, Farizah Hairi, Hafiszullah Maarof, Mohamad Faris Madzlan, Awang Bulgiba. Conducting sensitive research among community dwelling elders: The importance of interviewer debriefing.

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A Collection of Articles on "Protecting Elderly Against Abuse and Neglect: Legal and Social Strategies". University of Malaya Law Faculty (in press)

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The following papers have also been presented in seminars or conferences as listed below:

1. A Review on the Prevalence and Measurement of Elder Abuse in the Community, 1st Asia Pacific Clinical Epidemiology and Evidence Based Medicine (AP CEEBM) Conference, Sunway Putra Hotel, Kuala Lumpur (8 July 2012) (Oral, International level) (Best oral presentation)

2. Elder Abuse among the Urban Poor of Kuala Lumpur, Malaysia, University of Malaya Research Week (24 -28 March 2014) (Poster, University level)

3. The Ethics of Conducting Sensitive Research among Community Dwelling Elders: The Interviewers Perspective, 46th Asia-Pacific Academic Consortium for Public Health, KL Hilton, 17 October 2014 (Poster, International level)

4. Cinderella's Lifetime Abuse. 11th Ministry of Health-Academy of Medicine Malaysia (MOH-AMM) Scientific and Annual National Ethics Seminar, Institute of Health Management, National Institutes of Health, Ministry of Health Malaysia (12-14 August 2015) (Poster, National level)

5. Elder Abuse in a Rural Community in Malaysia: The Who and the How. National Seminar on Protecting Elderly against Abuse and Neglect: Legal and Social Strategies, Faculty of Law, University of Malaya (19 November 2015) (Oral, National level, Invited speaker)

6. Conducting Sensitive Research among Community Dwelling Elders: Meeting the Safety Needs of Interviewers. National Seminar on Protecting Elderly against Abuse and Neglect: Legal and Social Strategies, Faculty of Law, University of Malaya (19 November 2015) (Oral, National level, Invited speaker)

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7. Prevalence and Factors Associated with Elder Abuse: A Community Based Study in a Rural Community of Malaysia, 8th National Public Health Conference, Hotel Equatorial Melaka (3 August 2016) (Oral, National level)

8. Sooryanarayana, R., Choo, W.Y., & Hairi, N.N. Alone and Lonely: A Case Study on Elder Abuse in Malaysia. NIH Research Week 2016, Institute of Health Management, National Institutes of Health, Ministry of Health Malaysia (19-23 Nov 2016) (Poster, National Level, submitted)

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A Review on the Prevalence and Measurement of Elder Abuse in the Community

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Abstract

Objectives: Aging is a rising phenomenon globally and elder abuse is becoming increasingly recognized as a health and social problem. This review aimed to identify the prevalence of elder abuse in community settings, and discuss issues regarding measurement tools and strategies to measure elderly abuse by systematically reviewing all community-based studies conducted worldwide. **Method:** Articles on elder abuse from 1990 to 2011 were reviewed. A total of 1,832 articles referring to elders residing at home either in their own or at relatives' houses were searched via CINAHL and MEDLINE electronic databases, in addition to a hand search of the latest articles in geriatric textbooks and screening references, choosing a total of 26 articles for review. **Results:** Highest prevalence was reported in developed countries, with Spain having 44.6% overall prevalence of suspicion of abuse and developing countries exhibiting lower estimates, from 13.5% to 28.8%. Physical abuse was among the least encountered, with psychological abuse and financial exploitation being the most common types of maltreatment reported. To date, there is no single gold standard test to ascertain abuse, with numerous tools and different methods employed in various studies, coupled with varying definitions of thresholds for age. **Conclusion:** Current evidences show that elder abuse is a common problem in both developed and developing countries. It is important that social, health care, and legal systems take these findings into consideration in screening for abuse or reforming existing services to protect the health and welfare of the elderly.

Keywords

elder, elderly, aged, abuse, mistreatment, maltreatment, diagnosis, prevention and control

Introduction

With the increase in aging population globally, the occurrence of elder abuse is on the rise (Esther, Shahrul, & Low, 2006; Gorbien & Eisenstein, 2005; Wang, Lin, & Lee, 2006). Elder abuse first came to light in the 1970s in the United Kingdom where the term *granny battering* was coined, but the United States was the pioneer to lead the way in studies conducted on elder abuse and neglect (Aravanis et al., 1993).

This review highlights the prevalence of elder abuse as well as how it is measured or quantified in different societies and cultures. Factors possibly linked to the outcome of elder abuse are thus indirectly studied. Elder abuse, or mistreatment, has been known to occur in various settings, such as home or long-term care institutions, perpetrated by caregivers who are usually close family members or staff of nursing homes. Sometimes, self-neglect occurs, whereby the elder is both the perpetrator and the victim (Buri, Daly, Hartz, & Jogerst, 2006; Christie et al., 2009; Garre-Olmo et al., 2009; Gorbien & Eisenstein, 2005; Ogg & Bennett, 1992; Oh, Kim, Martins, & Kim, 2006; Pillemer & Finkelhor, 1988; Wang, 2005; E. C. W. Yan & Tang, 2004).

Consequences of elder abuse may be indirect, ranging from increased health care costs of caring for elders, lesser productivity of family members who stay at home to take care of the elders under their care, or increased stress levels and perception of burden of caregivers, which may in itself lead to abuse (Fulmer & Hernandez, 2000; Gorbien & Eisenstein, 2005; Pérez-Rojo, Izal, Montorio, & Penhale, 2008; Wang et al., 2006). Immediate consequences to the elder range from feelings of anger, disappointment, grief, aggressively responding to the abuse themselves, being scared, sustaining bruises, losing considerable finances or property, trying to prevent further abuse, and sustaining more psychological distress (Comijs, Pot, Smit, Bouter, & Jonker, 1998; E. Yan & Tang, 2001).

The World Health Organization uses the definition developed by Action on Elder Abuse in the United Kingdom and adopted by the International Network for the Prevention of Elder Abuse: "Elder abuse is a single or repeated act, or lack

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INSIGHT INTO ELDER ABUSE AMONG URBAN POOR OF KUALA LUMPUR, MALAYSIA—A MIDDLE-INCOME DEVELOPING COUNTRY

To the Editor: Malaysia's population is aging rapidly because of rising life expectancy, a lower crude death rate, and a falling birth rate.[1] Sensitivity regarding the problems of elderly adults is necessary. Social problems such as elder abuse and neglect must be identified now to ensure that vulnerable older adults are protected and that Malaysia progresses as an aging society. Well-established child protective services serve as an example of how to do so.[2] Research in developed countries is now focusing on a vulnerability index to identify such individuals within the community.[3] Because these social problems have multiple contributing factors, a proper screening method and a broad multidisciplinary intervention approach are required.[4]

In Malaysia, the National Policy for the Elderly 2011[5] outlines six strategies centered on promotion and advocacy, safety and protection, and intergenerational involvement, among others. It emphasizes that elderly adults should be able to live with respect and self-worth, to be safe and free from oppression and abuse, and to continue living with their family within society as long as possible. This is a common attitude in Asian cultures, where filial piety toward elderly adults and preserving the integrity of family structure is valued, and institutionalization of elderly adults is frowned upon.

METHODS

A pilot study among the urban poor in the capital city of Kuala Lumpur was conducted in December 2012. The researcher and trained enumerators interviewed 291 individuals aged 60 and older living in low-cost government subsidized flats face-to-face using an instrument developed based on recent work in a national Irish elder abuse and neglect prevalence survey.[6] This instrument was first validated locally in an expert panel of social workers and public health experts in the field of violence and geriatrics and subsequently tested in a small subset of elderly adults. Sufficient content validity and face validity was declared before interviews were conducted on this sample of 291 elderly adults.

RESULTS

Of 291 elderly persons interviewed, 28 (9.6%) reported experiencing some form of abuse or neglect in the preceding 12 months. Abuse refers to overall abuse, which may be a combination of one of more of its subtypes (physical, financial, psychological, sexual, neglect). Financial abuse was most common (6.2%), followed by psychological

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Table 1. Proportions of Elderly Respondents Reporting Abuse in the Past 12 Months

	Overall	Financial	Physical	Psychological	Sexual	Neglect
Instances of Abuse			n (%)			
0	263 (90.4)	263 (90.4)	263 (90.4)	263 (90.4)	263 (90.4)	263 (90.4)
1 to 2	20 (6.9)	13 (4.5)	4 (1.3)	9 (3.1)	2 (0.7)	1 (0.3)
≥3	8 (2.7)	5 (1.7)	1 (0.3)	4 (1.3)	1 (0.3)	0 (0)
Total abused	28 (9.6)	18 (6.2)	5 (1.6)	13 (4.5)	3 (1.0)	1 (0.3)

(4.5%), physical (1.6%), and sexual (1.0%) abuse, and neglect (0.3%). Two thirds of people abused had experienced two or more incidents of abuse in the preceding 12 months (Table 1). Being female, divorced, younger (60–64), and of Indian ethnicity; being poor, depressed, or currently employed; living alone; and having a primary school education or less, poor social support, or cognitive impairment were associated with greater odds of abuse.

Further statistical analysis using SPSS version 21.0 (SPSS, Inc., Chicago, IL) and forward step-wise multiple logistic regression to analyze the above factors while controlling for age, sex, marital status, education, ethnicity, and income revealed that individuals who were depressed were three times (odds ratio (OR) = 3.26, 95% confidence interval (CI) = 1.02–10.43) as likely to report being abused than those who were not and that individuals who were currently employed were three times (OR = 3.25, 95% CI = 1.10–9.58) as likely to disclose abuse.

DISCUSSION

Almost 10% of elderly adults interviewed disclosed that they had been abused in the past 12 months. This figure corroborates prevalence rates found in other Asian countries, which range from 14.0% to 27.5%.[7] Previous local studies had also identified a lack of awareness of elder abuse within the wider community, including healthcare workers.[8–10] There is also a lack of detection measures or screening, and even when cases are identified, there are no established frameworks for elder abuse reporting, which in turn hampers early intervention to protect elderly adults.

Depressed elderly adults were more likely to be abused than others, which is a finding that was common to eight of the 26 studies reviewed previously.[7] Currently employed elderly adults earn little, with most being in manual categories of work. This contributes to what little the family earns. Many studies relate lower levels of family income to higher odds of abuse,[7] which may explain why older adults who are employed are more vulnerable to financial abuse.

CONCLUSION

This preliminary study highlights elder abuse as a public health problem in Malaysia, and it is hoped that it will sensitize healthcare workers and academia toward it, in addition to underscoring why longitudinal studies are needed to study this phenomenon to guide effective screening and intervention, interagency collaboration, laws, and policies for vulnerable elderly adults, which are currently lacking.

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Author Contributions: Sooryanarayana: literature search; study design, data collection, entry, analysis, interpretation; writing, submission. Choo, Hairi: study design, data analysis and interpretation, writing, editing. Bulgiba: data interpretation, writing, editing. Chinna: data analysis and interpretation, writing, editing.

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Cinderella's Lifetime Abuse

Life is not always a fairy tale, especially for frail isolated elderly adults living far from family. I was reminded of this sad fact during the course of conducting a survey on elder abuse and neglect among rural community-dwelling elderly adults in Malaysia, when I came across Mrs. ST, who willingly shared the story of her life with us. When I called upon Mrs. ST in her house one hot, sunny afternoon, in the village she has lived in most of her life, she came across as warm and personable, despite being bedridden. She is a 76-year-old widow, having grown children who live away and visit periodically, and lives with a dedicated maid who assists with her daily needs.

Before her husband died, he had inflicted frequent psychological, physical, and even sexual abuse on her. Her family, whom she confides in, were unable to protect her from this situation. At the most, her children would warn her that her husband was irritable and to avoid him at times, but he would invariably find her and beat, kick, or punch her, even locking her up, in addition to demeaning her, slighting her, and being suspicious and jealous of any contact she may have had with men, even the handyman or mailman.

According to her, her once-loving husband turned into a jealous and abusive person in the last 4 years of his life. From her account, we can only wonder whether he had dementia or some other untreated condition. If we had not visited her in this remote area, her story might not have come to be known. Local health and social welfare authorities followed up with elderly adults found to be abused in the recent survey and hence had some form of monitoring or even closure to their unhappy situation.

This is an attempt to share her experiences, to bring her story out of the shadows. Mrs. ST was brought up practically an orphan. Her mother died when she was an infant, her father left the family shortly after, and her older siblings raised her, treating her much like Cinderella, forcing her to perform household chores, besides being beaten and starved by her older sister. When she was older, she ran away and was later taken in by her older brother, in exchange for assisting with his growing family. This was a welcome refuge from the abusive situation that she escaped from, living with little or no shelter for a time.

At 14, she married for the first time but soon separated because of pressure from her mother-in-law. She remarried at 19 and lived happily until her twilight years, when this husband began mistreating her in his last few years of life. Mrs. ST has a wistful look on her face when she speaks about him, choosing to remember the better parts of a lifetime shared with him, showing us jewelry and keepsakes she still has from him, and not the harsh reminders of abuse encountered toward the end. If only all of us were that forgiving. Although she is no longer at risk of abuse and has forgiven the perpetrator of her abuse, the effects may still be upon her, as she feels lonely and a little depressed. One wonders, with proper elder protective measures in place, if Mrs. ST would have had a happy ending, just like Cinderella.

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Elder mistreatment in a community dwelling population: the Malaysian Elder Mistreatment Project (MAESTRO) cohort study protocol

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ABSTRACT

Introduction: Despite being now recognised as a global health concern, there is still an inadequate amount of research into elder mistreatment, especially in low and middle-income regions. The purpose of this paper is to report on the design and methodology of a population-based cohort study on elder mistreatment among the older Malaysian population. The study aims at gathering data and evidence to estimate the prevalence and incidence of elder mistreatment, identify its individual, familial and social determinants, and quantify its health consequences.

Methods and analysis: This is a community-based prospective cohort study using randomly selected households from the national census. A multistage sampling method was employed to obtain a total of 2496 older adults living in the rural Kuala Pilah district. The study is divided into two phases: cross-sectional study (baseline), and a longitudinal follow-up study at the third and fifth years. Elder mistreatment was measured using instrument derived from the previous literature and modified Conflict Tactic Scales. Outcomes of elder mistreatment include mortality, physical function, mental health, quality of life and health utilisation. Logistic regression models are used to examine the relationship between risk factors and abuse estimates. Cox proportional hazard regression will be used to estimate risk of mortality associated with abuse. Associated annual rate of hospitalisation and health visit frequency, and reporting of abuse, will be estimated using Poisson regression.

Ethics and dissemination: The study has been approved by the Medical Ethics Committee of the University of Malaya Medical Center (MEC Ref 902.2) and the Malaysian National Medical Research Register (NMRR-12-1444-11726). Written consent was obtained from all respondents prior to baseline assessment and subsequent follow-up. Findings will be disseminated to local stakeholders via forums with community leaders, and health and social welfare departments, and published in appropriate scientific journals and presented at conferences.

Strengths and limitations of this study

- This study is among the first few cohort studies investigating into elder mistreatment in the South East Asian region.
- It has a prospective study design with a long period of follow-up, with emphasis not only on epidemiological characteristics of elder mistreatment but also on determinants at different levels of framework and measuring consequences of abuse.
- The study subjects are representative of the older rural Malaysian population as the sampling frame is derived from the national census.
- Face-to-face interviews and active engagement of local community with personalised contact were employed to ensure a high response rate.
- Exclusion of groups most at risk of elder mistreatment, in particular, older adults with dementia, those with severe cognitive impairment and elders residing in long-term care institutions, may potentially under-report the abuse estimates.

INTRODUCTION

The publication, 'Granny Bashing', in 1975, is generally regarded as the starting point for systematic research into elder abuse.[1 2] More recently, there has been an expanding movement to improve rights of the elderly, and their physical and emotional well-being. The WHO has recognised elder mistreatment (also known as elder abuse and neglect) as a

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Appendix A: Critical appraisal of quality of studies chosen

No. *	Target popu-lation defined	Proba-billity samp-ling	Character-istics of respondents matching target population	Standard-ized method of data collection	Relia bility	Valid-ity	Samp -ling desig n	Confid-ence interval	Tot -al
1	Yes	Yes	Yes	Yes	No	Yes	No	No	5/8
2	Yes	Yes	Yes	Yes	No	Yes	No	Yes	6/8
3	Yes	Yes	No	Yes	No	No	No	Yes	4/8
4	Yes	Yes	No	Yes	No	No	No	Yes	4/8
5	Yes	Yes	Yes	No	No	No	Yes	Yes	6/8
6	Yes	No	No	Yes	Yes	Yes	No	Yes	5/8
7	Yes	Yes	No	Yes	No	No	Yes	Yes	5/8
8	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	7/8
9	Yes	Yes	No	Yes	No	No	No	No	3/8
10	Yes	No	No	Yes	No	No	No	Yes	3/8
11	Yes	Yes	Yes	Yes	Yes	Yes	No	No	6/8
12	Yes	Yes	No	No	No	No	No	No	6/8
13	Yes	No	Yes	Yes	Yes	No	Yes	Yes	6/8
14	No	No	No	Yes	Yes	No	No	Yes	3/8
15	Yes	No	No	Yes	Yes	No	Yes	No	4/8
16	Yes	Yes	No	Yes	Yes	Yes	Yes	No	7/8
17	Yes	No	No	Yes	No	No	Yes	Yes	4/8
18	Yes	No	No	Yes	No	No	Yes	No	3/8
19	No	No	No	Yes	Yes	Yes	Yes	Yes	3/8
20	No	No	No	Yes	Yes	Yes	No	Yes	4/8
21	No	No	No	Yes	No	No	Yes	No	2/8
22	Yes	No	No	Yes	Yes	No	No	Yes	4/8
23	Yes	No	No	Yes	No	No	No	No	2/8
24	Yes	No	No	Yes	Yes	Yes	No	Yes	5/8
25	No	No	No	Yes	Yes	No	No	Yes	4/8
26	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	7/8
27	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	7/8
28	Yes	Yes	Yes	Yes	No	No	No	No	4/8
29	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	7/8
30	Yes	Yes	Yes	Yes	No	No	No	Yes	5/8
31	Yes	Yes	No	Yes	No	Yes	Yes	Yes	6/8
32	Yes	Yes	Yes	Yes	No	No	Yes	Yes	6/8
33	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	7/8

*Numbering follows that of the studies in Table 2.2

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Appendix B: Table showing prevalence of elder abuse and its measurement from selected studies

No	Study (year)	Type, Location	Elder abuse prevalence	Measurement tool/instrument	Method	Documented psychometric properties	Subject
1	Christie J et al (2009)	Cross-sectional, USA	Not available *	Conflict Tactics Scale (CTS) + own questions	Structured interview using 10-item instrument (PHB), checklist with 18 items (AC), 11-item checklist (EC)	Yes	Elder and caregiver.
2	Dong et al (1993-2005)	Cross-sectional, USA	Not available*	Own questions	15-item checklist with in-home assessment by Chicago Department on Aging (CDOA) staff	Yes	Elder
3	Perez-Carceles et al (2006)	Cross-sectional, Spain	Suspected overall abuse 44.6%: • Withholding care 31.1% • Psychological abuse 20.7% • Physical negligence 17% • Financial abuse 7.2% • Emotional negligence 7% • Physical abuse 2.4% • Sexual abuse 1.3%	Canadian Task Force (CTF) and American Medical Association (AMA) questionnaire adopted	Structured interview at home with 8-item checklist	No	Elder
4	Garre-Olmo et al (2007)	Cross-sectional, Spain	Overall abuse 29.3% • Suspected neglect abuse 16.0% • Psychosocial abuse 15.2% • Financial abuse 4.7% • Physical abuse 0.1%	AMA screen	Structured interview at home with 9-item checklist from AMA Screen for Various Types of Abuse and Neglect	No	Elder
5	Lachs MS et al (1982 onwards for 13 years)	Cohort, USA.	Not available *	Adult Protective Services (APS) mandatory reporting	Mandatory reporting of elder abuse by mandatory reporters to ombudsman in APS, who then determines if abuse occurred	No	Mandatory reporters (physicians, nurses, social services)
6	Oh J et al (1999)	Cross-sectional, Korea	Overall abuse 6.3% • Emotional 4.2% • Verbal 3.6% • Economic 4.1%	Structured interview	Structured interview at home with 5-category checklist	Yes	Elder

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No	Study (year)	Type, Location	Elder abuse prevalence	Measurement tool/instrument	Method	Documented psychometric properties	Subject
			• Neglect 2.4% • Physical 1.9%				
7	Ogg J et al (1992)	Cross-sectional, Britain	• Verbal 6–11% • Physical 1–5% • Financial 2–5%	Questionnaire	Questionnaire based on American and Canadian techniques.	No	Elders
8	Pillemer K et al (1988)	Cross-sectional, USA.	Overall abuse 32/1000 • Physical abuse 20/1000, • Chronic verbal aggression 11/1000 • Neglect 4/1000	Modified form of CTS Part of the Older American Resources and Services (OARS) instrument	Two interviews by phone or in person	No	Elders
9	Comijs et al (1998)	Cross-sectional, Netherlands	Overall abuse: 5.6% • Verbal aggression 3.2% • Physical aggression 1.2% • Financial mistreatment 1.4% • Neglect 0.2%	CTS Measure of Wife Abuse Violence against Man Scale Modified ADL questionnaire	Checklist of questions plus newly developed and open-ended questions via interview.	No	Elders
10	Beach SR et al (2005)	Cross-sectional, USA	Not available *	Modified CTS	Structured interview at elder's home	No	Elder and caregiver
11	Wang JJ et al (2005)	Cross-sectional, Taiwan, China	Psychological abuse 22.6%	Psychological Elder Abuse Scale (PEAS)	Structured interview at elders' homes/ community institutions, administered in 10 minutes.	Yes	Elders
12	Buri et al (1999)	Cross-sectional, USA	Overall abuse 20.9%	Elder Abuse Screen	Own questions developed to interview elders	No	Elders, or helped by researcher
13	Shugarman et al (1997)	Cross-sectional, USA	Overall abuse 4.7%	Minimum Data Set for Home Care instrument	Assessment by a third party based on the MDS-HC	No **	Elders
14	Yan ECW et al (2004)	Cross-sectional, Hong Kong, China	Overall abuse 27.5% • Verbal 26.8% • Physical 2.5%	Revised CTS2	12-item checklist	No **	Elders

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No	Study (year)	Type, Location	Elder abuse prevalence	Measurement tool/instrument	Method	Documented psychometric properties	Subject
			• Violation of personal rights 5.1%				
15	Yan ECW et al (2001)	Cross-sectional, Hong Kong, China	Overall abuse 21.4% • Verbal 20.8% • Physical & social 2–5%	Revised CTS2	12-item checklist questionnaire administered verbally	No **	Elders
16	Chokkanathan et al (2006)	Cross-sectional, India	Overall prevalence 14% • Chronic verbal abuse 10.8% • Financial abuse • Physical abuse 4.3% • Neglect 4.3%	CTS	Checklist for interviews	Yes	Elders
17	Kivela SL et al (1992)	Cross-sectional, Finland	Prevalence 6.7% overall, but 5.4% after excluding institutional abuse and abuse by strangers	Not mentioned	Interview, examination, postal questionnaire.	No	Elders
18	Fulmer T et al (2000)	Cross-sectional, USA	Prevalence: 12.3%, but 3.6% after excluding "apprehensive," and 1.1% upon exclusion of "apprehensive" and "frightened" from the definition	Social Worker Informant Interview	Social worker administered questionnaire	No	Elders
19	Acierno R et al (2010)	Cross-sectional, USA	Overall prevalence 11.4% • Physical 1.6% • Sexual 0.6% • Emotional 4.6% • Financial 5.2% • Potential neglect 5.1%	Own questions	Telephone interview. Own questions formed based on National Research Council	No	Elders
20	Dong XQ et al (2010)	Cross-sectional, China	Not available *	Modified Vulnerability to Abuse Screening Scale (VASS)	Self-administered questionnaire	Yes	Elders

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No	Study (year)	Type, Location	Elder abuse prevalence	Measurement tool/instrument	Method	Documented psychometric properties	Subject
21	Puchkov PV et al (2006)	Cross-sectional, Russia	Overall abuse 28.63%	Not mentioned	Self-administered questionnaire or a structured interview	No	Elders
22	Kissal et al (2011)	Cross-sectional, Turkey	Overall prevalence 13.3% • Psychological 9.4% • Neglect 8.2% • Physical 4.2% • Financial 2.1% • Sexual 0.9%	Own questions	Structured interview	No **	Elders
23	Iecovich E et al (2004)	Cross-sectional, Israel	Incidence of elder abuse and neglect:0.5% • Physical 11.7% • Mental 10.8% • Economic 7.5% • Neglect 3.3 • Sexual 0.8%	Questionnaire completed by social workers	In-home assessment and intervention plan followed suspicious findings on questionnaire	No	Elders
24	Chompunud et al (2010)	Cross-sectional, Thailand	Overall prevalence 14.6% • Psychological 41.18% • Financial 20.59% • Physical 2.94% • Neglect 2.94% • Mixed 32.75%	• Diagnostic criteria for elder abuse (DCEA) • Interview guideline for screening of elder abuse (IGSEA) • Family member at risk questionnaire (FMRAQ) were developed and validated	Structured interview in elders homes or community centers	Yes	Elders
25	Cooper C et al (2006)	Cross-sectional, 11 European countries	Overall abuse 5%	Inter-RAI Version 2.0 Minimum Dataset Homecare (MDS-HC)	Structured interview	Yes	Elders

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No	Study (year)	Type, Location	Elder abuse prevalence	Measurement tool/instrument	Method	Documented psychometric properties	Subject
26	Naughton et al (2011)	Cross-sectional, Ireland	Overall prevalence 2.2% • Financial 1.3% • Psychological 1.2% • Physical 0.5% • Neglect 0.3% • Sexual 0.05%	Conflict Tactics Scale (CTS) for physical, psychological, and sexual abuse Adopted from the UK and USA studies for neglect and financial abuse.	Structured interview face-to-face at home, no proxy respondents allowed	Yes	Elder alone
27	Wu L et al	Cross-sectional, China	Overall abuse, 36.2% • Psychological 27.3% • Neglect 15.8% • Physical 4.9% • Financial 2.0%	Modified from Hwalek-Sengstock Elder Abuse Screening Test and the Vulnerability to Abuse Screening Scale.	Structured interview face-to-face at home	No	Elders
28	Peshevska et al (2014)	Cross-sectional, Macedonia	• Psychological 25.7% • Financial 12.0% • Neglect 6.6% • Physical 5.7% • Physical injury 3.1% • Sexual 1.3% (females)	Based on • ABUEL survey (Abuse of Elderly in Europe) a multinational prevalence survey, in Germany, Greece, Lithuania, Italy, Portugal, Spain, Sweden • AVOW (Prevalence study of abuse and violence against older women) a multicultural survey in Austria, Belgium, Lithuania, Finland, and Portugal	Community based face-to-face interview with elder person	No	Elders
29	DeLiema et al (2012)	Cross-sectional, USA	• Overall 40.4% • Psychological 24.8% • Financial 16.7% • Neglect 11.7% • Physical 10.7% • Sexual 9.0%	63-item abuse instrument developed from the University of Southern California Older Adult Conflict Scale (USC-OACS), including questions derived from the Revised Conflict Tactics Scales (CTS2	Community based face-to-face interview with elder person by trained promotores, local Spanish-speaking Latinos, to interview the Latino target population	Yes	Elders

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No	Study (year)	Type, Location	Elder abuse prevalence	Measurement tool/instrument	Method	Documented psychometric properties	Subject
				and CTSPC) and the Conflict Tactics Scales for Older Adults			
30	Ergin et al (2012)	Cross-sectional, Turkey	• Overall 14.2% • Psychological 8.1% • Neglect 7.6% • Financial 3.5% • Physical 2.9% • Sexual 0.4%	Own questions	Community based face-to-face interview with elder person at home.	No	Elders
31	Gil et al (2015)	Cross-sectional, Portugal	• Overall 12.3% • Psychological 6.3% • Financial 6.3% • Physical 2.4% • Neglect 0.4% • Sexual 0.2%	An operational framework developed based on actions described in the Portuguese Penal Code, besides the operational concepts used in previous studies (Naughton et al.,2012; O'Keeffe et al., 2007; The Lifespan of Greater Rochester, Inc., Weill Cornell Medical Center of Cornell University, & New York City Department for the Aging, 2011)	Computer-assisted telephone interviewing with elder person	No	Elders
32	Biggs et al (2009)	Cross-sectional, UK	• Overall 2.6% • Neglect 1.1% • Financial 0.6% • Psychological 0.4% • Physical 0.4% • Sexual 0.2%	Operational definition followed work of Comijs (1998), Pillemer (1988) and Podnieks (1990), building upon the WHO framework.	Computer assisted personal interview (CAPI) face-to-face by interviewer with elder person at their home, with computer assisted self-interview (CASI) for sensitive parts of questionnaire	No	Elders
33	Burnes et al (2015)	Cross-sectional, USA	• Overall 4.6% • Emotional 1.9% • Physical 1.8%	Modified version of CTS for physical and emotional abuse. Duke Older Americans	Random-digit-dial stratified sampling method based on census data to perform telephone	Yes	Elders, or proxy for those with

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No	Study (year)	Type, Location	Elder abuse prevalence	Measurement tool/instrument	Method	Documented psychometric properties	Subject
			• Neglect 1.8%	Resources and Services (OARS) ADL and IADL scales for neglect.	interviews		physical, language or communica-tion barriers

* prevalence estimates not mentioned as these studies look at the measurement of abuse and associated factors

** only reliability, but no validity

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Appendix C: Evidence based table showing prevalence, associated factors and measurement outcomes of various elder abuse studies

No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
1	Christie et al (2009, USA)	No overall prevalence measure.	Cross-sectional study. Face-to-face interviews 1.5-2 hours long carried out at participants homes, in 3 states of the USA. Both caregiver & care recipient interviewed separately simultaneously to avoid data contamination	Elders completed the quality of care measures. The 11-item Exemplary Care Scale assessed personalized care provided for elder psychological well-being. Caregivers completed the psychosocial measures of depressed effect, cognitive status life events and perceived pre-illness relationship quality. The repeatable battery for the assessment of neuro-psychological status (RBANS) was used to eliminate elders who couldn't participate due to cognitive impairment. PHB was assessed using a 10-item instrument	877 potential dyads, of which eventually 237 care recipients and their caregivers, care recipients being community dwelling elders aged 60 years or more, were chosen. Inclusion criteria: caregivers living in the same household as elders, or caregivers functioning as unpaid help, helping elders perform a minimum of one basic ADL and 2 IADL. Oversampling of African American dyads done to better compare White and African American caregivers University of	<u>Caregivers:</u> • Depression • Stressful life events	Correlation between quality of care provided and various demographic variables shown, besides its measurement and associated factors. Care recipients reported more potentially harmful behaviour (PHB) while their caregivers reported experiencing more depression, life events in the past six months, and poorer pre-illness relationships. Better care was related to better pre-	Shows that assessing quality of informal care provided involves more than merely determining if care recipient needs for ADLs are routinely fulfilled. Exemplary care (EC) adequate care and potentially harmful behavior (PHB) are various dimensions of quality of care which co-exist in various combinations.	<u>Limitations:</u> • Cross sectional thus causal inferences not possible. • Deliberate oversampling of African-Americans not representative of the population. • Study did not reproduce its findings that cognitively impaired caregivers are more likely potentially harm elders.

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
				developed from the Conflict Tactics Scale as well as own questions. Adequacy of care: Elders reported whether they needed assistance with 18 ADLs	Georgia Survey Research Center used to obtain a representative sample of elders, including targeted random digit dialing and list-assisted techniques. Secondary sources were telephone directories, voter registration data, drivers licence nformation		illness relationships but not caregiver life events or depression. Caregiver cognitive function was not correlated with quality of care or psychosocial factors related to the caregiver. The quality of care provided is related to psychosocial variables of the caregiver as reported by the caregivers themselves.		
2	Canadian Task Force (1994, USA and Canada)	Overall abuse, 1% in New Jersey 3.2% in Boston 4% from cross-Canada survey	3 cross-sectional studies across Canada and USA analysed. • New Jersey: stratified random sampling of 342 elders aged 65 years or more residing in the	Health Canada's definition of elder abuse and neglect used to classify: • Physical abuse. • Psychosocial abuse • Financial abuse	Various studies across Canada and USA, all employing community dwelling elders aged 65 years or more. 342 + 2000 + 2000 subjects	<u>Situational factors:</u> (a)Community: • Isolation • Lack of money • Lack of community resources for additional care • Unsatisfactory living arrangements (b)Institutions: • Shortage of beds		Termination of the abusive situation and prevention of further abuse explained. Consequences vary, it may result in cessation and prevention of abuse, or even loss of shelter in terms of a	

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
			community • Boston: stratified random sampling of over 2000 elders residing in the community, interviewed in person or via telephone • Canada: telephone survey across the nation of a randomized sample of 2000 elders from private homes	• Neglect Checklists (questionnaires) of indications of possible neglect or abuse and associated characteristics of the caregiver have been developed, with an example provided. However, it has not been validated or tested as a screening measure in primary care.		• Surplus of patients • Low staff:patient • Low education staff • Staff burnout <u>Victim:</u> • Lack of close family ties • History of family violence • Age over 75 years • Recent deterioration in health <u>Perpetrator:</u> • Stress • Deterioration in health • Bereavement • Substance abuse • Psychopathologic findings • Related to victim • Living with victim • Long duration of care for victim		private dwelling, or harm an established family structure with further loss of autonomy for the victim. Screening tool to evaluate if elder abuse has occurred with the aim of prevention and control of the situation.	
3	Dong XQ et al (1993-2005, USA)	Not available.	Cross sectional study in southern Chicago, USA. Anyone in the community can report suspected cases to the Chicago	The National Centers on Elder Abuse definition of self-neglect used i.e. '… the behaviour of an elderly person that threatenshis/her own health and safety. Self-neglect	Population based study involving 1812 of 9056 elders, identified for possible self-neglect, and limited to those aged 65 years and older.	• Women • African-American • Lower education • Lower income • Older subgroups • Cognitive impairment • Physical	Self-neglect reported by elder persons. Lower levels of social engagement and social networks are associated	Large sample size, study over several years gives better power of the study.	<u>Limitations:</u> Prevalence of self neglect as reported here only possible because done within a larger epidemio-logical study,

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
			Department of Aging (CDOA), a social services agency, who would subsequently investigate via a face-to-face interview of all subjects in their homes, in 3 yearly cycles.	generally manifests itself in an older person as a refusal or failure to provide himself/ herself with adequate food, water, clothing, shelter, personal hygiene, medication (when indicated), and safety precaution". Self neglect severity tested with a questionnaire containing 15 items for which interrater reliability coefficient was 0.70, Cronbach's alpha 0.70, face validity, content validity and external validity were present. • Cognitive function assessed by MMSE. • Physical function assessed by Katz ADL scale. • Depression assessed by the CESD scale.		impairment • Depressive symptoms • Social network • Social engagement	with an increased risk of self-neglect by 1.19 and 1.02 times respectively.		varying results may be obtained if done independently.

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
				• Social network assessed by asking about number of children, family and friends. • Social engagement assessed by asking frequency of participation in social activities outside home. • BMI = (wt in kg)/ square of (ht in m)					
4	Pérez-Cárceles et al (2006, Spain)	Suspected overall abuse 44.6% • withholding care, 31.1% • psychological abuse, 20.7% • physical negligence, 17% • financial abuse, 7.2% • emotional negligence, 7%	Cross-sectional study design	Suspected cases of elder maltreatment assessed via a questionnaire adapted from the CTF(1994) and AMA(1994) translated into Spanish. Elderly abuse, defined as "intentional actions that cause harm or a risk of harm, such as a carer's failure to satisfy the elder's	Face-to-face interview and a physical examination of 465 elder patients more than 65 years old visiting health care centres was done. Signs deemed as abuse include dehydration, malnutrition, poor body and/or mouth hygiene as	<u>Socio-demographic variables associated:</u> Age more than 75 years, female sex, living alone or with children, accommodation in relatives houses, income less than 300 euros per month. <u>Risk factors:</u> Recent worsening of health status, living with a mentally ill		Important for doctors to systematically ask elder patients about possible maltreatment by asking them directly as a means of screening for elderly abuse.	

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
		• physical abuse, 2.4% • sexual abuse, 1.3%		basic needs and to assure his/her safe living conditions. It includes physical, psychological and sexual abuse, financial abuse, and withholding care".	well as pressure ulcers.	person, drug or alcohol abuse, frequent arguing with relatives, dependence on another person to carry out a routine ADL.			
5	Garre-Olmo et al (2009, Spain)	Overall abuse, 29.3% • suspected neglect abuse, 16.0%, • psychosocial abuse, 15.2% • financial abuse, 4.7% • physical abuse, 0.1%	Cross-sectional study. Household based study with simple randomized stratified sampling done according to age group, from the municipal census.	Suspected elder abuse by AMA screen. Frailty and Dependence in Girona (FRADEGI) study developed by the authors to identify subjects. Abuse defined as ''any action or any lack of appropriate action that causes harm, intentionally or unintentionally, to an elderly person. Nutritional status assessed by Mini Nutritional Assessment (MNA). Cognitive function by MMSE. Depression by GDS-5. Functional independence by WHO disability assessment Schedule II	Population based study in which 676 elderly subjects aged 75 years or older from 8 villages in Spain were selected and interviewed at home using a pre-determined protocol	Cognitive status, presence of depressive symptoms, stress, besides bladder incontinence, bowel incontinence, & social isolation.		Ease of assessment of prevelance of abuse as the odds ratio and Confidence Intervals of each associated factor with each type of abuse are given.	Limitations: Focused on elders aged 75 years and above only, may therefore underestimate the prevalence as younger elders are not included.

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
				(WHODAS-II).					
6	Lachs & Pillemer (1982-1994, USA)	Not available.	Prospective cohort. Stratified sampling based on residential type. Baseline features ascertained before follow up every 3 years in person and yearly via telephone. 3 categories of elders identified by APS ie those abused, neglected or exploited, compared to elders not seen by APS. <u>Cognitive status:</u> Pfeiffer Short Portable Mental Status Questionnaire (SPMSQ) <u>Psychological factors:</u> Center for Epidemiological Studies Depression Scale	Elders identified and reported to the adult protective services (APS) and categorized by ombudsman into abuse, neglect or exploitatation.	2812 elders aged 65 years or more, residing in the community of New Haven, Connecticut, USA.	<u>Demographic:</u> Age, education, race, sex, income <u>Health related (self reported):</u> Stroke, myocardial infarct, cancer, diabetes, hypertension, hip fracture, BMI <u>Physical functioning</u>: ADL impairments, Rosow-Breslau or Nagi impairments <u>Social networks:</u> Marital status, social ties, frequent contact with friends & relatives, participation in social/community groups, regular attendance at religious services, emotional support Cognition and depression.	Factors predicting elder abuse identified, as well as elder abuse influencing mortality. Survival curves drawn showed elders abused/ neglected had 9% poorer survival than self-neglected (17%) or elder with no contact with APS (40%) 90% of elder mistreatment had occurred by year 8. Elders abused may be at risk of nursing home placement, which may be a relief, with access to food and care, or	Possible future research in multidisciplinary intervention stopping elder abuse and its effect on mortality reduction.	Limitations included such as possibility of lack of adjustment for confounders during multiple pooled logistic regression.

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
							may cause a higher risk of death in itself than usual.		
7	Oh J et al (1999, South Korea)	Overall abuse, 6.3% • Emotional 4.2% • Verbal 3.6% • Economic 4.1% • Neglect 2.4% • Physical 1.9%	Cross sectional study Home interview conducted after prior appointment made over the telephone.	Interviews administered by 30 trained registered nurses using a structured interview format. Responses were graded on a Likert scale. ADL measured by Barthel's index, IADL by PGC-IADL, cognitive function by MMSE-K developed for Korean populations. Abuse measured by 5 questions per category of abuse, validated and pre-tested by gerontological trained nurses in a similar population.	Population based survey where 15,230 of 15,700 people ages 65 years and older (representing 53% of the elder population in this district) were interviewed at home.	• Dependency of elders on the younger generation due to a lack of preparedness on the part of elders for their old age. • Younger generations shifting from extended families to nuclear families with women working find themselves burdened with caring for their elders. • Eldersdependency on the young, both financially and socially, worsened by a lack of welfare and social services. <u>Elder:</u> Age 65-69 years, female sex, poorly educated, financially dependent, anxiety	Injury, harm, or loss such as physical injury or financial loss, as well as anxiety, depression, and psychological stress. Besides that are learned helplessness, fear, shame, alienation, guilt, anxiety, denial, and posttraumatic syndrome	Odds ratios with confidence intervals shown for predictive risk factors make analyzing abuse data easier. Highlights the importance of future research on the elderly and their needs, in view of the rapidly growing elder population.	

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
						and poorer mental health status. Family characteristics: Elder living with children and their families, middle socioeconomic background, fairly good family relations, caregiving stress and burden.			
8	Ogg & Bennett (1992, Britain)	Verbal 6-11% Physical 1-5% Financial 2-5%	Cross-sectional study. Elder subjects asked about abuse by famly members/close relatives.	Wide behavioural definition used to capture all responses.	2681 selected addresses yielded 2130 interviews, from UK based elders aged 60 years or more, excluding those in institutions or too ill to participate. Adults in frequent contact with pensionable aged elders were also surveyed.	Not shown		Good response rate of 79%.	Elder abuse not defined, neither is the questionnaire used shown.
9	Pillemer and Finkelhor (1988, USA)	Overall abuse, 32/1000 • Physical abuse 20/1000, • Chronic verbal agression	Cross-sectional study. A stratified random sample of all community dwelling elders was listed then randomly selected for a 2 stage interview.	Psychological abuse operationalised/ measured using part of the Conflict Tactics Scale (CTS) however this is more specific for chronic verbal aggression.	Elders aged 65 years or more in Boston, USA. Study sample had similar demographic profile as the rest of Boston.	Elders: Cohabitation with family Male Married Poor health Stress		Addresses the need for prevalence studies to detect elder abuse correctly and not merely rely on reported cases characteristics. Cases reported to	• Financial exploitation not covered despite being recognized as a form of abuse, as it is placed under

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
		11/1000, • Neglect 4/1000.	3366 elders identified, of which 2813 (84%) were eligible, of which 2020 (72%) were interviewed in the first stage to ascertain if abuse had occurred. Second interview to gather details of the abuse and consequences. .	Neglect measured using part of the Older American Resources and Services (OARS) instrument concerned with ADL. Physical abuse operationalised using a modified form of the CTS.	Caregiver interviewed if elder unable to communicate in the interview. This yielded a good response and prevalence rates.			social services or reporting authorities are highly selective samples not representative of the general population. Other problems are lack of standardized definitions of elder abuse, relying on reports rather than interviews, lack of thorough research design. Disputes earlier findings of generalizing abuse as more prevalent among oldest old, and poorer people, presumably due to their higher visibility because of their disadvantaged status. Also investigates spousal elder abuse and abused men due to their higher prevalence rates here.	criminali-zation of the elderly. • Elder abuse rates not comparable to child or spousal abuse due to its self neglect component • Neglect, measured by the OARS, may be under-estimated. • Highlights importance of prevalence studies for subsequent policy development & service provider needs, education on abuse, tailor made services.
10	Comijs et al (Netherlands, 1998)	Overall abuse, 5.6% • Verba	Cross-sectional study design, biphasic, elders	<u>At baseline;</u> Chronic verbal aggression	1797 elders living in the community setting in	Argument, tension, jealousy, unexpected.	<u>Consequences</u> Anger Disappoint-	<u>Prevention:</u> Withdraw from abusive situation	Poor response rate of 59%

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
		l aggression 3.2% • Physical aggression 1.2% • Financial mistreatment 1.4% • Neglect 0.2%	identified at baseline subjected to repeat measurement after a one year period.	measured by the CTS + Measure of Wife Abuse. Physical aggression measured by the CTS, the Measure of Wife Abuse, and Violence Against Man Scale. Financial mistreatment assessed by two questions from the Measure of Wife Abuse scale as well as newly developed questions. Neglect evaluated by modified ADL questionnaire. For one year prevalence figures, cut off for neglect & chronic verbal aggression was occurrence of at least 10 times in the past year, physical and financial abuse once in the past year. <u>After one year:</u> Questions asked on consequences & prevention of abuse, via newly developed questions	Amsterdam, Netherlands identified from another study which was a community based, longitudinal study of cognitive status in non-institutionalised elders aged 65 years or more. A fixed proportion of elders was selected randomly from each of 4 5-year strata to obtain 1797 of 4051 elders. 4 years later, the original baseline elders who were able and willing to participate numbered 1954. Prevalence rates were calculated for the 1797 of 1954 elders.	Caregivers: Financial problems Health problems Addiction Cohabitation	ment Grief Aggression Bruises Loss of property/ money Economise Buy new things	Broke off contact with perpetrator Asked for help Interventions directed to stop abuse should focus on those elders who tried to prevent it but failed, in this study, 43% of abused elders.	

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				and open ended questions.					
11	Beach et al (2005, USA)	Not available.	Cross-sectional study. A multisite US based follow-up study of informal care using caregiver-care recipient dyads in 3 locations. .	1.5-2 hour long structured interview. Two interviewers simultaneously interviewed caregiver and care recipient to prevent data contamination. Adapted from the Conflict Tactics Scale (CTS). Neurobehavioural Cognitive State Examination for cognitive function. ADL instrument for care recipient needs for care. CES-D for caregiver depression.	Non-probabilistic sampling in areas served by three universities. 265 caregiver/care recipient aged more than 60 years dyads, community based. Caregiver providing help with one ADL or two IADL.	Cognitive status of the dyad, assessed by the Neurobehavioural Cognitive Status Examination , scored on a Likert scale. <u>Care recipient:</u> needs for care, anxiety, stress, self-rated health. <u>Caregiver</u>: Help provided, physical health, depressive symptoms.	Greater care recipient needs predispose elder to abuse by 1.12 times more than normal. Caregivers who are spouses of the elder are 8 times more likely to perpetrate abuse, and those with cognitive impairment by 1.20 times. Caregiver physical health and depression lead to potentially abusive behaviour.	Potentially negative effects of caregiving especially when caring for a relative. Potentially harmful informal caregiver behavior may lead to abuse. The importance is that preventive interventions may be taken. The same results were obtained even after excluding elders with high degree of cognitive impairment. Less self-report bias in the dyadic approach; important in formulating guidelines and recommendations for caregivers of patients.	Sample chosen from referred volunteer sample which may not be representative of target population.
12	Wang J-J et al (2005, Taiwan,	Psychological abuse, 22.6% .	Cross-sectional design.	The Psychological Elder Abuse Scale	195 elders aged 60 years or older,	Presence of chronic diseases,	Psychological abuse	.	Underreporting due to its hidden

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	China)		Face-to-face administration of questionnaire and direct observation of the elder.	(PEAS) with expert content validity index (CVI) 0.92 & test-retest reliability established and percentage agreement between two interviewers of between 79-100%, mostly with siginificant Kappa values. The Short Portable Mental State Questionnaire (SPMSQ) with Cronbach's alpha 0.70. Barthel's Index to assess limitations in ADL.	capable of verbal communication and partially dependent on a caregiver, comprising 99 institutionalised and 96 domestic elders who were chosen randomly from the study sites. Random sampling from several southern Taiwanese communities.	socioeconomic status, anxiety, stress, relationship between elder and caregiver, autonomy of the elder.	occurred more among elders with poorer cognitive and physical function.		nature where it can only be diagnosed by day-to-day interaction observation. Reluctance of elders to report due to dependency on caregiver /abuser for survival, elders fear of removal from their own homes or being institution-alised, due importance by government officials towards signs of physical abuse, and fear of researchers that family or staff would be accused of emotional mistreatment of elders.
13	Buri H et al (1999, USA)	Overall abuse, 20.9%	Cross-sectional study design. Questionnaires mailed to eligible elders in the state	Self-report survey, where possible elder abuse victims are identified by the short Elder Abuse	Elders who were considered eligible for institutional placement were	• Demographic characteristics • Barriers to accessing health			49% response rate i.e. 498 of 1017 questionnaires returned.

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			of Iowa, USA.	Screen. Own questionnaire developed and revised after pilot testing	able to stay at home because they were recipients of Iowa's Medicaid Waiver Program services, which assists persons 65 years or more with a certain income level, functional and/or mental impairments which lead to dependency. 2688 elders in Iowa, USA, and 292 others from a nearby county for long term follow up unrelated to the study were the pool of elder subjects, yielding a final sample of 1017.	care services • Need for health care services • Physical function • Stress • Depression • Cognitive ability • Social provision • Assistance completing the questionnaire (having help was compared to not having help)			
14	Shugarman et al (1997, USA)	Overall abuse, 4.7%	Cross-sectional study design.	A Cognitive Performance Scale (CPS) was constructed from the Minimum Data Set for Home Care (MDS-HC) assessment, being highly predictive of	Elders 60 years or more utilising home & community based services in Michigan, USA were chosen to represent elders residing in the	Demographic characteristics Behavioural measures Cognitive function Conflict with family/friends Social functioning Poor social support Loneliness		Focuses more on abuse perpetrated by others and not self-neglect	Good response rate of 100%.

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				the MMSE.	community who sought long term care services through various health programs. A total of 895 adults including disabled individuals less than 60 years was the sampling frame, of which 701 elders aged 60 years or more with one informal caregiver were chosen and who all participated in the study.	Anxiety Stress Home care: Alcohol abuse Psychiatric illness Unease in interaction Short term memory problems			
15	E.C.W. Yan and Tang (2004, Hong Kong, China)	Overall abuse, 27.5% • Verbal abuse, 26.8% • Physical abuse, 2.5% • Violation of personal rights, 5.1%	Cross-sectional study design. Orally administered questionnaire by three trained research assistants to individual subjects, who were told they were participating in a study about family relationships.	• Assessment of abuse via the Revised Conflict Tactic Scale (CTS2) which has good internal reliability for physical abuse (α 0.73), verbal abuse (α 0.82) & violation of personal rights (α 0.62). • Assessment of dependence	276 elder Chinese in Hong Kong aged 60 years or more, from community centres/ recreational areas in public housing areas. 5 of 8 community centers for elders agreed to have their members participate, from a total of 15 centers approached. 80%	• Poor memory and vision • Dependence on caregiver • Caregivers non-dependence on elders <u>Overall & verbal abuse</u>: • Elders advanced age • Poor memory and vision • Chronic			• Under-reporting especially when the perpetrator is a close relative like a child. • Recall bias • Generaliz-ability lacking as data comes from a relatively healthy/ active

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				via self construced questions • Assessment of physical & cognitive function via a proxy indicator of presence of chronic illness for physical funcitno, and a self constructed 4 scale measurement for cognition which had ICC of 0.89.	of those approached agreed.	illness • Dependence on caregiver <u>Physical abuse:</u> • Elder poor memory • Dependency on caregiver • Caregivers nondependence on elder • Living with caregiver <u>Violation of personal rights:</u> •Elder advanced age •Poor memory •living with caregiver •dependence on caregiver			elder subset. Study concentrated on elder, not the abuser.
16	E. Yan and Tang (2001, Hong Kong, China)	• Overall abuse, 21.4% • Verbal, 20.8% • Physical & social, 2-5%.	Cross-sectional study design. Five of eight community centers for the elderly that responded out of 15 approached consented to elders participation.	• Abuse assessed by the revised Conflict Tactics Scales (CTS2), the Chinese version having good internal reliability with α 0.79 for physical abuse & 0.86 for verbal	Elders living in Hong Kong, aged 60 years and above. Age 60 taken as it is the official retirement age. 355 elders took part in the study. 2 of every 10 elders refused to	• Dependency of elders on caregivers, usually adult children. • Psychological distress, anxiety, & social dysfunction associated with elder abuse, especially verbal &	Abuse is not associated with caregiver dependency on elders but rather elders dependency on caregivers. Elder abuse has negative mental health	Prevalence of elder abuse much higher than western countries mainly due to the verbal abuse component while physical abuse is largely similar to other countries.	• Under estimation • Self reporting and recall bias. • Non-random and relatively healthy elder community sample used,

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			Questionnaires administered orally and completed by trained research assistants, taking about 30 mins each.	abuse • Demographic variables collected on six items. • Mental health assessed by the General Health Questionnaire (GHQ) which has 28 items, the Chinse translation having good internal reliability of 0.88. • Dependence assessed by a self-constructed 4-item participant-caregiver dependence scale. Internal consistency adequate, α 0.63.	participate citing tiredness or lack of time. Elders were approached individually in housing areas, or via various activities conducted by local community centres, but characteristics of both groups were similar.	physical abuse. • Depression associated with physical and verbal abuse.	consequences on victims. Verbal abuse is the best predictor of elder psychological distress. Participants dependency is associated with poor mental health but not as much as verbal & physical abuse.		so generalisability of findings is poor. • Only verbal, physical & social abuse studied. Cross sectional study design only permits an association to be remarked upon. • Cross-cultural validity of the CTS2 scales.
17	Chokkanathan, Lee (2006, India)	Overall abuse, 14%. • Chronic verbal abuse 10.8% • Financial abuse • Physical abuse 4.3%	Cross-sectional study design. One division in Chennai town was randomly chosen. One residential area with varying socio-economic strata then	• Elder mistreatment taken to include both abuse & neglect. Elder abuse defined by the Action of Elder Abuse in the UK, 1995	400 community dwelling cognitively normal elders aged 65 years or more in Chennai, India.	• Gender (females > males) • Social support • Family income • Physical health (subjectively rated)	50% experienced one type of abuse, 30.4% 2 types, 16.1% 3 types 3.6% all 4 types	Prevalence higher than in western countries but lower than in Hong Kong or even rural India. Elder abuse 14% compared to spousal abuse 20-75% in India.	Cross-sectional study only permits only an association to be remarked upon • Generalisability lacking as it cannot be

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		• Neglect 4.3%	purposively chosen. Based on the electoral list, random selection of 500 elders was done. Researcher administered interviews were then conducted with 400 of the 500 elders, after excluding those who had moved, were not contactable, or who were cognitively impaired as found by the ECAQ.	while chronic verbal abuse & neglect as per Pillemer & Finkelhor, 1988. • Cognition assessed by the Elderly Cognitive Assessment Questionnaire (ECAQ) (4 out of 10 positive to be included) • Abuse/neglect assessed by the CTS, having 0.94 internal reliability. • Social support assessed by the Medical Outcomes Study Social Support Survey, with 0.95 internal reliability. • CES-D, a self-report scale, used to assess depression. Internal reliability 0.86. • Disability assessed by the Katz Index. • Life		• Living arrangement		India has a unique marital problem solution where the wife's family intervenes and may cause the husband to abuse his in-laws in future. India's dowry system may cause the son-in law to abuse the in laws if dowry is inadequate.	applied to adults with cognitive decline, institutionalized elders, and rural dwelling elders. • Only physical, verbal, financial abuse and neglect studied. Social abuse, sexual abuse and self-neglect were not studied.

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				Satisfaction Index with 0.87 internal reliability					
18	Kivelä SL et al (1992, Finland)	Overall abuse, 6.7% but 5.4% after excluding institutional abuse & abuse by strangers.	Cross-sectional study design. Mailed questionnaires, interviews & clinical assessments were used. Questionnaires were sent out two weeks before interview & examination by a general practitioner and a nurse, either in a health centre or in elders homes, or long term care institutions if based there.	• Dyadic adjustment scale (DAS) & the Family Apgar Scale to assess marital adjustment & family relations. • Clinical examination for depression by a semi-structured interview using the Hamilton Rating Scale for Depression , and DSM-III criteria by the American Psychiatric Association. • Cognitive function assessed by Wilson & Brass scale. • Life events in the past 5 years assessed using the Tennant &	1086 of 1225 elders aged 65 years or more in a semi-rural Finnish community, born in 1923 or earlier. Those who died, were not reachable, refused participation or suffered from dementia were not included.	<u>Elders:</u> a.Health behaviour & functional capacity: • Smoking in males • Poor health • Depression in women • Somatic/ psychosomatic symptoms in women b.Life satisfaction & social participation. • Low degree of satisfaction with lives • Lack of respect towards elderly • Loneliness • Lack of confidant c. Life events • higher number of life events in the past 5 years.		Prevalence recognized as likely to be underestimated however quite similar to that in the USA, Sweden, & Denmark assessed by similar methods	Self-reported measure of abuse Lack of generalizability to entire population.

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				Andrews scale (modified).		d.Marital adjustment & family relations • low marital adjustment for women • poor family relations			
19	Fulmer et al (2000, USA)	Prevalence 12.3%, but 3.6% after excluding 'apprehensive' from the definition, and 1.1% upon exclusion of 'apprehensive' & 'frightened'	Cross-sectional study design. Simple random sampling of Adult Day Health Centre (ADHC) programs in New York State, followed by all elders attending the ADHC during a two week period. Study conducted within a larger one on adult day care, from all New York State medical model ADHC programs, elders eligible if they require 3 hours minimum of health care at least 1 day a week. Social worker administered	• Social Worker Informant Iinterview to assess elder abuse signs and symptoms, both physical and behavioural, was taken to be representative of elder mistreatment problems and therefore not considered as a comprehensive screening. • INCARE Cognitive Screening Measure including Mini Mental State Examination (MMSE) to assess elders cognitive	336 of 360 eligible elders attending ADHC programs in New York participated.	• Disordered behaviour • Cognitive decline			Lack of pre-testing of questionnaire. Self-reporting bias Prevalence is only for physical & behavioural abuse.

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			questionnaire.	status, 24/30 taken as cognitively normal.					
20	Acierno et al (2010, USA)	Overall abuse, 11.4% • Physical 1.6% • Sexual 0.6% • Emotional 4.6% • Financial 5.2% • Potential neglect 5.1%	Cross-sectional study design. Stratified random-digit-telephone-dialing done in an area identified through probability sampling from census, with continental USA as the sampling location. Standardised computer dialing of elders with telephone interviews.	Not shown	A nation-wide sample of 5777 community - dwelling adults aged 60 years or more	• Low income of less than $35000 per year collectively for all members of the household • employment status • health status • stress • anxiety • previous traumatic events • social services usage • social support • requiring assistance with ADLs	Correlates of each form of mistreatment: Emotional abuse: Lower age, experience of a previous traumatic employment,, low social support Physical abuse: lower age, low social support Sexual abuse: low social support , previous experience of traumatic events Potential neglect: low income, minority racial status, poor health, & low social	Poor social support is consistent with all types of mistreatment. It may lead to or result from elder mistreatment, thus indicating & predicting elder abuse. Functional impairment in elders was associated with financial and emotional mistreatment only Mistreatment events were assessed alone; independent of perpetrator status, giving a more accurate prevalence estimate. Young-old subjects (aged less than 70 years) were more likely than	Limitations: • Sexual abuse & neglect not covered • Only 1 question asked to detect and assess each subtype of abuse • Person answering the telephone in random digit dialing survey was not necessarily the elder interviewed. • Lack of generalisability of findings as those elders with good cognitive

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							support. <u>Financial abuse:</u> Non-use of social services & ADL dependence	those in the old-old group to be abused.	function only were chosen to participate in the study • Under estimate due to self-report of abuse by elders.
21	Dong XQ et al (2010, China)	Not available	Cross-sectional study design. Elders attending 4 different clinics in a hospital were approached by research assistants fluent in both Mandarin & the local dialect & given a self-administered questionnaire which had been translated to basic simple Chinese.	• Modified Vulnerability to Abuse Screening Scale (VASS) with good validity and moderate to good reliability (α 0.31-0.74) • Katz Index of ADL to assess physical function showed good reliability of 0.85 • IADL in categorical format also assessed physical function, showed good reliability of 0.87. • Geriatric Depression Scale (GDS) to measure depression • Lonelines s assessed via a	412 elders aged 60 years or more attending a medical center in Nanjing, China. 500 elders approached but some not chosen due to cognitive decline or lack of consent.	• Age • Gender • Education level • Monthly income • Self-reported medical illness • Loneliness • Social support	Physical impairment is not associated with elder mistreatment after taking into account confounders. Among IADL, only eating impairment was found to be associated with elder mistreatment	.	Lack of generalisability as only elders with good cognitive function were included. Recruitment was done in a hospital clinic setting, and the questionnaire depended on elder self-reporting. No measure of caregiver function

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				validated three-question survey, from the Revised-University of California at Los Angeles Loneliness Scale. • Social support assessed by a validated social support instrument					
22	Puchkov PV et al (2006, Russia)	Overall abuse, 28.63%	Cross-sectional study design. Four Russian centres for social service of the population CSSP) in the Kirov, Frunze, Volzhsk and Engels districts of the Saratov oblast were chosen. Elders chosen filled in questionnaire themselves, unless they were unable to for clinical reasons, who were then interviewed.	Questionnaire not shown, nor definitions of abuse.	Elders aged 60 or older and were on the CSSPs' books, involving 2,460 elderly women and 421 elderly men, making up 85.38% & 14.62% of the respondents respectively. All subjects were divided into 8 groups according to number of subjects who were subjected or weren't to abuse, age, sex, number of subjects who lived alone with no relatives, lived alone but had relatives or friends, the	• age, • sex, • health status, • experience of previous abuse, • stress • relationship to abuser • possible causes for abuse (respondent's opinion on which aspects generated abuse ie society, imperfect laws, complicated socialeconomic situation in the country, genetic heredity, alcoholism, drug habit)	Most common forms are: Psychological & Emotional abuse		• Lack of generalis-ability as participants were not as healthy as their counterparts. • Rando mization not described in methodology.

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					number who lived with family member or friends, and those who witnessed or did not witness abuse.				
23	Kissal et al (2011, Turkey)	Overall abuse, 13.3% • Psycholo-gical 9.4% • Neglect 8.2% • Physical 4.2% • Financial 2.1% • Sexual 0.9%	Descriptive cross-sectional study. Probability sampling to obtain a sample size of 331 subjects.	Standardized Mini Mental State Examination (SMMSE) used to identify individuals with cognitive disorders. Only those scoring 24 or more were administered a semi-structured questionnaire. The Katz Index of Independence in Activities of Daily Living (ADL) to assess dependence levels.	331 of 2409 elders aged 65 years or more living within the community in Izmir, Turkey accessible to a primary health care center were selected.	• low education levels • female sex • living with spouses and children • stress • poorer perception of familial relationships	Odds ratios show that : • Women are 3.36 times more likely to be abused than men • Elders with lower educational levels are 2.43 times more likely to be abused • Living with spouses/children increases the likelihood of abuse 3.94 times • Poor family relationships are 8.72 times more likely for abuse		• Under estimation due to recall bias and self-reporting • Caregiver characteristics not studied • Lack of generalisability to entire population as only included elders living with family at home
24	Iecovich, Lankri and	Incidence of elder abuse and	Cross-sectional study design	Not shown.	24,200 Jewish elders living in	<u>Elder:</u> • Age	Prior poor relationships	<u>Interventions:</u> • Institutionaliza-	Underreporting

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	Drori (2004, Israel)	neglect, 0.5% • Physical 11.7% • Mental 10.8% • Economic 7.5% • Neglect 3.3 • Sexual 0.8%	conducted by social workers from the Social Services department. Elders attended meeting sessions with health care workers, whereby a structured presentation followed by a discussion was carried out. Elders thought to be at risk were identified by health care workers who completed a short questionnaire. Trained social workers then screened these and conducted face-to-face interviews at selected elders homes, leading to further intervention.		Beer-Sheva, the capital city of Negev in the Southern District of Israel.	• Female sex • Ethnicity • Marital status • Number of children • Education • Functional status • Living arrangements • Stress <u>Caregiver:</u> • Alcohol abuse • Drug abuse • Economic problems • Unemployment • Mental illness • Problematic family relationship	between the victim & abuser, especially when the victim is mentally or physically disabled and lives with the perpetrator, who may also have personal problems.	tion • Medical therapy • Social services • Police involvement • Court intervention	
25	Chompunud et al (2010, Thailand)	Overall abuse, 14.6% • Psychologi-cal 41.18%	Descriptive cross-sectional case comparison study design. Survey conducted	• Demograp hic questionnaire (DQ) • Chula	233 of 240 elders in metropolitan Bangkok, Thailand who are 60 years or more,	• Gender • Adequacy of income • Perceptions on			• Under-estimation of prevalence due to recall bias, self-

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		• Financial 20.59% • Physical 2.94% • Neglect 2.94% • Mixed 32.75%	by means of an interview administered to elders. A household door-to-door recruitment drive was undertaken by the researchers in the selected areas, either in community centres or elders homes.	mental test (CMT)- Thai standardized version • Diagnostic criteria for elder abuse (DCEA) with content validity of 0.97 • Interview guideline for screening of elder abuse (IGSEA) with CVI 0.92 • Barthel ADL index (BADLI) –Thai standardized version • Elder's behaviour assessment (EBA) with CVI of 0.88 • Family member at risk questionnaire (FMRAQ) with CVI 0.87 • Family relationship scale (FRS) Pilot study undertaken before actual study.	living within five randomly selected districts, literate in Thai, and not cognitively impaired were chosen	health • Health status • Family members mental health • Relationship issues			reporting • Lack of generalis-ability to entire population

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26	Cooper C et al (2006, Europe)	Overall abuse, 5%	Cross-sectional study design. 405 subjects in each of 11 areas. If more eligibile people were identified, randomization was done via computer for selection. Interviews conducted by home care agencies trained personnel or research assistants with subjects alone. Caregivers also asked about elders behavioural patterns like wandering etc.	Inter-RAI Version 2.0 Minimum Dataset Homecare (MDS-HC), a validated, structured instrument which was translated, backtranslated & examined for face validity in various languages used. MDS-Cognitive Performance Scale (MDS-CPS) Mean MMSE Behavioural Scale by caregivers on elders, validated Known delirium in the past 7 days MDS-Depression Rating Scale Score (DRS) (validated) MDS Activities of Daily Living Hierarchy (MDS-ADL) MDS-Instrumental Activies of Daily Living (MDS-IADL)	Elders aged 65 years or more from 11 European countries (Germany, France, Italy, Sweden, Norway, Iceland, Denmark, Finland, Czech Republic, UK & Netherlands) who receive health or social care services in one of the study areas.	• Cognitive impairment severity • Depression • Delusions • Pressure ulcers • Actively resisting care • Conflict with family or friends • Living in Italy or Germany • Living alone • Poor social interaction • Medication • Psychiatric morbidity • Alcohol misuse • Service receipt • Social functioning	Screening showed that 179 elders assessed had at least 1 indicator of abuse i.e. • Fearful of a family member/care giver • Unusually poor hygiene • Unexplained injuries, broken bones, or burns • Neglected, abused or mistreated • Physically restrained 67% of abused elders also had dementia, with severe dementia having highest rates of abuse	Cognitive impairment is 1.4 times more likely to result in abuse, depression 1.9 times, residing in Italy 1.2 times, residing in Germany 1.3 times, having delusions 2.3 times, resisting care 2.3 times, having a pressure ulcer 2.2 times, expressing conflict with family or friends 2.2 times.	• Refusal to participate as 'did not want to be troubled' • Recall bias • Unwilling to report about caregiver • Only elders receiving health and social care because of isolation • Self-reporting by elders • Interviewer bias • Prevalence rates not shown in detail for each country in the study

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							especially physical abuse. Those with mild dementia are more susceptible to neglect.		
27	Naughton et al (2012, Ireland)	Overall abuse, 2.2% • Financial, 1.3% • Psychological, 1.2% • Physical, 0.5% • Sexual, 0.05% • Neglect 0.3% • Interpersonal, 1.3% • Any abuse 2.2%	Cross-sectional study design. Multi-stage cluster, defined by electoral division wth random probability sampling, controlled for age and gender. After the country was stratified into 7 regions, 150 such clusters were chosen. Proportional population sampling method employed according to the number of elders in each region. Fact-to-face interviews with the elder in private at home, with no proxies used.	Elder abuse defined by the WHO and its 5 subcategories. Revised Conflict Tactics Scale adopted to measure psychological, physical and sexual abuse. Financial abuse and neglect definitions operationalised such that results to be comparable to various studies conducted in the USA and UK. Short Form 8 (SF-8) for socioeconomic and health information Oslo-3 Social Support Scale	2000 elders aged 65 years or more in Ireland. Elders chosen are community dwelling, including sheltered accommodation and having good cognition, subjectively rated during the interview session. Those living in residential care or not English speaking were excluded. From 2,447 eligible elders, 2,021 were interviewed. 1% of those selected were dropped due to poor cognition and there was a 2% refusal rate	Elder: • Mental illness • Poor social support Abuser: • Adult children of elder • Cohabitation • Unemployment • Addiction to alcohol • Physical health problems • Mental health problems • Intellectual disability	Odds ratios show that poor elder mental health increases outcome of abuse by 4.51 times and having poor social support increases abuse likelihood by 3.11 times.	Abuse had a serious impact on the elders well-being . Most had not disclosed abuse to anyone, some approached another family member and a few went to the doctor or police. In a quarter of cases, abuse was ongoing at the surveyed time. Interventions commonly reported was having another family member to speak to the abuser, or severing contact with the abuser. Professional intervention was minimal.	• Recall bias • Self-reporting by elders • Interviewer bias • Under-estimate especially since elders with poor cognition or physical health were not represented • Sample size underpowered but this allowed more detailed study of individual risk factors

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					due to poor physical health.				
28	Wu L et al (2012, China)	Overall abuse, 36.2% • Psycholo-gical 27.3% • Neglect 15.8% • Physical 4.9% • Financial 2.0%	Cross-sectional survey in 3 rural communities involving adults 60 years or older via structured questionnaire administered via interview at home	Elder abuse by items selected and modified from the Hwalek-Sengstock Elder Abuse Screening Test and the Vulnerability to Abuse Screening Scale. Depression by GDS-15	Two stage cluster sampling done in which 3 of 19 districts chosen first, then 17 villages from 34 villages totally. 2039 elders interviewed in November 2010	Widowed, divorced, single, or separated Having chronic disease Living alone Depending on self-made income Depression Labour-intensive job Male Physical disability			• Lack generalisability • Lack causality • Self-report bias • Abusers not included • Under-estimation
29	Pershevska et al (2014, Macedonia)	• Psychological 25.7% • Financial 12.0% • Neglect 6.6% • Physical 5.7% • Physical injury 3.1% • Sexual 1.3% (females)	Cross-sectional study in all 8 regions involving 960 elders using structured questionnaire administered via face-to-face interview at home, elders from various regions chosen via stratified random sampling	Elder abuse (in past 12 months) based on: • ABUEL survey (Abuse of Elderly in Europe) a multinational prevalence survey, in Germany,Greece, Lithuania, Italy, Portugal, Spain, Sweden • AVOW (Prevalence study of abuse and violence against older women) a multicultural survey in Austria, Belgium,	Quota stratified sampling employed to obtain 960 participants aged 65 years or more from all regions, interviewed from December 2011 to February 2012	<u>Relationship level:</u> Cohabiting with close relative Living with partner Completely dissatisfied with household income Less equipped household facilities <u>House ownership:</u> Not owning house <u>Societal level:</u> Northeast, southeast and Polog area of country			• Sexual abuse only among females • Questions used not shown • Excluded vulnerable elders ie those with dementia, hospitalised and institutionalised elders

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
				Lithuania, Finland, and Portugal Cognitive impairment via MMSE					
30	DeLiema et al (2012, USA)	• Overall 40.4% • Psychological 24.8% • Financial 16.7% • Neglect 11.7% • Physical 10.7% Sexual 9.0%	Cross-sectional study design. Community based face-to-face interview with elder person by trained promotores, local Spanish-speaking Latinos, to interview the Latino target population sampled from low income, ethnic Latino minority neighbourhoods in Los Angeles, California. Residents chosen to be representative of blocks and areas.	Elder abuse in past one year based on 63-item abuse instrument developed from the University of Southern California Older Adult Conflict Scale (USC-OACS), including questions derived from the Revised Conflict Tactics Scales (CTS2 and CTSPC) and the Conflict Tactics Scales for Older Adults. 5 questions from UCLA Loneliness Scale Needs-based physical impairment derived from 6 ADL and 6 IADL	Elderly Latino subjects 66 years or more, chosen from selected minority neighbourhoods in Los Angeles, California	Combined conflict domain(physical/sexual/psychological): • Lower age group of elders • Higher education • Functional impairment • History of prior physical/ sexual abuse Financial abuse: • Lived longer in the USA • Prior abuse • Younger age group Neglect: • Lived longer in the USA			• Specific to the Latino immigrant population in LA, California • Exluded elders with cognitive impairment
31	Ergin et al (2012, Turkey)	• Overall 14.2%	Cross-sectional population based	Elder abuse: Own questions.	756 elders aged 65 years or more	Psychological abuse: Low morale status	Suggestions from elders	No law against elder abuse in Turkey	• Perpetrators characteristics

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
		• Psychological 8.1% • Neglect 7.6% • Financial 3.5% • Physical 2.9% • Sexual 0.4%	study utilizing based face-to-face interview with elder person at home.	Definitions employed: Physical abuse: the use of physical force that may result in bodily injury, impairment or physical pain Psychological abuse: the infliction of pain, anguish or distress through verbal or nonverbal acts. Sexual abuse: non-consensual sexual contact of any kind. Economic abuse: the illegal or improper use of an elder's funds, property, or asssets Diener's Satisfation with Life Scale Philadelphia Geriatric Center Morale Scale-PGCMS Jehoel-Gijsbers & Vrooman's Social Exclusion Scale Katz ADL for functional impairment & dependency	interviewed after selection of neghbourhoods in various regions of the city center, without communication problems, dementia or schizophrenia, severe visual or hearing losses, Alzheimer's disease, and able to converse in Turkish.	Social exclusion Neglect: Low morale status Social exclusion	included that the government should take more interest in elder care, younger people to be more caring towards elders. A minority mentioned that nursing homes should be provided by the state.		not studied • Self-reporting by participants • Elders with cognitive impairment were excluded • Findings not generalizable to populations elsewhere like rural areas as this study was done in the city center
32	Gil et al (2015, Portugal)	• Overall 12.3%	Cross-sectional study employing	An operational framework	1,123 elders aged 60 years or more,	Age Education	2.4% encountered		• Self-reported hence

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
		• Psychological 6.3% • Financial 6.3% • Physical 2.4% • Neglect 0.4% • Sexual 0.2%	computer assisted telephone interviewing techniques to interview 1,123 elders chosen from a probability sample that was nationally representative, taking into consideration both fixed lines and mobile phones.	developed based on actions described in the Portuguese Penal Code, besides the operational concepts used in previous studies in Ireland, UK and USA. Qualitative methods used to further refine the questionnaire to match the Portuguese penal code.	interviewed during September and October 2012	Functional status in terms of dependency on others for ADL	multiple types of abuse 27.9% had encountered more than once of a type of abusive behavioiur 6.0% of respondents knew of someone who had been abused before		underestimation • Selection bias via exclusion of those who did not have access to telephones • Statistical analysis of all subtypes of abuse not possible due to low prevalence rates of sexual and physical abuse • Reliability and validity of questionnaire not mentioned
33	Biggs et al (2009)	• Overall 2.6% • Neglect 1.1% • Financial 0.6% • Psychological 0.4% • Physical 0.4% • Sexual 0.2%	Cross-sectional study design employing Computer Assisted Personal Inerview and Computer Assisted Self Interview with face-to-face interview of elder at their home by researcher.	WHO framework built upon with the definitions employed in previous research of Comijs (1998), Pileemer (1988) and Podnieks (1990). Defnitions: One or more instances of physical, sexual, financial in the past year, or ten instances of psychological	2,111 elders aged 66 or more interviewed in the 4 countries of the UK, elders chosen so as to be nationally representative of the population, during March to Sept 2006	Poorer health Lower quality of life Social isolation (loneliness) Depression	Perpetrator usually a family member (51%)		• No reliability or validity analysis mentioned • Wales sample was chosen differently from other 3 countries due to lack of a nationally representative sample

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
				abuses in the past year, or ten instances of psychological abuse in the past year, or unless <10 if considered severe					
34	Burnes et al (2015	• Overall 4.6% • Emotional 1.9% • Physical 1.8% • Neglect 1.8%	Random-digit-dial stratified sampling method based on census data to perform telephone interviews	Modified version of CTS for physical and emotional abuse. More than 10 times in the past 12 months or very serious in nature for emotional abuse, except the threat of throwing an item or hitting which was any one time in the past 12 months, and physical abuse which was any one time in the past 12 months. Duke Older Americans Resources and Services (OARS) ADL and IADL scales for neglect, if needs unmet by caregiver 2-10 times in last 12 months.	Elders, or proxy for those with physical, language or communica-tion barriers	Emotional abuse: <u>Risk factors</u> Separated/divorced Lower income <u>Protective factors</u> Greater functional capacity Middle-old age Oldest old Lower level education Physical abuse: <u>Risk factors</u> Separated/divorced Lower income <u>Protective factors</u> Greater functional capacity Middle-old age Oldest-old Less education Neglect: Risk factors Poorer health Separated/divorced Poverty Protective factors Oldest-old	Emotional and physical abuse: Spouse/partner most commonly the perpetrator Neglect: Adult child, home-care based attendant usually was perpetrator	Similar factors associated with physical and emotional abuse (usually overt acts of abuse) but not neglect (usually acts of omission in nature i.e. failure to perform various caregiving roles)	• Self-reported hence underestimation • Elders with cognitive impairment excluded • Previously recognised important risk factors were not include in the study such as history of previous trauma, mental health, cognitive function, social support • Selection bias from telephone recruitment would exclude elders without a fixed line or cellular line • Selection bias

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No.	Study (Year, Location)	Prevalence estimates of elder abuse	Methodology	Definition/ Measurement tool	Study sample & characteristics	Exposure/ associated factors	Other outcome measures	General comments	Miscellanous/ Limitations
						Hispanic elders			in that only English or Spanish speaking elders chosen • Self-neglect not included • Findings generalizable to New York State alone

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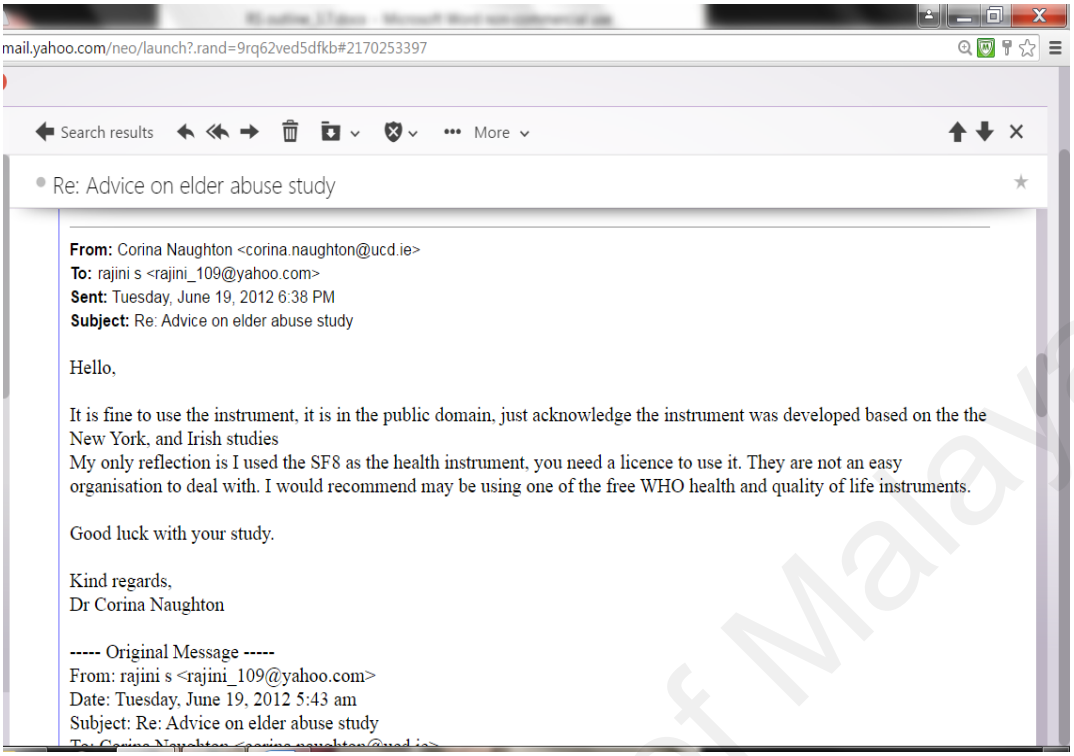
Appendix D: Permission to use questionnaire from Irish National Prevalence Study



mail.yahoo.com/neo/launch?.rand=9rq62ved5dfkb#2170253397

Search results More

Re: Advice on elder abuse study

From: Corina Naughton <corina.naughton@ucd.ie>
To: rajini s <rajini_109@yahoo.com>
Sent: Tuesday, June 19, 2012 6:38 PM
Subject: Re: Advice on elder abuse study

Hello,

It is fine to use the instrument, it is in the public domain, just acknowledge the instrument was developed based on the the New York, and Irish studies
My only reflection is I used the SF8 as the health instrument, you need a licence to use it. They are not an easy organisation to deal with. I would recommend may be using one of the free WHO health and quality of life instruments.

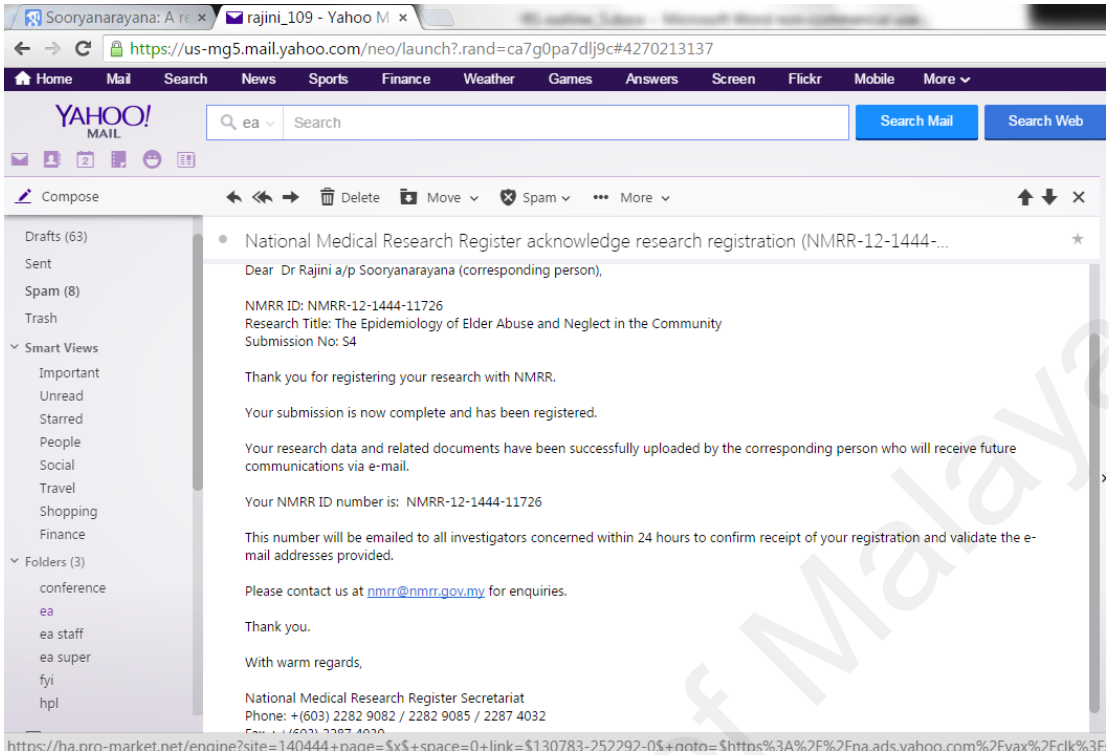
Good luck with your study.

Kind regards,
Dr Corina Naughton

----- Original Message -----
From: rajini s <rajini_109@yahoo.com>
Date: Tuesday, June 19, 2012 5:43 am
Subject: Re: Advice on elder abuse study

University of Malaya

Appendix E: National Medical Research Registry registration of study



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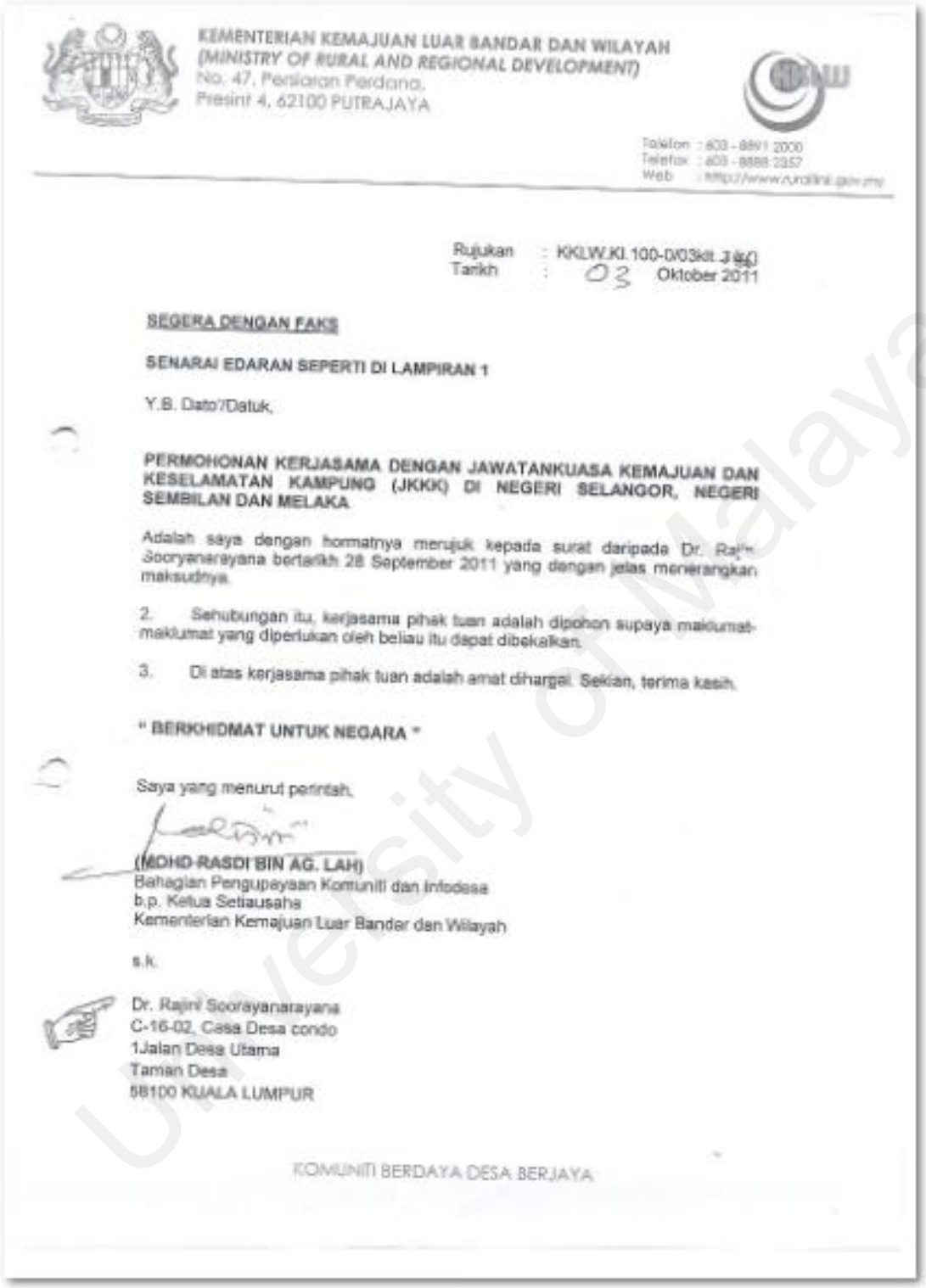
Appendix F: Application for Village Safety and Development committees' database from Ministry of Rural and Regional Development



KEMENTERIAN KEMAJUAN LUAR BANDAR DAN WILAYAH
(MINISTRY OF RURAL AND REGIONAL DEVELOPMENT)
No. 47, Persiaran Perdana,
Presint 4, 62100 PUTRAJAYA

Telefon : 603 - 8891 2000
Telefax : 603 - 8888 2357
Web : http://www.kklw.gov.my

Rujukan : KKLW.KI.100-0/03klt.3 (4)
Tarikh : 03 Oktober 2011

SEGERA DENGAN FAKS

SENARAI EDARAN SEPERTI DI LAMPIRAN 1

Y.B. Dato'/Datuk,

PERMOHONAN KERJASAMA DENGAN JAWATANKUASA KEMAJUAN DAN KESELAMATAN KAMPUNG (JKKK) DI NEGERI SELANGOR, NEGERI SEMBILAN DAN MELAKA

Adalah saya dengan hormatnya merujuk kepada surat daripada Dr. Rajini Sooryanarayana bertarikh 28 September 2011 yang dengan jelas menerangkan maksudnya.

2. Sehubungan itu, kerjasama pihak tuan adalah dipohon supaya maklumat-maklumat yang diperlukan oleh beliau itu dapat dibekalkan.

3. Di atas kerjasama pihak tuan adalah amat dihargai. Sekian, terima kasih.

" BERKHIDMAT UNTUK NEGARA "

Saya yang menurut perintah,

(MOHD RASDI BIN AG. LAH)
Bahagian Pengupayaan Komuniti dan Infodesa
b.p. Ketua Setiausaha
Kementerian Kemajuan Luar Bandar dan Wilayah

s.k.

Dr. Rajini Sooryanarayana
C-16-02, Casa Desa condo
1Jalan Desa Utama
Taman Desa
58100 KUALA LUMPUR

KOMUNITI BERDAYA DESA BERJAYA

University of Malaya

LAMPIRAN 1

SENARAI EDARAN

Pengarah Pembangunan Negeri
Pejabat Pembangunan Persekutuan Negeri Selangor
Unit Penyelarasan Pelaksanaan
Jabatan Perdana Menteri
Aras 1, Bangunan Pilecon Engineering Berhad
No. 2, Jalan U1/26 Seksyen U1, Hicom Glenmarie
Industrial Park
40150 SHAH ALAM, SELANGOR

No. Tel : 03-78849201
No. Faks : 03-78807571

Setiausaha Kerajaan Negeri Melaka
Pejabat Setiausaha Kerajaan Negeri Melaka
Jabatan Ketua Menteri Melaka
Aras 4 (Suite), Blok Temenggong
Kompleks Seri Negeri
Hang Tuah Jaya
75450 AYER KEROH, MELAKA

No. Tel : 06-2307211
No. Faks : 06-2328350

Setiausaha Kerajaan Negeri Sembilan
Pejabat Setiausaha Kerajaan Negeri Sembilan
Tingkat 5, Blok A, Wisma Negeri
Jalan Dato' Abdul Malek
70503 SEREMBAN, NEGERI SEMBILAN

No. Tel : 06 – 7632041
No. Faks : 06 – 7673728

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UNIVERSITI MALAYA

يونيورسيتي مالايا

28 September 2011

Setiausaha Bahagian
Bahagian Pengupayaan Komuniti dan Infodesa
Kementerian Kemajuan Luar Bandar dan Wilayah
Aras 2D, No. 47, Perdana Perdana,
Presint 4, Pusat Pentadbiran Kerajaan Persekutuan,
62100 Putrajaya

Melalui:

Dr Noran Naqiah bt. Mohd Hairi
Ketua Unit Pascaijazah serta penyelia kedua calon
Jabatan Perubatan Pencegahan dan Kemasyarakatan
Fakulti Perubatan
Universiti Malaya
50603 Kuala Lumpur

Dr. Noran Naqiah Mohd Hairi
Penyelia
Jabatan Perubatan Kemasyarakatan
dan Pencegahan
Fakulti Perubatan
Universiti Malaya
50603 Kuala Lumpur

Tuan,

PERMOHONAN KERJASAMA DENGAN JAWATANKUASA KEMAJUAN DAN KESELAMATAN KAMPUNG (JKKK) DI NEGERI SELANGOR, NEGERI SEMBILAN DAN MELAKA

Saya adalah pelajar pasgraduan di bidang Kesihatan Awam, Universiti Malaya yang sebelum ini menjalankan tugas di Kementerian Kesihatan Malaysia.

2. Bidang penyelidikan saya adalah berhubung kesihatan warga emas, khususnya penganiayaan dan penderaan terhadap kumpulan sesar ini. Bagi menjalankan penyelidikan di kalangan rakyat, saya ingin memohon kerjasama bahagian ini mengizinkan saya berhubung dengan Jawatankuasa Kemajuan dan Keselamatan Kampung (JKKK) bagi semua mukim dan daerah di negeri Selangor, Melaka dan Negeri Sembilan.

3. Kerjasama setiap JKKK yang dipilih bagi menggunakan senarai nama penduduk, khususnya warga emas akan memastikan saya dapat melakukan soal selidik yang tepat dan membawa faedah kepada kesejahteraan rakyat nanti. Dengan cara ini, tiada warga emas yang ketinggalan, berbanding sekiranya menghargakan warga emas yang berkunjung ke hospital atau klinik kerajaan sahaja.

4. Oleh itu saya berharap pihak tuan dapat melanjutkan senarai alamat dan nombor perhubungan setiap JKKK di negeri Selangor, Melaka dan Negeri Sembilan kepada saya bagi tujuan ini.

RECEIVED

JABATAN PERUBATAN KEMASYARAKATAN DAN PENCEGAHAN
FAKULTI PERUBATAN, UNIVERSITI MALAYA, 50603, KUALA LUMPUR, MALAYSIA
DEPARTMENT OF SOCIAL AND PREVENTIVE MEDICINE
FACULTY OF MEDICINE, UNIVERSITY OF MALAYA, 50603, KUALA LUMPUR, MALAYSIA
Tel: + 603-7967 4756 Fax: +603-7967 4975 e-mail: [illegible]
website: [illegible]

MS ISO 9001:2008 REG. NO. AR 1702

University of Malaya

Semoga mendapat kerjasama pihak tuan dan bahagian ini agar menjayakan penyelidikan ini yang membawa manfaat kepada warga emas kelak. Sebarang pendengan dan nasihat tuan adalah amat dihargai.

Sekian, terima kasih.

(DR. RAJINI SOORYANARAYANA)
C-16-02, Casa Desa Condo
1 Jalan Desa Utama
Taman Desa
58100 Kuala Lumpur

Tel : 012-4920960

Sk :

Dr. Maznah Dahlui
...atua Jabatan
Jabatan Perubatan Pencegahan dan Kemasyarakatan
Fakulti Perubatan
Universiti Malaya
50603 Kuala Lumpur

Dr. Claire Choo Wan Yuen
Penyelia pertama calon
Jabatan Perubatan Pencegahan dan Kemasyarakatan
Fakulti Perubatan
Universiti Malaya
50603 Kuala Lumpur

JABATAN PERUBATAN KEMASYARAKATAN DAN PENCEGAHAN
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Tel: +603-7967 4756 Fax: +603-7967 4975 e-mail: rpra@ummc.edu.my
website:www.ummc.edu.my/fom/dept/ppm/default.htm

FS ISO 9001:2000 REG. NO. AR 2760

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Appendix G: Internal consistency of tools used in validation phase

Table showing Item-Total Statistics for Cognition via ECAQ

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Memory - recall of number	7.42	2.785	.368	.213	.716
Memory - age	7.39	2.906	.307	.140	.724
Memory - birthday	7.53	2.357	.528	.340	.686
Orientation & info: day	7.45	2.725	.326	.165	.719
Orientation & info: date	7.60	2.324	.467	.261	.698
Orientation & info: month	7.45	2.534	.537	.343	.690
Orientation & info: year	7.57	2.240	.582	.400	.674
Orientation & info: location	7.43	2.764	.340	.162	.718
Orientation & info: job description	7.40	2.925	.227	.093	.730
Orientation & info: memory recall of number	8.01	2.405	.324	.116	.734

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Table showing Item-Total Statistics for Depression via GDS-15

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
GDS Q1 recoded, Satisfied with life	4.13	8.522	.364	.	.734
GDS Q5 recoded, Good spirits most of time	4.07	8.314	.391	.	.731
GDS Q7 recoded, Feel happy most of time	4.12	8.140	.537	.	.720
GDS Q11 recoded, Wonderful to be alive now	4.14	8.383	.457	.	.727
GDS Q13 recoded, Full of energy	4.00	8.006	.467	.	.723
Depression2:Dropped many activities and interests	3.75	8.325	.281	.	.743
Depression3:Feel life is empty	4.02	8.448	.297	.	.740
Depression4:Often get bored	3.94	8.227	.346	.	.735
Depression6:Afraid something bad is going to happen	3.95	8.319	.313	.	.739
Depression8:Often feel helpless	3.92	8.030	.416	.	.728
Depression9:Prefer to stay at home	3.79	8.710	.144	.	.758
Depression10:Feel have more problems with memory than most	3.84	8.346	.276	.	.743
Depression12:Feel pretty worthless	4.11	8.248	.464	.	.725
Depression14:Feel situation is hopeless	4.11	8.356	.423	.	.729
Depression15:Feel most people are better off than self	3.93	8.467	.250	.	.745

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Table showing Item-Total Statistics for physical and mental health composite scores of SF-12*v*2

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
QOL1 health status_Physical	40.84	61.731	.254	.179	.859
QOL limitation moderate activities eg sweeping gardening_Physical	41.34	60.124	.442	.460	.849
QOL3 climbing several flights stairs_Physical	41.41	59.815	.487	.477	.848
QOL4_accomplished less due to physical health_Physical	39.68	52.752	.693	.692	.831
QOL5 limited work due to physical health_Physical	39.79	52.853	.660	.669	.833
QOL accomplished less due to emotional problems_Mental	39.45	53.305	.744	.914	.829
QOL7 do work less carefully due to emotional problems_Mental	39.43	53.427	.731	.910	.829
QOL8 pain interfere with work_Physical	40.05	57.108	.331	.124	.862
QOL9 felt calm and peaceful_Mental	39.60	56.543	.520	.468	.844
QOL10 have a lot of energy_Mental	39.85	55.600	.546	.465	.842
QOL felt downhearted and depressed_Mental	39.64	55.270	.528	.394	.844
QOL12 physical or emotional problem interfere socially eg visiting friends and relatives_Physical	39.70	55.516	.483	.328	.847

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Table showing Item-Total Statistics for risk of social isolation via LSNS-6

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q33: Number of relatives meet or hear from at least once per month	11.84	33.262	.432	.377	.755
Q34: Number of relatives feel close to that can call them for help	12.23	31.636	.569	.511	.720
Q35: Number of relatives who are comfortable to talk with about personal matters	12.47	32.437	.539	.438	.729
Q36: Number of friends meet or hear from at least once per month	11.20	32.652	.419	.285	.760
Q37: Number of friends feel close to that can call them for help	12.33	29.595	.594	.562	.712
Q38: Number of friends who are comfortable to talk with about personal matters	12.71	31.836	.533	.490	.729

Table showing Item-Total Statistics for overall abuse

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Financial abuse scoring	7.93	.098	.397	.181	.444
Physical abuse scoring	7.89	.161	.332	.143	.477
Sexual abuse scoring	7.89	.171	.353	.131	.484
Psychological abuse scoring	7.92	.104	.496	.258	.331
Neglect scoring	7.88	.205	-.014	.000	.586

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Appendix H: Ethics committee approval

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RECEIVED 23 APR 2013

23 April 2013

The Dean
Cluster Health & Translational Medicine (HTM)
Level 7, Kompleks Pengurusan Penyelidikan & Inovasi
University of Malaya
50603 Kuala lumpur

Dear Professor,

Application for change of Study Location and Project Title

We hope that you will kindly allow us to change the study location and project title of project RG397/12HTM. Please refer table below for details of the project and the proposed change.

Items for change	Original, as in proposal	Proposed change
Project Title	The Epidemiology of Elder Abuse in the Community	The Epidemiology of Elder Abuse Among Rural Community Dwelling Elders in Negeri Sembilan, Malaysia, a Middle Income Developing Country
Study Location	Selangor	Negeri Sembilan

In order for this study to be truly effective with public health significance, it has to be conducted in a state such as Negeri Sembilan with comparatively more rural population than Selangor which is more suburban and urban than rural population. Hence the proposed change.

Accordingly, the title of the project to be amended to "The Epidemiology of Elder Abuse Among Rural Community Dwelling Elders in Negeri Sembilan, Malaysia, a Middle Income Developing Country"

The proposed change is merely logistics in terms of location. Patient safety and scientific aspects of this study are not affected. The house to house survey conducted by trained enumerators is still in place.

Thank you.

Yours sincerely,

Assoc. Professor Dr Noran Naqiah Hairi
Dept. of Social & Preventive Medicine

disokong dan dibenarkan

PROF. DR. ROSNINA YASMIN BT. DATO' OTHMAN
PEMANGKU DEKAN
Kluster Health & Translational Medicine (HTM)
Pejabat Kluster Penyelidikan
Universiti Malaya

Department of Social and Preventive Medicine, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, MALAYSIA
Tel: +60 3 7967 4756 / 7967 7547 · Fax : +60 3 7967 4975 · http://spm.um.edu.my/

University of Malaya

UNIVERSITY OF MALAYA

NORAN NAQIAH BINTI MOHD HAIRI <noran@um.edu.my>

Pemakluman Keputusan Etika Perubatan Bulan MEI 2013

2 messages

Mohd Izanie Che Yusoff <izanie@ummc.edu.my> Tue, Jun 25, 2013 at 11:51 AM
To: Noran Naqiah Mohd Hairi <noran@ummc.edu.my>

No. Rujukan: PPUM/QSU/300-04/11

25 Jun 2013

Prof. Madya Noran Naqiah Mohd Hairi
Jabatan Perubatan Kemasyarakatan & Pencegahan
Pusat Perubatan Universiti Malaya

Puan,

SURAT PEMAKLUMAN KEPUTUSAN PERMOHONAN MENJALANKAN PROJEK PENYELIDIKAN

Change of Title Study
The epidemiology of elder abuse in the community.

Protocol No: -

MEC Ref. No : 989.43

Dengan hormatnya saya merujuk kepada perkara di atas.

Bersama-sama ini dilampirkan surat pemakluman keputusan dan senarai ahli Jawatankuasa Etika Perubatan yang bermesyuarat pada 22 Mei 2013 untuk makluman dan tindakan puan selanjutnya.

2. Sila maklumkan kepada Jawatankuasa Etika Perubatan mengenai butiran kajian samada telah tamat atau diteruskan mengikut jangka masa kajian tersebut.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

Norashikin Mahmood
Setiausaha
Jawatankuasa Etika Perubatan
Pusat Perubatan Universiti Malaya

s.k : Ketua
Jabatan Perubatan Kemasyarakatan & Pencegahan

Surat ini adalah cetakan komputer dan tidak memerlukan tandatangan.

University of Malaya

UNIVERSITI MALAYA
PUSAT PERUBATAN UM

MEDICAL ETHICS COMMITTEE
UNIVERSITY MALAYA MEDICAL CENTRE
ADDRESS: LEMBAH PANTAI, 59100 KUALA LUMPUR, MALAYSIA
TELEPHONE: 03-79493209 / 2251 FAXIMILE: 03-79492030

NAME OF ETHICS COMMITTEE/IRB: Medical Ethics Committee, University Malaya Medical Centre **ADDRESS:** LEMBAH PANTAI 59100 KUALA LUMPUR	**ETHICS COMMITTEE/IRB REFERENCE NUMBER:** 989.43
PROTOCOL NO (if applicable): - **TITLE:** The epidemiology of elder abuse in the community	**VERSION NO.:** -
PRINCIPAL INVESTIGATOR: Assoc. Prof. Noran Naqiah Mohd Hairi	**SPONSOR:** -

The following item [✓] have been received and reviewed in connection with the above study to be conducted by the above investigator.

[✓] Application for Amendment/Information to Research Project (form)	Ver date: 12 Apr 13
[ ] Annual Study Report/Study Closure Report	Ver date:
[ ] Serious Adverse Event Report	Ver date:

Other documents:-
[✓] Change of Title Study

and the decision is [✓] :

[✓] Approved
[ ] Modification requested (item specified below or in accompanying letter)
[ ] Rejected (reasons specified below or in accompanying letter)
[ ] Noted

Comments:

Investigator are required to:

1) *follow instructions, guidelines and requirements of the Medical Ethics Committee.*
2) *report any protocol deviations/violations to Medical Ethics Committee.*
3) *provide annual and closure reports to the Medical Ethics Committee.*
4) *comply with International Conference on Harmonization – Guidelines for Good Clinical Practice (ICH-GCP) and the Declaration of Helsinki.*
5) *obtain permission from the Director of UMMC before starting research that involves recruitment of UMMC patients.*
6) *ensure that if the research is sponsored, the usage of consumable items and laboratory tests from UMMC services are not charged in the patient's hospital bills but are borne by the research grant.*
7) *note that he/she can appeal to the Chairman of MEC for studies that are rejected.*
8) *note that Medical Ethics Committee may audit the approved study.*
9) *ensure that the study does not take precedence over the safety of subjects.*

Date of approval : 13th MAY 2013
Date of notification: -

c.c Head
Department of Social & Preventive Medicine

Deputy Dean (Research)
Faculty of Medicine

Secretary
Medical Ethics Committee
University Malaya Medical Centre

.....
PROF. DATUK LOOI LAI MENG
Chairman
Medical Ethics Committee

University of Malaya

UNIVERSITI MALAYA
PUSAT PERUBATAN UM

MEDICAL ETHICS COMMITTEE
UNIVERSITY MALAYA MEDICAL CENTRE
ADDRESS: LEMBAH PANTAI, 59100 KUALA LUMPUR, MALAYSIA
TELEPHONE: 03-79493209 / 2251 FAXIMILE: 03-79492030

MEDICAL ETHICS COMMITTEE COMPOSITION, UNIVERSITY MALAYA MEDICAL CENTRE
Date: 22nd MAY 2013

Member (Title and Name)	Occupation (Designation)	Male/Female (M/F)	Tick (✓) if present when above items were reviewed
Chairperson: Y. Bhg. Prof. Datuk Looi Lai Meng	Senior Consultant (Distinguished Professor) Department of Pathology	Female	-
Deputy Chairperson: Prof. Kulenthran Arumugam	Senior Consultant Medical Education Research and Development Unit (MERDU)	Male	✓
Secretary (non-voting): Puan Norashikin Mahmood	Scientific Officer Department of Quality, UMMC	Female	✓
Members: 1. Y. Bhg. Prof. Dato' Patrick Tan Seow Koon	Deputy Director (Professional) University Malaya Medical Centre	Male	-
2. Prof. Philip Poi Jun Hua	Representative of Head Department of Medicine	Male	✓
3. Assoc. Prof. Mohamed Ibrahim Noordin	Head Department of Phamacy	Male	-
4. Assoc. Prof. Ahmad Hatim Sulaiman	Head Department of Psychological Medicine	Male	✓
5. Assoc. Prof. Alizan Abdul Khalil	Head Department of Surgery	Male	✓
6. Tuan Haji Amrahi Buang	Head of Pharmacist Department of Pharmacy University Malaya Medical Centre	Male	-
7. Y. Bhg. Assoc. Prof. Datin Grace Xavier	Representative of Dean (Research Fellow) Faculty of Law University Malaya	Female	✓
8. Y. Bhg. Datin Aminah bt. Pit Abdul Rahman	Public Representative	Female	✓
9. Madam Ong Eng Lee	Public Representative	Female	-

Comments: The MEC of University Malaya Medical Centre is operating according to ICH-GCP guidelines and the Declaration of Helsinki. Member's no. 7, 8 & 9 are representatives from Faculty of Law in the University Malaya and the public. They are independent of the hospital or trial site.

.....
PROF. DATUK LOOI LAI MENG
Chairman
Medical Ethics Committee

University of Malaya

UNIVERSITI MALAYA
PUSAT PERUBATAN UM

JAWATANKUASA ETIKA PERUBATAN
PUSAT PERUBATAN UNIVERSITI MALAYA
ALAMAT: LEMBAH PANTAI, 59100 KUALA LUMPUR, MALAYSIA
TELEFON: 03-79493209 FAKSIMILI: 03-79494638

No. Rujukan: PPUM/MDU/300/04/03

21 Februari 2012

Prof. Madya Noran Naqiah Mohd Hairi
Jabatan Perubatan Kemasyarakatan & Pencegahan
Pusat Perubatan Universiti Malaya

Puan,

SURAT PEMAKLUMAN KEPUTUSAN PERMOHONAN MENJALANKAN PROJEK PENYELIDIKAN
The epidemiology of elder abuse in the community
Protocol No : -
MEC Ref. No : 902.2

Dengan hormatnya saya merujuk kepada perkara di atas.

Bersama-sama ini dilampirkan surat pemakluman keputusan Jawatankuasa Etika Perubatan yang bermesyuarat pada 15 Februari 2012 untuk makluman dan tindakan puan selanjutnya.

2. Sila maklumkan kepada Jawatankuasa Etika Perubatan mengenai butiran kajian samada telah tamat atau diteruskan mengikut jangka masa kajian tersebut.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

Norashikin Mahmood
Setiausaha
Jawatankuasa Etika Perubatan
Pusat Perubatan Universiti Malaya

s.k Ketua
Jabatan Perubatan Kemasyarakatan & Pencegahan

JABATAN KUALTI
PUSAT PERUBATAN UNIVERSITI MALAYA
(University Malaya Medical Centre)
LEMBAH PANTAI, 59100 KUALA LUMPUR, MALAYSIA
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UNIVERSITI MALAYA

PUSAT PERUBATAN UM

MEDICAL ETHICS COMMITTEE
UNIVERSITY MALAYA MEDICAL CENTRE

ADDRESS: LEMBAH PANTAI, 59100 KUALA LUMPUR, MALAYSIA
TELEPHONE: 03-79493209 FAXIMILE: 03-79494638

NAME OF ETHICS COMMITTEE/IRB: Medical Ethics Committee, University Malaya Medical Centre **ADDRESS:** LEMBAH PANTAI 59100 KUALA LUMPUR	**ETHICS COMMITTEE/IRB REFERENCE NUMBER:** 902.2
PROTOCOL NO: **TITLE:** The epidemiology of elder abuse in the community	
PRINCIPAL INVESTIGATOR: Assoc. Prof. Noran Naqiah Mohd Hairi **TELEPHONE:** **KOMTEL:**	**SPONSOR:** UMRG

The following item [✓] have been received and reviewed in connection with the above study to be conducted by the above investigator.

[✓] Application Form	Ver date: 16 Jan 12
[✓] Study Protocol	Ver date:
[ ] Investigator Brochure	Ver date:
[✓] Patient Information Sheet	
[✓] Consent Form	
[ ] Questionnaire	
[✓] Investigator(s) CV's (Assoc. Prof. Noran Naqiah Mohd Hairi)	

and have been [✓]

[✓] Approved
[ ] Conditionally approved (identify item and specify modification below or in accompanying letter)
[ ] Rejected (identify item and specify reasons below or in accompanying letter)

Comments:

Investigator are required to:

1) *follow instructions, guidelines and requirements of the Medical Ethics Committee.*
2) *report any protocol deviations/violations to Medical Ethics Committee.*
3) *provide annual and closure report to the Medical Ethics Committee.*
4) *comply with International Conference on Harmonization – Guidelines for Good Clinical Practice (ICH-GCP) and Declaration of Helsinki.*
5) *note that Medical Ethics Committee may audit the approved study.*

Date of approval: 15th FEBRUARY 2012

c.c Head
Department of Social & Preventive Medicine

Deputy Dean (Research)
Faculty of Medicine

Secretary
Medical Ethics Committee
University Malaya Medical Centre

PROF. DATUK LOOT LAI MENG
Chairman
Medical Ethics Committee

University of Malaya

UNIVERSITI MALAYA
PUSAT PERUBATAN UM

MEDICAL ETHICS COMMITTEE
UNIVERSITY MALAYA MEDICAL CENTRE
ADDRESS: LEMBAH PANTAI, 59100 KUALA LUMPUR, MALAYSIA
TELEPHONE: 03-79493209 FAXIMILE: 03-79494638

MEDICAL ETHICS COMMITTEE COMPOSITION, UNIVERSITY MALAYA MEDICAL CENTRE
Date: 15th FEBRUARY 2012

Member (Title and Name)	Occupation (Designation)	Male/Female (M/F)	Tick (✓) if present when above items were reviewed
Chairperson: Y. Bhg. Prof. Datuk Looi Lai Meng	Senior Consultant Department of Pathology	Female	✓
Deputy Chairperson: Prof. Kulenthran Arumugam	Senior Consultant Medical Education Research and Development Unit (MERDU)	Male	
Secretary (non-voting): Cik Norashikin Mahmood	Scientific Officer Department of Quality	Female	✓
Members: 1. Y. Bhg. Prof. Dato' Patrick Tan Seow Koon	Deputy Director (Professional) University Malaya Medical Centre	Male	
2. Prof. Tan Chong Tin	Representative of Head Department of Medicine	Male	
3. Assoc. Prof. Stephen Thevananthan a/l Jambun	Representative of Head Department of Psychological Medicine	Male	✓
4. Assoc. Prof. Alizan Abdul Khalil	Head Department of Surgery	Male	✓
5. Dr. Poppy Rajan	Representative of Head Department of Pharmacology	Male	✓
6. Pn. Che Zuraini bt. Sulaiman	Representative of Head of Pharmacist Pharmacy Department University Malaya Medical Centre	Female	✓
7. Y. Bhg. Assoc .Prof. Datin Grace Xavier	Representative of Dean (Research Fellow) Faculty of Law University Malaya	Female	✓
8. Y. Bhg. Datin Aminah bt. Pit Abdul Rahman	Public Representative	Female	
9. Madam Ong Eng Lee	Public Representative	Female	✓

Comments: The MEC of University Malaya Medical Centre is operating according to ICH-GCP guidelines and the Declaration of Helsinki. Member's no. 7, 8 & 9 are representatives from Faculty of Law in the University Malaya and the public. They are independent of the hospital or trial site.

.....
PROF. DATUK LOOI LAI MENG
Chairman
Medical Ethics Committee

University of Malaya

Appendix I: Participant information sheet

UNIVERSITY OF MALAYA
FAMILY HARMONY PROJECT TO OVERCOME ELDER ABUSE & NEGLECT

PARTICIPANT INFORMATION SHEET

Please read the following information carefully, do not hesitate to discuss any questions you may have with your Doctor or the researcher.

a. ProjectTitle

'University of Malaya Family Harmony Project To Overcome Elder Abuse & Neglect'

b. Introduction

This project is intended to be a survey of elders living within the community, residing in their own homes or relatives houses or leasing such accommodation.

c. What is the purpose of this project?

To gain a better understanding of family relations in the elders household, such as to identify the occurrence of neglect of elders, which may occur knowingly or unknowingly.

d. What are the procedures to be followed?

After reading this information sheet, if agreeable, for the elder subject to please

i. answer truthfully the questions put forth by the researcher
ii. you may be called via telephone for a follow up session 6 months to 1 year from now
iii. if necessary, you may call these numbers for help:

a. Talian Nur 15999, a hotline dedicated for domestic violence and abuse
b. Teledera toll-free hotline 1-800-88-3040
c. Befrienders helpline 06-7653588/ 06-7653589/ SMS 012-2472580
d. Medical social worker (counsellor) contact for each district

No.	District	Telephone number
1	Seremban	**06-601 5798**
2	Jelebu	**06-613 6428**
3	Jempol	**06-458 1400**
4	Port Dickson	**06-647 1920**
5	Rembau	**06-685 1472**
6	Tampin	**06-441 1646**
7	Kuala Pilah	**06-481 1163**

e. Who should not enter the project?

Elder subjects less than 60 years old, who are not living at home but are living in institutions such as old folks Homes or nursing homes, non-Malaysian subjects, elders who are hearing impaired or deaf, and elder subjects who cannot communicate without the help of another person eg those with stroke who cannot verbalise clearly.

f. Who should enter this project?

Elders aged 60 years and above, residing at home or relatives houses or leasing such accommodation, who are Malaysian citizens, and who are not hearing or speech impaired such that they can communicate on their own without the aid of another person.

University of Malaya

g. What will be benefits of the project:

(I) to you as the subject?

You may benefit in terms of better awareness of when to ask for help from family members or your usual caregiver, and when to seek for help from outside. An incentive of RM10 or equivalent from University of Malaya is also given to those elders who successfully finish the interview session with the researcher.

(II) to the investigator?

This project will help to understand the situations leading to or are more likely to occur in elder abuse. This will then help to better identify such persons and establish better health facilities to identify and further manage such situations.

h. What are the possible drawbacks?

None.

i. Can I refuse to take part in the project?

Yes, you may, without any detriment whatsoever to your further treatment or check-up at your usual health centre or clinic.

j. Who should I contact if I have additional questions during the course of the project?

Researchers Name:

Assoc. Prof. Dr. Noran Naqiah Mohd Hairi	Tel: 03-79674762
Assoc. Prof. Dr. Choo Wan Yuen	Tel: 03-79674930
Assoc. Prof. Dr. Sajaratulnisah Othman	Tel: 03-79492306
Dr. Rajini Sooryanarayana	Tel: 012-4920960
Ms. Rajeswari Karuppiah	Tel: 03-79694929

University of Malaya

Appendix J: Consent form

UNIVERSITY OF MALAYA
'FAMILY HARMONY PROJECT TO OVERCOME ELDER ABUSE & NEGLECT'

CONSENT FORM

I, ... with
(Name of Participant)

Identity Card No .....

of .....

.....
(Address)

hereby agree to take part willingly in the project specified below:
Title of project: 'University of Malaya Family Harmony Project To Overcome Elder Abuse & Neglect' the nature and purpose of which has been explained to me by

.....

.....
(Name & Designation of Interviewer)

to the best of his/her ability in ..... language/dialect.

I have been told about the nature of the project in terms of methodology, possible adverse effects and complications (as per participant information sheet). After knowing and understanding all the possible advantages and disadvantages of this research, I voluntarily consent of my own free will to participate in the project specified above.

I understand that I can withdraw from this project at any time without assigning any reason whatsoever and in such a situation shall not be denied the benefits of usual treatment at health centres by attending doctors.

Date: ....
Signature or Thumbprint
(Participant)

I confirm that I have explained to the participant the nature and purpose of the above-mentioned project.

Date ....
Signature
(Interviewer)

University of Malaya

Appendix K: Questionnaire

University of Malaya
'University of Malaya Family Harmony Project To Overcome Elder Abuse & Neglect'

Address :
.....
.....
.....
.....
.....

Serial no. of participant :

Date	Attempt number	Start time	End time	Name of enumerator	Signature of enumerator

Participant details:

Name : .....

MyKad / NRIC no : .....

Tel no.:

Phone	Number	Preferred number
House phone		
Hand phone		
Other		

Interviewer guide to questionnaire sections

Section	Page number
Introduction, Screening, Confidentiality	1-2
1 – ECAQ	3
2 – GDS 15	4
3 – Household relations/ Health (SF-12), hand grip, walking test	5-8, 9-11
4 – Attitudes to elder abuse	12
5 – ADL, IADL	13-16
6 – Financial dealings	17
7 – Elder mistreatment	18-20
8 – Reporting abuse	21-23
9 – Demographics	24-26
Post interview & incentive acknowledgement receipt	27

University of Malaya

Hello, My name is ....., I am working on behalf of University Malaya. We are currently carrying out a project to study the relationship between senior citizens and their family members or any other individual who are in close contact with them.

Introduction and Screening

Qa Interviewer – please record the gender of participant

Male	1
Female	2

Qb How old were you on your last birthday?
If they are not sure, ask what year they were born in and then calculate their age

[ ][ ][ ] years

Qc Interviewer- please tick the age group

Age 59 and below	1	End the interview
60 to 64 years of age	2	Proceed
65 to 69 years of age	3	Proceed
70 to 79 years of age	4	Proceed
Age 80 years and above	5	Proceed

May I provide you with more information about this project?
This project concerns the experience of senior citizens with regards to maltreatment, abuse or neglect.
Ideally we would like to speak to everyone whether or not they have experienced such treatment or not.
This is the first study of its kind in Malaysia and the results will be used to help protect the elderly in the future.

Information given to us would be treated with full confidentiality; no one would know the content.
We really appreciate your cooperation in carrying out this project. The interview should not take more than an hour, what do you think? Shall we proceed?

Qd Would you like to participate in this project?

Yes	1	Proceed to Qf
No	2	Proceed to Qe

Qe Okay, I understand that you do not want /are not able to speak to us. Before I leave, may I know why?

Interviewer: Please record exactly as stated by the individual.

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Confidentiality of Participation

Your participation in this project is voluntary. There are some questions that may be offensive to some people. If there are any questions which you feel you do not want to answer, you can tell me and we will proceed to the next question.You can also choose to stop and end your participation in this project at any time.

I would like to give you a pamphlet with some more information about this project. If in doubt, you may call the number stated in the pamphlet to make sure my visit is official and that this project is genuine. (Give the participant information sheet to the person)

Qf Can we have this interview in private where other people won't overhear us seeing as some of these questions are rather sensitive?

Yes	1	Proceed to Q1
No	2	Proceed to Qg

Qg Can I arrange another time here which will be more convenient for you?

Yes	1	Please record the details below
No	2	Complete Qe

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Section 1: Elderly Cognitive Assessment Questionnaire

Interviewer: Circle the correct/incorrect responses by the participant and total the marks below.

		Correct	Incorrect
Memory	1. I want you to remember this number. Can you repeat it after me (for example 4517)? I will test you after 10 minutes.	1	0
	2. How old are you?	1	0
	3. When is your birthday? or What year were you born?	1	0
Orientation and Information	4. What day is it today?	1	0
	5 What is the date today?. date	1	0
	6. month	1	0
	7. year	1	0
	8. What do you call this area? (For example, kitchen, living room, bedroom) (Not necessarily the name of the place)	1	0
	9. What does this person work as? (For example show a picture of a nurse or doctor)	1	0
Memory recall	10.Can you still remember the number from just now?	1	0
	Total:	/10	

Interviewer: Please check that you have not left out any items in Section 1.

Please tick (√) if complete.

Section 1 (ECAQ)	

University of Malaya

Section 2:Depression, Anxiety & Stress Scale (DASS 21)

Interviewer: Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week.

No.	Statement	Not at all	Some times	Often	Frequent
1	I found it hard to wind down				
2	I was aware of dryness of my mouth				
3	I couldn't seem to experience any positive feeling at all				
4	I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)				
5	I found it difficult to work up the initiative to do things				
6	I tended to over-react to situations				
7	I experienced trembling (e.g., in the hands)				
8	I felt that I was using a lot of nervous energy				
9	I was worried about situations in which I might panic and make a fool of myself				
10	I felt that I had nothing to look forward to				
11	I found myself getting agitated				
12	I found it difficult to relax				
13	I felt down-hearted and blue				
14	I was intolerant of anything that kept me from getting on with what I was doing				
15	I felt I was close to panic				
16	I was unable to become enthusiastic about anything				
17	I felt I wasn't worth much as a person				
18	I felt that I was rather touchy				
19	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)				
20	I felt scared without any good reason				
21	I felt that life was meaningless				

Interviewer: Please check that you have not left out any items in Section 2.
Please tick (√) if complete.

Section 2 (DASS 21)	

University of Malaya

Section 3: Health and Family Relationships

MARRIAGE

Q.1 Some of these questions are based on your marital status. **Are you currently (choose one code only):

Married	01
Widowed	02
Single (never married)	03
Divorced	04
Do not know	05
Refuse to Answer	06

Q.2a. Do you live alone?

Yes	01
No	02

Q.2b. If **NO to Q2a**, Would you please tell me who is living in your household with you now?

	Q2			If Yes	
	Yes	No	Refuse to Answer	How many people?	What is your relationship with them?
I. Are you living with your spouse/partner? **(Do not ask if code 2, 3 or 4 to Q.1)**	1	2	3		
II. Do you have any children (including step or adopted children) **[If NO, proceed to Q2b.IV]**	1	2	3	☐☐	
III. Do any of your children live with you now?	1	2	3	☐☐	
IV. Are there any other relatives living with you currently? (If yes, please state)	1	2	3	☐☐	_____ _____ _____ _____
V. Is there anyone else living with you, that we haven't mentioned yet? (please state.....)	1	2	3	☐☐	_____ _____

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HEALTH

I would like to begin by asking you a few questions regarding your health and well being.
For each question, please pick the most suitable answer for yourself.

Q3 Have you ever been told by a doctor/assistant medical officer, that you have the following health problems:

	Yes	No
a. High Blood Pressure	1	0
b. Heart problems/blood circulation problems	1	0
c. Stroke	1	0
d. Joint pains/ arthritis	1	0
e. Parkinson's Disease	1	0
f. Diabetes	1	0
g. Breathing problems (Asthma, lung infections)	1	0
h. Cancer (if yes, please state .....)	1	0
i. Cholesterol / low blood pressure problem	1	0
j. Others (please state):	1	0

Q4 **Interviewer:** This question is about your health now. Please try to answer as accurately as you can. In general, would you say your health is.... (Read response choices)

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

Q5 **Interviewer:** Now I'm going to read a list of activities that you might do during a typical day. As I read each item, please tell me if your health now limits you a lot, limits you a little, or does not limit you at all in these activities. (Read response choices only if necessary. If subject says she/he does not do activitiy, probe: is that because of your heath?)

The following questions are about activities that you might do during a typical day.
Does your health now limit your ability to carry out these activities? If so, how much?

	Yes, limited a lot	Yes, limited a little	No, not limited at all
a. Moderate activities, such as moving a table, sweeping, playing badminton, or gardening.	1	2	3
b. Climbing several flights of stairs	1	2	3

Q6 **Interviewer:** The following 2 questions ask you about your physical health and your daily activities.
Q6a During the past week, how much of the time have you accomplished les than you would like as a result of your physical health? (Read response choices)

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
Accomplished less than you would like	1	2	3	4	5

University of Malaya

Q6b During the past week, how much of the time were you limited in the kind of work or other regular daily activities you do as a result of your physical health? (Read response choices)

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
Were limited in the kind of work or other activities	1	2	3	4	5

Q7 The following 2 questions ask about your emotions and your daily activities.

Q7a. During the past week, how much of the time have you accomplished less than you would like as a result of your emotional problems, such as feeling depressed or anxious? (Read response choices)

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
Accomplished less than you would like	1	2	3	4	5

Q7b. During the past week, how much of the time did you do work or other regular daily activities less carefully than usual as a result of your emotional problems, such as feeling depressed or anxious? (Read response choices)

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
Did work or activities less carefully than usual	1	2	3	4	5

Q8 During the past week, how much did pain interfere with your normal work, including both work outside the home and housework? Did it interfere… (read response choices)

Not at all	1
A little bit	2
Moderately	3
Quite a bit	4
Extremely	5

Q9 **Interviewer:** These questions are about how you feel and how things have been with you during the past week.
As I read each statement, please give me the one answer that comes closest to the way you have been feeling; is it all of the time, most of the time, some of the time, a little of the time, or none of the time?

How much of the time during the past week… (read response choices only if necessary)

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
a. Have you felt calm and peaceful?	1	2	3	4	5
b. Did you have a lot of energy?	1	2	3	4	5
c. Have you felt downhearted and depressed?	1	2	3	4	5

University of Malaya

Q10 During the past week, how much of the time has your physical health or emotional problems interfered with your social activities like visiting friends or relatives? Has it interfered.... (read response choices)

None of the time	5
A little of the time	4
Some of the time	3
Most of the time	2
All of the time	1

Now I am going to ask you about your relationship with the healthcare, social service or others in recent times.

Q11 i) In the past 6 months have you come into contact with any of the following services?
ii) **IF YES**, how many times in the past 6 months?

Interviewers Notes:

1. If the elderly person says they were admitted to hospital through the Emergency Department mark both spaces, but check the number of admissions to the Emergency Department, it might be more than admissions to hospital.
2. Please mark the frequency closest to what is said by the participant.

	Not at all	Once	2-3 times	≥4 times	1-2 times a week	Everyday	Refuse to Answer
a) Private clinic							
b) Government Health Clinic							
c) Welfare officers							
d) Outpatient visit to a hospital							
e) Admitted to hospital (at least 24 hours)							
f) Visit to the Emergency Department							

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Interviewer: Now we will do a few simple tests. Please follow my instructions.

Q12. 2.4 meter walking test at normal pace

Participants can use walking aids, but should be encouraged to walk without them if they are comfortable doing so.

Interviewer: "This is a test in which we will observe the way you walk. First, I want you to walk to the end like normal, at a comfortable rate, ignoring the yellow line at the end. For the second try, I will ask you to walk at a comfortable rate to reach the yellow line at the end again. Please stand behind the yellow starting line, make sure your toes are touching the line. Wait for me to say 'Start'. Please remember, I want you to walk at a comfortable rate."

Demonstrate the whole procedure and return to the start line.

Interviewer: "Each time, walk past the yellow finish line. Do you have any questions? Ready? Go".

Start the stopwatch at the first step, and stop as the first step (whether complete or not) crosses the finish line. Count (quietly) the number of steps taken to finish. One step is counted when the foot is placed on the floor, including the first step and the last step in which the participant's foot crosses or touches the finish line. Record the time and number of steps below.

Q12a. First trial (normal walking pace for 2.4 metres)

[ ] seconds [ ] steps

Walking aids used:

a. None	1
b. Straight cane	2
c. Quad cane	3
d. Walker	4
e. Crutch	5
f. Did not attempt the first trial (refused)	6
g. First trial attempted, but failed	7
h. Unable to perform (state reason:.....)	8

When the participant has crossed the finish line, ask the participant to **turn around** and stand at the finish line as they did when asked to stand at the start line before.

Interviewer: "Now, walk back to the opposite end. Walk at a normal pace till you reach the end, and cross over the yellow line. Are you ready? Ok, GO!"

Q12b. Second trial (normal walking pace for 2.4 metres)

[ ] seconds [ ] steps

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Walking aids used:

a. None	1
b. Straight cane	2
c. Quad cane	3
d. Walker	4
e. Crutch	5
f. Did not attempt the second trial (refused)	6
g. Second trial attempted, but failed	7
h. Unable to perform (state reason:.....)	8

Q13. Handgrip strength

Inform the participant: "This equipment is used to measure your arm and upper body strength".

** **Q13a.** Do you have any pains in your hand or hand joint (arthritis)?

Yes	1	Proceed to Q13b and Q13c.
No	2	Proceed to Q13d and do the test.

Q13b. Has the pain been worse lately?

Yes	1
No	2
Do not know	3
Refuse to answer	4

Q 13c. If YES, which side?

		Instructions
Left	1	Do not carry out test
Right	2	Do not carry out test
Both	3	Do not carry out test on both sides

Q 13d. Interviewer: " I want you to place your left/right arm on the table and bend your elbow. Now hold this metal rod like this. Squeeze the metal rod as tight as you can".[Pass the dynamometer over to the participant]. "Do you feel comfortable with that grip?". Adjust if necessary.

"Now try to do a trial. This time, just squeeze gently. It won't feel like the equipment is moving, but your strength will be recorded. Is the metal rod at the correct distance for you to grip it comfortably?" Show the dial to the participant. Carry out the test twice on the right hand and twice on the left.

"We are going to do this two times. This time will be counted, so when I say squeeze, squeeze as hard as you can. Ready? Squueze!Squeeze!Squeeze! Now, stop!"

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Right arm

First trial :.....kg

Refused to try	1
Failed attempt	2
Unable to perform (state reason: .....)	3

Second trial : .....kg

Refused to try	1
Failed attempt	2
Unable to perform (state reason: .....)	3

Left arm

First trial :.....kg

Refused to try	1
Failed attempt	2
Unable to perform (state reason: .....)	3

Second trial : .....kg

Refused to try	1
Failed attempt	2
Unable to perform (state reason: .....)	3

We have come to the end of the first half of the study. Do you need to rest for awhile before we move on to the second half of the study?

Interviewer: Please check that you have not left out any items in Section 3

Please tick (√) if complete.

Section 3 (Health)	

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Section 4: Activities of Daily Living

I will ask a few questions on how you are able to take care of yourself in your own home for the past 12 months (including any problems with temporary disability as a result of illness/ health problems/ surgery/ discharge from the hospital)

ASK ALL for Q14 – Q19.

**Q.14l (Interviewer: Column (I) is in past 12 months, column (II) is since turning age 60 years for parts (a) to (e)

(a) Do you have, or have you been given these by your caregiver/ children….?

(b) Who provides these services for you?
(Choose up to two people, if only one is identified, ask if there is anyone else)

(c) Ever since you turned 60, has there been any time in which this person did not help you when you felt that they should have helped you?

If YES to (c)

(d) How many times has this happened to you?

(e) To you, how serious is this problem of this person not helping you?

(a)	**Do you have, or have you been provided for by your caregiver/ children with…..?**	(I) Food?		(II) Clean clothes?		(III) Able to access medical treatment/ medication when needed?[1]		(IV) Shelter?	
	Yes	1		1		1		1	
	No	2		2		2		2	
	Do not know	3		3		3		3	
	Refuse to answer	4		4		4		4	
(b) Who provides you with the services in (a)?		**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**
	Self								
	Husband/Wife/Partner	1	1	1	1	1	1	1	1
	Adult child	2	2	2	2	2	2	2	2
	Other relatives	3	3	3	3	3	3	3	3
	Friends[2]	4	4	4	4	4	4	4	4
	Neighbours[3]	5	5	5	5	5	5	5	5
	Non-relative (known to the senior citizen)	6	6	6	6	6	6	6	6
	Others (please state)……	7	7	7	7	7	7	7	7
(c) Were there times when this person did not help?		**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**
	Yes	1	1	1	1	1	1	1	1
	No	2	2	2	2	2	2	2	2
**** If YES to (c) (d) How many times?**		**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**
	None	1	1	1	1	1	1	1	1
	Once	2	2	2	2	2	2	2	2
	2 to 9 times	3	3	3	3	3	3	3	3
	10 times or more	4	4	4	4	4	4	4	4
**** If YES to (c) (e) How serious was it?**		**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**
	Not serious	1	1	1	1	1	1	1	1
	Moderately serious	2	2	2	2	2	2	2	2
	Very serious	3	3	3	3	3	3	3	3

INTERVIEWER: 1. If the participant was not on permanent medication, use example as one course of antibiotics
2. If the participant states that the neighbour is a friend,tick the individual as friend,this shall remain the same through out the questionnaire

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ASK ALL for Q14 – Q19.

**Q.14II (Interviewer: Column (I) is in past 12 months, column (II) is since turning age 60 years for parts (a) to (e)

(f) Can you….?

If NO, or if you have any temporary disabilities,

(g) What is your relationship with the main person who helps you with your daily activities? (Choose up to two people, if only one is identified, ask if there is anyone else)

(h) Ever since you turned 60, has there been any time in which this person did not help you when you felt that they should have helped you?

If YES

(i) How many times has this happened to you?

(j) To you, how bad is this problem of this person not helping you?

		(I) Shop for food and clothes without help?		(II) Prepare food without help?		(III) Carry out household chores (washing dishes,sweeping, throwing rubbish) without help?		(IV) Taking medication on time in correct dosage without help?[1]		(V) Use public transport or drive yourself on normal journeys?	
(f) Can you….?											
	Yes	1		1		1		1		1	
	No	2		2		2		2		2	
	Temporarily disabled	3		3		3		3		3	
	Do not know	4		4		4		4		4	
	Refuse to answer	5		5		5		5		5	
	Do not perform this	6		6		6		6		6	
****If NO, or temporarily disabled (g) Relationship with that person?**		**(I)**	**(II)**	**(I)**	**(III)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(III)**
	Husband/Wife/Partner	1	1	1	1	1	1	1	1	1	1
	Adult child	2	2	2	2	2	2	2	2	2	2
	Other relatives	3	3	3	3	3	3	3	3	3	3
	Friends[2]	4	4	4	4	4	4	4	4	4	4
	Neighbours[2]	5	5	5	5	5	5	5	5	5	5
	Non-relative (known to the senior citizen)	6	6	6	6	6	6	6	6	6	6
	Paid house helper	7	7	7	7	7	7	7	7	7	7
(h) Were there times when this person did not help?		**(I)**	**(II)**	**(I)**	**(III)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(III)**
**	Yes	1	1	1	1	1	1	1	1	1	1
	No	2	2	2	2	2	2	2	2	2	2
****If YES to (h) (i) How many times?**		**(I)**	**(II)**	**(I)**	**(III)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(III)**
	None	1	1	1	1	1	1	1	1	1	1
	Once	2	2	2	2	2	2	2	2	2	2
	2 to 9 times	3	3	3	3	3	3	3	3	3	3
	10 times or more	4	4	4	4	4	4	4	4	4	4
**** If YES to (h) (j) How serious was it?**		**(I)**	**(II)**	**(I)**	**(III)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(III)**
	Not serious	1	1	1	1	1	1	1	1	1	1
	Moderately serious	2	2	2	2	2	2	2	2	2	2
	Very serious	3	3	3	3	3	3	3	3	3	3

INTERVIEWER: 1. If the participant was not on permanent medication, use example as one course of antibiotics

2. If the participant states that the neighbour is a friend,tick the individual as friend,this shall remain the same through out the questionnaire.

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**Q.14III (Interviewer: Column (I) is in past 12 months, column (II) is since turning age 60 years for parts (f) to (j)

(k) Can you……?
If NO, or if you have any temporary disabilities,

(l) What is your relationship with the main person who helps you with your daily activities? (Choose up to two people, if only one is identified, ask if there is anyone else)

(m) Ever since you turned 60, has there been any time in which this individual did not help you when you felt that they should have helped you?

If YES

(n) How many times has this happened to you?

(o) To you, how bad is this problem of this individual not helping you?

		(vi) Go up and down a flight of stairs without help		(vii) To wash and bathe yourself without any help		(viii) To move about your house without any help (walking aid , walking stick allowed)		(ix) To get to and use the toilet without any help		(x) To cut up and eat your food without any help	
	k) Can you...?										
	Yes	1		1		1		1		1	
	No	2		2		2		2		2	
	Temporarily disabled	3		3		3		3		3	
	Do not know	4		4		4		4		4	
	Refuse to answer	5		5		5		5		5	
	Do not peform this	6		6		6		6		6	
	****If NO or temporarily disabled l) Relationship with that person**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**
	Husband/Wife/Partner	1	1	1	1	1	1	1	1	1	1
	Adult child	2	2	2	2	2	2	2	2	2	2
	Other relatives	3	3	3	3	3	3	3	3	3	3
	Friends	4	4	4	4	4	4	4	4	4	4
	Neighbours	5	5	5	5	5	5	5	5	5	5
	Non relative (known to the senior citizen)	6	6	6	6	6	6	6	6	6	6
	Paid house helper	7	7	7	7	7	7	7	7	7	7
	m) Were there times when this person did not help?	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**
**	Yes	1	1	1	1	1	1	1	1	1	1
	No	2	2	2	2	2	2	2	2	2	2
	****If YES to (m) n) How many times?**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**
	None	1	1	1	1	1	1	1	1	1	1
	Once	2	2	2	2	2	2	2	2	2	2
	2 to 9 times	3	3	3	3	3	3	3	3	3	3
	10 times or more	4	4	4	4	4	4	4	4	4	4
	****If YES to (m) o) How serious was it?**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**	**(I)**	**(II)**
	Not serious	1	1	1	1	1	1	1	1	1	1
	Moderately serious	2	2	2	2	2	2	2	2	2	2
	Very serious	3	3	3	3	3	3	3	3	3	3

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**Q.14iv (Interviewer: Column (I) is in past 12 months, column (II) is since turning age 60 years for parts (k) to (o)

(p) Can you.....?
If NO, or if you have any temporary disabilities,

(q) What is your relationship with the main person who helps you with your daily activities? (Choose up to two people, if only one is identified, ask if there is anyone else)

(r) Ever since you turned 60, has there been any time in which this individual did not help you when you felt that they should have helped you?

If YES

(s) How many times has this happened to you?

(t) To you, how bad is this problem of this individual not helping you?

		(xi) Wearing clothes, such as putting on a shirt, buttoning up your shirt, zipping up or wearing shoes	
	p) Can you.....?		
	Yes	1	
	No	2	
	Temporarily disabled	3	
	Do not know	4	
	Refuse to answer	5	
	Do not perform this	6	
****If NO or temporarily disabled**	**q) Relationship with that person**	**(I)**	**(II)**
	Husband/Wife/Partner	1	1
	Adult child	2	2
	Other relatives	3	3
	Friends	4	4
	Neighbours	5	5
	Non relative (known to the senior citizen)	6	6
	Paid house helper	7	7
	r) Were there times when this person did not help?	**(I)**	**(II)**
**	Yes	1	1
	No	2	2
****If YES to (r)**	**s) How many times?**	**(I)**	**(II)**
	Never	1	1
	Once	2	2
	2 to 9 times	3	3
	10 times or more	4	4
****If YES to (r)**	**t) How serious was it?**	**(I)**	**(II)**
	Not serious	1	1
	Moderately serious	2	2
	Very serious	3	3

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Q.15v (a) Have you ever had a temporary disability since turning age 60 years?

Yes	1	Go to Q15 v (b) & (c), and Q 16 (a) & (b)
No	2	
Do not know	3	
Refuse to answer	4	

(b) What type of temporary disability were you experiencing since turning age 60 years?

Stroke	1
Fractured bone	2
Health related problem	3
Admitted to ward as inpatient	4
Others (please state).....	5

(c) If yes, approximately how long did you require help or depended on someone else for help?

..... weeks or ..... months

Q.16 ASK IF YES TO Q.15v (a)

Q.16a What is the age of the individual who assisted you or was your caregiver (provided most of the assistance)?

Caregiver 1		Years
Caregiver 2		Years

Q.16b Do you feel that the individual who helps you most of the time is able (physically and mentally) to carry out this role?

	Not able at all	Slightly able	Moderately able	Very able
Caregiver 1	1	2	3	4
Caregiver 2	1	2	3	4

Q17a. Are you taking care of anyone else ? (helping someone bathe, eat, walk, use the toilet). Do not include care for someone with a temporary disability.

Yes	1	Proceed to Q17b
No	2	Proceed to Q18

ASK IF YES TO Q17a

Q.17b. Whom do you look after?

Grandchild	1
Spouse/ partner	2
Parents	3
Children	4
Others (please state)	5

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Q.17c. How old is the individual whom you provide care for?

Individual 1	Age		Years
Individual 2	Age		Years

Q.17d Do you think that you are able (mentally and physically) to carry out this role?

No, not able	Slightly able	Moderately able	Very able
1	2	3	4

Q.18 Interviewer: Please take note and tick here if the respondent was:

		Yes	No
a	Not looking at you when you are talking/ when responding (poor eye contact)	1	2
b	Appears very depressed	1	2
c	Appears very underweight or malnourished	1	2
d	Appears dirty/ not clean	1	2
e	Has signs of wounds	1	2
f	Has signs of bruises	1	2
g	Is clothed inappropriately	1	2
h	Cannot access or obtain necessary medication	1	2

Interviewer: Please check that you have not left out any items in Section 4. Please tick(√) if complete

Section 4 (ADL)	

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Section 5: Financial Matters

I will be asking you a few questions about your financial dealings with other people:

**Q.19 (Interviewer: Column (i) is in past 12 months, column (ii) is since turning age 60 years for parts (i) to (ix)

(a) Ever since you turned 60, has anyone who is living with you or spent time with you do any of the things mentioned below?

IF YES

(b) What is your relationship with this person (Choose upto 2 people, if only one person is identified, ask if there is anyone else)

(c) **In (i) the past 12 months, or (ii) since turning 60 years of age,** how many times did this happen?

(d) In your opinion, how serous was this problem for you?

	(i) Stealing money/things/property or documents		(Ii) Purposely pieventing you from having accessing your money /things /property/ land/documents		(iii) Manipulate or force you into giving money/property/things/pension book against your will		(iv) Force or manipulate you into handing over ownership of the house/land/pension book against your will		(v) Force or manipulate you into altering your will or any other financial document against your will		(vi) Signing cheques,pension book or any other financial document against your will		(vii) Misuse the power of attorney given by you/ forcing or manipulating you into giving him/her power of attorney		(viii) Trying or forcing you to do any of those mentioned (stealing money, property, altering official documents or pension book)but failed		(ix) Stop contributing towards the household expenditure such as rent or food, which has already been agreed upon before	
(a) Any of the following																		
Yes	1		1		1		1		1		1		1		1		1	
No	2		2		2		2		2		2		2		2		2	
Do not know	3		3		3		3		3		3		3		3		3	
Refuse to answer	4		4		4		4		4		4		4		4		4	
(b) IF YES, relationship with that person	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
Husband/Wife/Partner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adult child	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Other relatives	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Friend	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Neighbours	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Not a relative (Known by the senior citizen)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Paid house helper	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Medical profession staff	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Stranger	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
(c) How many times in the past 12 months	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
None	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Once	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2 to 9 times	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
10 times or more	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
(d) How serious was it?	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
Not serious	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Moderately serious	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Very serious	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

(e) Interviewer: If the respondent answers **YES/NO** to any of the incidents above (Q.19a), please ask:
Would you consider than behaviour as abuse or mistreatment **IF** it were to happen to you? Yes ☐ No ☐

Section 7: Maltreatment of Senior Citizens I

It doesn't matter how good our relationship is with other people, sometimes our family members or people we know and depend on will disagree and we may get angry with each other. Different people have different ways to deal with problems and disagreements. I will read out a list of things they might say or do.

(Interviewer: Column (i) is in past 12 months, column (ii) is since turning age 60 years for parts (i) to (xi)

**Q.20 (a) Eversince you turned 60, has there been anyone (family member or a person who spends time with you) who has done this to you?

IF YES

(b) What is your relationship with this person (Choose upto 2 people, if only 1 person was mentioned, ask if there is anyone else)

(c) **In (i) the past 12 months, or (ii) since turning 60 years of age,** how many times did this happen?

(d) In your opinion, how serious was the problem?

	i) Cursing you or calling you harsh names		ii) Threaten you verbally		iii) Belittle anything that you do or just put you down		iv) Ignore you or don't involve you repeatedly		v) Threaten to hurt your loved ones		vi) Prevent you from visiting your loved ones or even a doctor or nurse		vii) Try to slap or hit you		viii) Push, slap or shove you		ix) Remove or stop you from using devices such as hearing aid or walking aid	
(a) Any of the following																		
Yes	1		1		1		1		1		1		1		1		1	
No	2		2		2		2		2		2		2		2		2	
Do not know	3		3		3		3		3		3		3		3		3	
Refuse to answer	4		4		4		4		4		4		4		4		4	
If YES (b) Relationship with that person	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
Husband/Wife/Partner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adult child	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Other relatives	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Friends	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Neighbours	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Non-relatives (known to the senior citizen)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Paid house helper	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Medical profession staff	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Stranger	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
(c) How many times in the past 12 months	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
None	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Once	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2 to 9 times	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
10 times or more	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
(d) How serious was it?	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
Not serious	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Moderately serious	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Very serious	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

(e) Interviewer: If the respondent answers **YES/NO** to any of the incidents above (Q.19a), please ask:
Would you consider than behaviour as abuse or mistreatment **IF** it were to happen to you? Yes ☐ No ☐

Maltreatment of Senior Citizen III

**Q.21 (Interviewer: Column (i) is in past 12 months, column (ii) is since turning age 60 years for parts (i) to (viii)

(a) Ever since you turned 60, has anyone who lives with you or those that spend time with you, done the following?
IF YES

(b What is your relationship with this person (Choose upto 2 people, if only 1 person was mentioned, ask if there is anyone else)

(c) **In (i) the past 12 months, or (ii) since turning 60 years of age,** how many times did this happen?

(d) In your opinion, how serious was the problem?

	(i) Tried to hit or slap you		(ii) Push you, shove you, or slap you		(iii) Hit you or tried to you with an object		(iv) Kick, bite or hit you with a clenched fist		(v) Burn you or scald you		v) Drug you or give you an overdose of medication with the intention of controlling you or making you drowsy		(vi) Restraining you in anyway for example locking you up in a room or tying you up to a chair or gun		(vii) Threaten you with a knife or gun	
(a) Any of the following...																
Yes	1		1		1		1		1		1		1		1	
No	2		2		2		2		2		2		2		2	
Do not know	3		3		3		3		3		3		3		3	
Refuse to answer	4		4		4		4		4		4		4		4	
IF YES **(b) Relationship with that person**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
Husband/Wife/Partner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adult child	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Saudara lain	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Friends	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Neighbours	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Non-relatives (known to the senior citizen)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Paid house helper	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Medical profession staff	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Stranger	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
(c) How many times in the past 12 months	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
None	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Once	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2 to 9 times	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
10 times or more	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
(d)?How serious was it?	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
Not serious	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Moderately serious	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Very serious	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

(e) Interviewer: If the respondent answers **YES/NO** to any of the incidents above (Q.19a), please ask:
Would you consider than behaviour as abuse or mistreatment **IF** it were to happen to you? Yes ☐ No ☐

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Section 7: Maltreatment of Senior Citizens I

It doesn't matter how good our relationship is with other people, sometimes our family members or people we know and depend on will disagree and we may get angry with each other. Different people have different ways to deal with problems and disagreements. I will read out a list of things they might say or do.

(Interviewer: Column (i) is in past 12 months, column (ii) is since turning age 60 years for parts (i) to (xi)

**Q.22 (a) Eversince you turned 60, has there been anyone (family member or a person who spends time with you) who has done this to you?

IF YES

(b) What is your relationship with this person (Choose upto 2 people, if only 1 person was mentioned, ask if there is anyone else)

(c) **In (i) the past 12 months, or (ii) since turning 60 years of age,** how many times did this happen?

(d) In your opinion, how serious was the problem?

	(i) Speak to you in an unwanted sexual manner		(ii) Touch or try to touch you in an unwanted sexual manner/ against your will		(iii) Force you for try to force you into forming a sexual relationship against your will	
(a) Any of the following						
Yes	1		1		1	
No	2		2		2	
Do not know	3		3		3	
Refuse to answer	4		4		4	
If YES (b) Relationship with that person	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
Husband/Wife/Partner	1	1	1	1	1	1
Adult child	2	2	2	2	2	2
Other relatives	3	3	3	3	3	3
Friends	4	4	4	4	4	4
Neighbours	5	5	5	5	5	5
Non-relatives (known to the senior citizen)	6	6	6	6	6	6
Paid house helper	7	7	7	7	7	7
Medical profession staff	8	8	8	8	8	8
Stranger	9	9	9	9	9	9
(c) How many times in the past 12 months	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
None	1	1	1	1	1	1
Once	2	2	2	2	2	2
2 to 9 times	3	3	3	3	3	3
10 times or more	4	4	4	4	4	4
(d) How serious was it?	**(i)**	**(ii)**	**(i)**	**(ii)**	**(i)**	**(ii)**
Not serious	1	1	1	1	1	1
Moderately serious	2	2	2	2	2	2
Very serious	3	3	3	3	3	3

(e) Interviewer: If the respondent answers **YES/NO** to any of the incidents above (Q.19a), please ask:

Would you consider than behaviour as abuse or mistreatment **IF** it were to happen to you? Yes ☐ No ☐

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Q.23 Write down relevant information which you feel was not included yet, for example; not allowed to meet with grandchildren, or if the person is physically or psychologically abused because the person they care for has dementia.

****IF NO to all parts of Q20, Q21 & Q22, proceed to Q26. If YES, proceed to Q24 and Q25**

Q24 Did any of the behaviours mentioned above cause you physical injury/injuries

None	0
Slight bruising	1
Had to see a doctor at a private clinic or government health clinic.	2
Forced to go to the emergency department	3
Had to be admitted to the hospital	4
Others (please state)	5

Q.25 How old were you when you first started experiencing any sort of maltreatment that we spoke about earlier?

Age		Years

Q.26a Have you ever experienced any of the abuse or neglect we discussed earlier before the age of 60?

Yes	1
No	2

Q26b If YES, please state:

**** Section 4, 5, and 6:**

IF **NO** to Q14C, 14H, 14M & 14R **AND** IF **NO** to ALL OF Q19, Q20, Q21, Q22 & Q26	Proceed straight to Q31 (Demographics)

Interviewer: Please check that you have not left out any items in Section 5 & 6. Please tick (√) if complete.

Section 5 (Financial matters)	
Section 6 (Maltreatment I, II and II)	

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Section 7: Reporting Abuse

**From Section 4, 5 & 6:

IF **YES** to 14C, 14H, 14M &14R **OR** IF **YES** to ANY PART OF Q20, Q21, Q22& Q26	Proceed to Q29

I would like to ask you a few questions about the abuse or neglect which you have experienced.

Q.29a Since age 60 years have you reported any of the instances of physical maltreatment, abuse or neglect to anyone?

Yes	01	Please answer Q29 b, c & d
No	02	Please answer Q29 c & d

Q.29b **IF YES** to Q.29a, please list out and circle all that are relevant.

	Maltreatment by someone known to the elderly person (family members/ friends/neighbours etc)
Family	01
Friend	02
Neighbour	03
Nurse	04
Doctor	05
Welfare officer	06
Police	07
Emergency hotline	08
Others (please state) ————————	09

Q.29c What action did you take or what action was taken on your behalf to avoid such abuse from happening again. **(READ OUT THE LIST TO THE PARTICIPANT AND CIRCLE THE ONES CHOSEN)**

No action, the abuse stopped by itself	1
No action, the abuse is still going on	2
You spoke with the person abusing you	3
Family memberbor friend spoke to that person on your behalf	4
Professional (welfare officer/police/doctor/nurse) spoke to the person on your behalf	5
You did not meet/ avoided the person involved in the abuse	6
You rarely go out or you do not socialize anymore on the whole	7
Police Restraining Order or Order of Protection against that particular person	8
Others (please state)	9

Q29d Was the action successful?

No, the abuse continued/ is still going on	1
Yes, the abuse reduced	2
Yes, the abuse stopped and did not take place again	3

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Q.30 **From Section 4, 5 &6:

IF **YES** to Q14C, 14H , 14M or 14R **OR** IF **YES** to ANY PART OF Q19, 20, Q21, Q22 or Q26	Ask Q30

I understand that this may be difficult for you, but can I ask a few questions about the people involved in the behaviour we have discussed so far?

All questions are about the time in which the abuse occured.	**Perpetrator 1**	**Perpetrator 1**
i) What age was this person when the abuse started?	☐☐ Years	☐☐ Years
i) Were they male or female?	1. Male 2. Female	1. Male 2. Female
iii) Were they married/partnered/ separated/divorced/single?	1. Married 2. Partnered 3. Separated 4 Divorced 5. Single 6. Widowed 7. Not applicable 8. Not available	1. Married 2. Partnered 3. Separated 4 Divorced 5. Single 6. Widowed 7. Not applicable 8. Not available
iv) Was the person living with you at the time of the abuse?	1. Yes 2. No	1. Yes 2. No
v) Is the person still living with you?	1. Yes 2. No 3. Sometimes	1. Yes 2. No 3. Sometimes
vi) Where did the abuse usually take place?	1. Your house 2. Relative's house 3. Friend's house 4. Day care centre 5. Others _____	6. Your house 7. Relative's house 8. Friend's house 9. Day care centre 10. Others _____
vii) Was the person employed or unemployed?	1. Working 2. Unemployed	1. Working 2. Unemployed
viii) If employed please state the occupation (state specifically)		
ix) What was their relationship with you?	1. Husband/Wife/Partner 2. Adult child 3. Other relatives 4. Friend 5. Neighbour 6. Non-relative 7. Paid house helper 8. Medical profession staff 9. Stranger	1. Husband/Wife/Partner 2. Adult child 3. Other relatives 4. Friend 5. Neighbour 6. Non-relative 7. Paid house helper 8. Medical profession staff 9. Stranger
x) How long have you known this person?	_____ Years _____ Months	_____ Years _____ Months
xi) What is their highest education level (primary school, secondary school, college)	1. Not educated 2. Primary school 3. Secondary school 4. College/University 6. Do not know	1. Not educated 2. Primary school 3. Secondary school 4. College/University 6. Do not know
xii) Do they have any physical health problems (please state)	1. Yes **If yes** _____ 2. No 3. Do not know	1. Yes **If yes** _____ 2. No 3. Do not know
xiii) Does the person have any addictions to alcohol/ drugs/ gambling? (If yes, please state the type of addiction)	1. No 2. Alcohol 3. Drugs 4. Gambling 5. Do not know	1. No 2. Alcohol 3. Drugs 4. Gambling 5. Do not know

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xiv) Do they have any mental health problems (such as dementia, depression)? (please state)	1. Yes If yes,_____ 2. No 3. Don't know	1. Yes If yes,_____ 2. No 3. Don't know
xv) Was the person less clever?	1. Yes 2. No 3. Do not know	1. Yes 2. No 3. Do not know
xvi) Did the person have any criminal records?	1. Yes 2. No 3. Do not know	1. Yes 2. No 3. Do not know
xvii) Please write down any relevant information		

Write down any additional information that you think would be relevant.

Interviewer: Please check that you have not left out any items in Section 7. Please tick(√) if complete.

Section 7 (Reporting abuse)	

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Section 8: Demographics

We would like to ask a few questions about your background to make sure we have opinions from all people of different backgrounds.

**Q.31 What is the level of education (full time or part time) that you have completed?

No formal education	1
Primary school	2
Secondary school	3
College/ University	4
Others (please state)	5

Q.32 Do you...?

Own your house	1
Live with family members in their house	2
Live in a rented house	3
Others (please state)	4
Do not know	5
Refuse to answer	6

Family: Taking into account people who have a relationship with you whether through family or through marriage…

Q. 33 How many relatives do you meet or hear from at least once a month?

None	0
One	1
Two	2
Three or Four	3
Five to Eight	4
Nine or more	5

Q. 34 How many relatives do you feel have a close relationship with you so that you can call them for help if needed?

None	0
One	1
Two	2
Three or Four	3
Five to Eight	4
Nine or more	5

Q. 35. How many relatives do you have whom you feel comfortable talking about personal matters?

None	0
One	1
Two	2
Three or Four	3
Five to Eight	4
Nine or more	5

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Friends: Taking into account your friends including those that stay in your village…
Q. 36 How many friends do you meet or hear from at least once a month?

None	0
One	1
Two	2
Three or Four	3
Five to Eight	4
Nine or more	5

Q. 37 How many friends do you feel you are close to so that you can call for help if needed ?

None	0
One	1
Two	2
Three or Four	3
Five to Eight	4
Nine or more	5

Q. 38 How many friends do you have whom you feel comfortable talking about personal matters?

None	0
One	1
Two	2
Three or Four	3
Five to Eight	4
Nine or more	5

Q.39 Are you still employed and receiving pay?

Yes	1
No	2

Q.40 What was your main occupation before/now (specify details).

Q.41 What was the main occupation of your partner before this/ now
Interviewer: Even if the older person is widowed, this question should still be asked.

Q.42a May I ask, roughly how much income do you have to survive in a month?

RM.....

This is the net income of your household (if your spouse/partner is also earning, state the amount of your joint income) This does not include the income of adult children.

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Q42b. Who provides you with the income?

Own income	1
Spouse/ pension of spouse	2
Own pension	3
Children	4
Parents	5
Relative	6
Others (please state)	7

Q42c In one month, roughly what is the gross income of your household?

RM.....

Q42d How many persons are there in your household?

Q. 43 What is your ethnic group or race? **CHOOSE ONE CODE ONLY**

Bumiputra- Malay	1
Bumiputra, non-Malay	2
Chinese	3
Indian	4
Others (specify:.....)	5

Thank you for your help and time. I have no more questions. Is there anything you want to ask me? I know the information we have discussed is rather sensitive. I would like to stress once again that this information is private and confidential and no one will know its content. The results of this project will be used by the researchers from the University of Malaya and perhaps the Ministry of Health to improve policy and resources to protect elderly people in our community.

If there is any issue that has offended you or you wish to speak to someone about, I can give you further contact details of a few people who can help. Your clinic doctors are also experienced on issues like this and can help you.

Interviewer: Please check that you have not left out any items in Section 5. Please tick (√) if complete.

Section 8 (Demographics)	

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AFTER THE INTERVIEW

Q.44 Do you have full confidence that the participant was able to answer the questions correctly?

Very confident	1
Some what/Moderately confident	2
Slightly confident	3
Not confident at all	4
Do not know	5
Refuse to answer	6

DANGER

Q.45 Do you feel or believe that the participant is in any sort of danger?

Yes	1
No	2

If YES

Q.46 Please describe the danger and report this case to your supervisor .

DISTRESS

Q 47 Do you feel the participant experienced any sort of distress

Ya/Yes	1
Tidak /No	2

If YES

Q.48 Please describe the difficulties you believe the participant would have experienced, the action taken, and if the situation seems worrying, report it to your supervisor.

Interviewer: Please take a few minutes to check that you have not left out any items in all the sections. Please tick (√) if complete.

Section 1 (ECAQ)	Pg 3	
Section 2 (DASS21)	Pg 4	
Section 3 (Health)	Pg 5-11	
Section 4 (ADL and neglect)	Pg 12-17	
Section 5 (Financial matters)	Pg 18	
Section 6 (Maltreatment of senior citizen I & II)	Pg 19-22	
Section 7 (Reporting abuse)	Pg 23-25	
Section 8 (Demographics)	Pg 26-28	
Post interview	Pg 29	

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Appendix L: Correlation matrix for DASS21 and SF12*v*2 Mental Composite Score

Correlations

			Dass stress total	Dass anxiety total	Dass depression total	DASS_ raw_score	MCS
Spearman's rho	Dass stress total	Correlation Coefficient	1.000	.484**	.619**	.836**	-.381**
		Sig. (2-tailed)	.	.000	.000	.000	.000
		N	2095	2086	2085	2076	2073
	Dass anxiety total	Correlation Coefficient	.484**	1.000	.465**	.795**	-.288**
		Sig. (2-tailed)	.000	.	.000	.000	.000
		N	2086	2102	2091	2076	2080
	Dass depression total	Correlation Coefficient	.619**	.465**	1.000	.771**	-.371**
		Sig. (2-tailed)	.000	.000	.	.000	.000
		N	2085	2091	2103	2076	2081
	DASS_ raw_score	Correlation Coefficient	.836**	.795**	.771**	1.000	-.394**
		Sig. (2-tailed)	.000	.000	.000	.	.000
		N	2076	2076	2076	2076	2054
	MCS	Correlation Coefficient	-.381**	-.288**	-.371**	-.394**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		N	2073	2080	2081	2054	2095

**Correlation is significant at the 0.01 level (2-tailed).

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