A cluster randomized trial on improving nurses’ detection and management of elder abuse and neglect (I-NEED): study protocol


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Abstract

Aim. The aim of this study was to describe a trial protocol of an educational intervention for nurses to improve their awareness and practice in detecting and managing elder abuse and neglect.

Background. Knowledgeable and skilful nurses are crucial amidst the growing numbers of maltreated older patients.

Design. This trial is a multi-site, three-armed, community-based cluster randomized controlled trial with 6-months follow-up.

Methods. This study will involve 390 community and registered nurses from government health clinics in Negeri Sembilan, Malaysia (protocol approved in October 2013). This three-phased study, premised on the Precede–Proceed Model, comprises baseline focus group discussion and survey (Phase 1), development of training module (Phase 2) and implementation and evaluation of the training (Phase 3). Eligible participants will be randomized to the control group (continuous nursing education), intervention group A (face-to-face intensive training programme) or group B (face-to-face intensive training programme and an educational video). Outcome measures include improvement in knowledge and awareness on elder abuse and neglect and the number of cases identified and managed during follow-up. Data will be collected at baseline, immediate postintervention, 3- and 6-month follow-up.

Conclusion. Findings from this study will provide empirical support for the development of a training module for nurses on the detection and management of elder abuse and neglect, towards improving healthcare delivery and the well-being of vulnerable older adults. This study is funded by the University of Malaya Research Grant (RP001C-13HTM), (FL002-13SBS) and University of Malaya

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Why is this study needed?

- The outcomes of the study will contribute to the development of evidence-based educational programmes on the detection and management of elder abuse and neglect for nurses in multi-ethnic Asian settings.
- The mixed-methods approach will present opportunities for the nurses to share their experience in the awareness and practice of detecting and managing elder abuse and neglect cases and additionally provide evaluation of the educational intervention.
- The proposed study will potentially guide the improvement of existing guidelines and healthcare policies and practices for the detection and management of elder abuse and neglect and contribute to enhancing the safety and quality of life of older adults at risk.
Introduction

Filial piety, respect, gratitude and compassion towards older people are in question when elder abuse and neglect (EAN) surfaces. In the USA, findings from The National Elder Mistreatment Study revealed that prevalence estimates of elder abuse or neglect among community-dwelling, cognitively intact older respondents was close to 10% (Acierno et al. 2010). More recently, a review by Sooryanarayana et al. (2013) based on community based studies worldwide documented that prevalence in developed nations ranged from 1.1-44.6% while estimates in low-middle income countries ranged from 13.5-28.8% (Sooryanarayana et al. 2013). Although prevalence estimates of elder abuse varied widely due to methodological and definition variations (Yan et al. 2014), this pervasive medical and social issue merits attention of clinicians and the public globally.

Healthcare professionals, nurses, in particular, who serve at the frontline of healthcare delivery, are uniquely positioned and instrumental in identifying abuse cases given the extent and duration of contact with older patients and the access to observe and discreetly discuss patient and caregiver relationship (Lachs & Pillemer 2004). In an international collaborative study comparing Swedish and Japanese nurses’ reaction to elder abuse, similarities in responses to cases were noted despite originating from two different cultures, pointing to the global ‘humanness’ of the problem of elder abuse (Erlingsson et al. 2012). Nurses, therefore, must be schooled with the knowledge and skills necessary to identify and manage maltreatment among this vulnerable group to rescue and restore dignity, self-worth and quality of life to the affected individual. Training and education has been acknowledged as an effective means of improving the recognition of those at risk of or already experiencing maltreatment (Cooper et al. 2009). Most educational materials have focused on Western populations. This highlights the need for empirical evidence and perspectives from Asian populations given the differences in culture, societal norms and practices related to this issue, which is often regarded as a taboo in Asian contexts. International research is, therefore, valuable in providing a body of knowledge and insights into the identification and management of elder abuse and neglect that may prove applicable and transferable across cultures in efforts towards improving nursing practice.

Background

Elder abuse is characterized as any action, single or repeated that causes harm or creates serious risk of harm to a vulnerable elder by a caregiver or trusted individuals and includes failure by a caregiver to satisfy basic needs for survival or lack of action to protect the elder from harm (World Health Organization 2002). This encompasses physical and psychological abuse, sexual assault, financial exploitation and neglect that may take place at home, hospitals or nursing homes (Wolf et al. 2002, McGarry & Simpson 2008). Neglect refers to the failure of a carer to fulfil an obligation to care for the older adult (National Committee for the Prevention of Elder Abuse 2013). Shared living arrangements heighten the risk for conflict and tension triggering elder abuse or neglect more so when the older adult is cognitively impaired or socially isolated (Lachs & Pillemer 2004). Furthermore, physical disability
or functional impairment in the older person often renders them defenceless in abusive situations. It has been observed that perpetrators are characteristically mentally ill, depressed, alcohol or substance abusers or financially dependent (Stark 2012). Lachs and Pillemer (2004) advocate context-specific interventions for elder abuse although effective interventions for elder abuse are still inconclusive as scientifically rigorous research are limited with mixed findings (Ploeg et al. 2009).

Sentiments that screening for elder abuse and neglect are a double-edged sword have arose with fears of paradoxically worsening the situation in a contentious family when the abuser is identified and arrested (Lachs & Pillemer 2004). Limited accessibility to cloistered individuals further complicates any possible screening. That said, turning a blind eye or being indifferent is certainly not the way forward with the increasing prevalence of elder abuse and neglect threatening the burgeoning ageing population worldwide. Cases of elder abuse may be overlooked as signs and symptoms can be masked by illness or injury associated with ageing or declining health such as fractures, weight loss, non-adherence to medication and incontinence (Stark 2012) although indicators clearly attributable to elder abuse or neglect have been established (McGarry & Simpson 2008, Weaver 2010, National Committee for the Prevention of Elder Abuse 2013). Reasons for non-disclosure on the part of the older individual include shame, denial, fear of reprisal, loss of independence or retaliation, poor self-esteem, self-blame or the inability to express their predicament (Bond & Butler 2013). Furthermore, difficulty in making diagnoses is compounded with multi-comorbidities, poor or restricted access to frail older adults and patients’ reluctance to expose an embarrassing family situation.

The important responsibility and role of healthcare professionals, in particular, that of nurses in addressing this complex issue in aged care was highlighted by Phelan (2009). Sandmoe & Kirkevold (2011) emphasized that the handling of elder abuse cases should not rest solely on nurses but should be discussed and resolved in collaboration with support and guidance from managerial nurses and protective services for older people (Sandmoe & Kirkevold 2011). With that, detection, management and mitigating the impact of this multi-factorial cycle of abuse on the vulnerable older person must be the goal of healthcare professionals using a multi-disciplinary approach.

While reporting elder abuse cases are mandated by law only in certain countries, healthcare providers have an ethical and legal responsibility to screen for, identify and report cases of abuse (Wagenaar et al. 2010). However, healthcare professionals often find themselves with inadequate knowledge of how to identify and recognize elder mistreatment cases, the reporting mechanisms involved and available resources to help these victims (Taylor et al. 2006, Wagenaar et al. 2009). More often than not, they uncomfortably settle with not reporting due to time constraints, unfamiliarity with screening tools, fear of involvement and safety or misdiagnosis of signs and symptoms (Bond & Butler 2013).

Healthcare workers are further confronted with a conundrum of complex family issues, contextual problems, cultural factors and ethical dilemmas during case management (Killick & Taylor 2009). In all of these, reporting must protect and maintain the anonymity of whistle-blowers, liberating them from concerns of litigation.

The grave importance for healthcare providers to be equipped to recognize signs and symptoms of elder abuse and neglect to create effective treatment plans for victims they may encounter during practice cannot be understated. Training and education tailored for nurses has been acknowledged as effective means of improving the recognition of those at risk of or already experiencing maltreatment (Cooper et al. 2009). Findings from a randomized controlled trial suggested that educational seminars were more effective than printed material in improving knowledge on how to manage elder abuse among nursing and social care staff (Richardson et al. 2002). In a systematic review, Cooper et al. (2009) highlighted that face-to-face training was effective in increasing knowledge whereas dissemination of written information was not (Cooper et al. 2009). The pressing need for context-specific and culturally appropriate training and education programmes for healthcare professionals buttressed with theoretical underpinnings cannot go unheeded.

Malaysia is facing a growing ageing population and will possibly reach an ageing nation status by 2035 with the number of adults aged 60 and above predicted to constitute 15% of the population. An ageing population coupled by rapid urbanization and changing family structure, further exacerbates the problem of isolation and limited autonomy faced by older people. It is expected that the number of dependent older people will increase tremendously making them vulnerable to abuse, neglect or exploitation. Specific official statistics dedicated to record elder abuse is yet to be available in the country. However, a recent community based study among urban poor older people living in Kuala Lumpur suggests that the problem of elder abuse and neglect is relatively common. Approximately 10% of the surveyed older people reported experiencing some form of abuse or neglect in the preceding 12 months (Sooryanaraya-
na et al. 2015) with financial and psychological abuse identified as the most prevalent. It is therefore imperative that all healthcare professionals be equipped with the awareness, ability to detect and effectively manage elder abuse and neglect cases since they have regular contact with older people and are in an ideal position to detect and intervene. To address this gap, we propose to design and evaluate the effectiveness of an educational intervention for Malaysian nurses to improve their awareness and practice in detecting and managing mistreatment of older people.

The study

Aims

This study aims to design and evaluate the effectiveness of an educational intervention for Malaysian nurses to improve their awareness and practice in detecting and managing mistreatment of older people.

Objectives

- To design and evaluate the effectiveness of an educational intervention (face-to-face teaching [Intervention] vs. educational video [Comparison]) among nurses [Population] in improving knowledge, detection and management of suspected elder abuse and neglect [Outcome].
- To explore nurses’ views and understanding about elder abuse, their barriers to reporting, their needs and expectations of the intervention programme.

Design/methodology

The Improving Nurses’ dEtection and managEment of eDer abuse and neglect (I-NEED) trial is a multi-site, single-blinded, three-armed, cluster randomized controlled trial with a 6-month follow-up period (Figure 1). This study proposes to evaluate the effectiveness of continuous nursing education (CNE), face-to-face intensive training programme (ITP) and an educational video on the detection and management of elder abuse and neglect for community nurses and registered nurses (RNs).

Study settings

Eligible community nurses and RN working in government health clinics across all seven districts in the state of Negeri Sembilan will be recruited to participate in the study. Negeri Sembilan is a state located approximately 70 km southwest of the capital city of Kuala Lumpur. This state has one of the highest percentages of older people in the country, standing at 5.7% (Department of Statistics Malaysia 2010). The seven districts in Negeri Sembilan will be divided into six clusters for this study based on geographical proximity and administrative division.

Participants

The inclusion criteria for the participants include the following: community nurses and RNs aged 18 years and above and those with working experience of more than 6 months who have not attended any educational programme on the detection and management of elder abuse and neglect prior to recruitment. Nurses with less than 6 months of working experience and/or who have attended such programmes will be excluded. Once eligible subjects are identified, they will be invited to participate in the baseline data collection.

Sample size calculation

The sample size was estimated based on the primary outcome of this study: the improvement in nurses’ knowledge on detection and management of EAN. To detect an increase in the proportion of nurses reporting knowledge improvement from 25% (based on a previous pilot survey) in the control group to 60% for the intervention group at 6 months, an estimated sample size of 108 is required, based on 80% power at 5% significance level. To account for clustering effects from randomized district, we chose a moderate intra-cluster correlation coefficient of 0.05 using previous estimates from studies conducted using the same type of clinical setting, the design effect is estimated to be 2.95 if 40 participants can be recruited from each district. This increased the sample size to 318. In addition, a further 20% attrition rate is expected over 6 months, thus, the final sample size required from six clusters was 382 nurses, with an average of 64 nurses per district.

Randomization and allocation concealment

To limit the risk of spill over effects in health clinics in a district, a cluster randomized controlled trial will be conducted using districts as randomization units. Randomization will be performed at the district level to either intervention arm A, B or the control group using a computer-generated random number sequence. All six clusters are included for the unrestricted randomization procedure. The statistician not involved in the recruitment of
participants performed the procedure and will advise the study coordinator of all districts’ allocations. Eligible nurses in the district were randomly selected based on the sampling frame provided by the state department of health. Baseline assessments of the nurses will be completed before random district allocation is determined.

**Blinding**

Due to the nature of the intervention, study participants could not be blinded. Therefore, blinded research nurses will assess outcomes to minimize bias. Participants will be reminded to not inform the assessor of their allocation status.

**Study phases**

The study will be conducted in three phases built on the premise of the Precede–Proceed Model (Green & Kreuter 2005). The model has been widely used to plan, design, implement and evaluate programmes for health education policy, curriculum development and training for healthcare professionals. The five phases in the Precede component outlines a diagnostic planning process to assist in the development of targeted health programmes while the four phases in the Proceed component guides the implementation and evaluation of the designed programme, including their knowledge, beliefs, attitudes and values (Tones & Green

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**Figure 1** Overview of I-NEED study flow. Adapted from the CONSORT 2010 flow diagram.
2004). In this study, the diagnostic and needs assessment consistent with the Precede component will be conducted in Phase 1 and 2. The Proceed component will be encapsulated in the intervention (Phase 3) and evaluation.

**Phase 1 – needs assessment**
The first phase (Phase 1) will constitute the social assessment and epidemiological assessment in line with the model underpinning this study. The aims are to: (1) obtain insight into the barriers, issues and challenges that may impact the detection and management of EAN and identify the needs, strengths and resources available to both nurses and the older population in the community (Green & Kreuter 2005); and (2) identify the behavioural and environmental determinants related to nurses’ behaviour.

Phase 1 will involve focus group discussions (FGDs) at baseline among nurses recruited from various levels including community nurses, RN, sisters and matrons. The study will be explained prior to obtaining written consent from the participants. The purposes of the FGDs are to: (1) identify curriculum content required to design a training module for nurses on the detection and management of elder abuse and neglect; and (2) identify existing policies or procedures to facilitate detection and management of elder abuse. Each FGD will consist of 8-10 participants per group facilitated by a moderator using a topic guide on concepts of elder abuse and neglect in Malaysia, barriers to identifying EAN cases, feasibility of elder abuse and neglect detection and management training and content of the curriculum. Each session will begin with engagement questions, open-ended (exploration) questions and exit questions. Each session is estimated to last about 45-90 minutes. The number of FGD sessions to be conducted will be based on data saturation. All sessions will be audio-recorded with consent of the participants for transcription and analyses. A scribe will also sit in the session to assist in taking notes during the discussion. Outcomes from this FGD will guide the development and design of the training module for elder abuse and neglect management in Phase 2.

The FGD sessions will be complemented with the 62-item ELder AbUSe Questionnaire (ELSE-Q) encompassing demographic information, working experience, knowledge, attitude, perception, subjective norms, personal experience, perceived behaviour and intention and effective behaviour towards elder abuse. Three case scenarios on elder abuse and neglect will be presented to assess the nurses’ knowledge, awareness, course of action and reporting.

Two bilingual, native speakers will undertake the forward translation of the ELSE-Q, from the original English version to Malay. Both drafts will be reviewed and reconciled to produce a single Malay version. The backward translation from Malay to English will be performed by another two bilingual and fluent translators, blinded to the original English version, to ensure that the translated version is conceptually equivalent to the original version, clear and easily comprehensible. The reliability and validity of the Malay ELSE-Q will be tested during a pre-test.

In efforts to maintain research integrity and rigour, researcher triangulation will be employed to reduce bias and improve reliability of results. The FGD sessions will be moderated by the researchers to include two primary care specialists, a public health specialist, a medical officer and a graduate nurse. All researchers will independently analyse the data from the FGDs.

**Phase 2 – development of the training module**
The aim in Phase 2 is to develop a training module based on findings from Phase 1 combined with evidence-based recommendations from literature on effective educational interventions in the detection and management of elder abuse and neglect. This phase will span over approximately 6 months. A systematic review will be conducted to identify previous research that evaluated the effectiveness of educational intervention on elder abuse and neglect.

The training module is a combination of approaches including face-to-face teaching workshops and video recording. The modules will be developed based on the Geriatrics, Palliative Care and Interprofessional Teamwork Curriculum (2000) (U.S. Department of Veteran Affairs 2012) and adapted to the Malaysian culture and setting. The modules will include the definition and risk factors of elder abuse and neglect, detecting early signs and symptoms, types of assessments and interventions. The content, intensity, frequency and duration of the programme will be identified based on findings from Phase 1. The module will be designed by the researchers and an expert panel comprising of nurses, primary care physicians, public health specialists and policy makers.

Two primary care specialists, one public health specialist and nursing lecturer from UMMC will conduct train-the-trainer sessions for facilitators consisting of health nurses appointed from each district with more than 10 years working experience and postbasic training in care of older people. The train-the-trainer workshop aims to equip participants with an understanding of the basic concepts of ageing and elder abuse and neglect, how to identify cases of elder maltreatment, develop a nursing care plan and communicate effectively with older patients. These facilitators will conduct the ITP in Phase 3 with a facilitator to participant ratio of 1:10. Two sessions will be conducted.
The first session will include a 1-day workshop which emphasizes theories and concepts of EAN, subjective and physical assessment on EAN (known as I-DARE process, an acronym in the Malay language for *Intervensi Dera Abai Warga Emas*), simulation activities and role-play for the facilitators. The second session will be conducted as a 1-day session to explain the role of the facilitator/trainer and standard operating procedures when detecting and handling EAN cases. In this session, facilitators are encouraged to provide constructive feedback to participants on their understanding of the concepts covered in the training module.

**Intervention**

*Phase 3 – Implementation of the I-NEED Programme*

The educational and ecological assessments embedded in the Precede-Proceed model will guide this final phase incorporating predisposing, enabling and reinforcing factors to motivate participants to translate their knowledge, beliefs, values and attitudes towards detection and management of elder abuse and neglect into action.

Phase 3 will evaluate the effectiveness of the education programme in improving the knowledge and management of elder abuse and neglect among participating nurses. Participants will be randomly allocated into the control group who will attend a two-hour face-to-face continuous nursing education (CNE) (usual care), intervention group A who will receive the usual care and intensive training programme (ITP) or intervention group B who will receive the usual care, ITP and an educational video.

The intervention for both groups will take place over a course of 2 days. The training module developed in Phase 2 will constitute the ITP in both intervention arms. The 3-module ITP will comprise of a theoretical and practical session on the definition, prevalence, types, risk factors, signs and symptoms of elder abuse and neglect and effective communication with older adults (Module 1), physical assessment of elder abuse (Module 2) and a session on assessment, communication and management of a case of elder abuse and neglect (Module 3). Intervention arm B will receive an hour long educational video as reinforcement 3 months after the ITP. Vignettes will be developed by a production house to deliver the ITP module contents in an interactive manner.

Participants will complete the Elder Abuse and Neglect (EAN) questionnaire at four time points; pre-intervention, immediate postintervention, 3- and 6-month follow-up. The 72-item EAN questionnaire will comprise of demographic information, working experience, knowledge, attitudes, perceptions, subjective norms, perceptions of political will, value support, personal experiences and perceived behaviours towards elder abuse in addition to case scenarios.

**Control group**

Participants in the control arm will receive a 2-hour session of CNE. This session will cover general nursing care for older people and policies related to older people.

**Outcomes**

*Primary outcomes*

The primary outcomes of this study will measure the improvement in knowledge and awareness after completion of the EAN posttraining compared with pre-test level. The development of the training module on the identification, assessment and intervention on elder abuse and neglect in addition to the process evaluation at the end of the intervention will constitute the qualitative outcomes. Participants will complete the EAN questionnaire at four time points; at baseline, immediate postintervention, 3- and 6-month follow-up.

*Secondary outcomes*

The secondary outcome of this study will include the number of elder abuse and/or neglect cases identified and managed during the follow-up period. Documentation of identified and referred cases on suspected EAN will be ongoing and collected on a weekly basis.

**Process evaluation**

A formal process evaluation will be conducted via FGDs with key stakeholders including government health officials, matrons, study co-ordinators, project officers and study participants immediately after and 3 months postintervention to assess the implementation of the intervention, to identify enablers and barriers in the detection and management of elder abuse and neglect cases and evaluate the sustainability of the programme. A standard interview guide will be developed and administered to ensure consistency and all sessions will be audio-recorded for transcription and analyses. Cost-effectiveness of the intervention will be evaluated using the total cost of the intervention. This process will constitute the administrative and policy assessment inherent in the Proceed component model employed in this study. A standard operating procedures (SOP) on detection and management of elder abuse will be drawn to be implemented at the state level as a result of the evaluation.
Data analysis

All recordings will be transcribed verbatim. A qualitative data software, NVivo 8.0 will be used for data management (QSR International Pty Ltd. 2008). In line with the grounded theory approach, data collection, coding and analysis will occur immediately, simultaneously and throughout (Strauss & Corbin 1998). Analysis will be carried out using constant comparison methods where open, axial and selective coding techniques will be employed (Glaser & Strauss 1967). Axial coding will refine the existing list of categories by deleting or merging certain categories. Selective coding will explore the relationships between categories and subcategories to develop a possible framework linking the categories. Emerging themes identified will be discussed among research team members to increase credibility of the findings.

For quantitative data analysis, categorical data will be summarized as proportions while continuous variables as mean (SD). Associations between categorical variables will be tested using the Chi-square test. Repeated measures will be performed adjusting for baseline variables. All analyses will be conducted according to the intention-to-treat principle (Lachin 2000). Statistical significance is set at \( P < 0.05 \) and differences in proportions with 95% confidence intervals (CI) between the two groups will be reported at the follow-up time points. Data will be double-entered and analysed with SPSS 22.0 (IBM Corp. 2012).

Ethical considerations

Research Ethics Committee approval was obtained from the medical ethics committee of the tertiary care centre in October 2013 (MEC Ref No. 1024/2013) and the national institutional review board (NMRR-13-1625-17969) in February 2014. The researchers will ensure that the ethical standards are adhered to during and after data collection. Nurses will be assured that their participation is voluntary and that they can withdraw from the study at any point in the study without any negative repercussions. Participants’ written consent will be obtained prior to commencement of the study and all data will be kept anonymous and confidential. This study was peer-reviewed and awarded funding by the University of Malaya Research Grant (RP001C-13HTM) in May 2013, (FL002-13SBS) in July 2013 and the University of Malaya Grand Challenge Programme: Preventing Elder Abuse and Neglect Initiative (PEACE) (GC001C-14HTM) in September 2014. The study is registered with the International Standard Randomized Controlled Trial Number registry: ISRCTN47326902 (http://www.isrctn.com/ISRCTN47326902).

Validity and reliability

In efforts to maintain research integrity and rigour, researcher triangulation will be employed to reduce bias and improve reliability of results. The FGD sessions in Phase 1 will be moderated by the researchers to include two primary care specialists, a public health specialist, a medical officer and a graduate nurse. All researchers will independently analyse the data generated from the FGDs.

For all quantitative data, the research team will promptly check data collected for accuracy, verify and address any inconsistencies. The trained research staff will contact the participants for data clarification where necessary. In addition, they will perform random data quality audits on the double-entered data to identify missing values or outliers. Data will be cross-checked against original data sources should any ambiguity surface.

Participants in this study will be randomized at the district level using a computer-generated random number sequence to eliminate selection bias. Although the investigators and the study participants will be aware of group allocation due to the nature of the intervention, blinded research nurses will assess the outcomes to minimize bias. Participants will be reminded to not inform the assessor of their allocation status.

Discussion

The outcomes of the I-NEED trial will present valuable evidence garnered from experiences and feedback from managerial level nurses, community nurses and RN during the FGDs. These will contribute to improving existing guidelines and inform healthcare policies and practices for older patients. The training module developed will serve as a module for elder abuse and neglect management for nurses to assess, identify, manage and collectively target those at risk of abuse or need to be protected from further victimization. It will also assist healthcare professionals to identify perpetrators requiring remedial and/or legal action. Identifying the most effective intervention method is a pragmatic approach and should be included in the design of the framework and strategy for elder abuse and neglect management. Identifying and addressing elder abuse cases will enable healthcare professionals like nurses to provide emotional support and enhance the safety and quality of life for older patients. The process evaluation will evaluate and
provide insight into the success of the intervention, identifying enablers and barriers in detecting and managing elder abuse and neglect cases during implementation. If cost-effectiveness is demonstrated, this will potentially result in improvement of quality and cost-effectiveness in geriatric healthcare delivery.

To detect, respond to and prevent elder abuse, healthcare professionals who work with geriatric patients must possess statistically significant knowledge and skills in recognising victims of abuse and being aware of intervention strategies and the relevant protection for older people services and law enforcement authorities for referrals. Educational programmes comprised of continuous education and training, forums, seminars and workshops for healthcare providers, social workers and the community are essential to protect this vulnerable group and contribute to the body of knowledge and resources for screening and prevention of elder abuse and neglect. Both quantitative and qualitative methods with participation from older adults are imperative to improve current services and policies for older people with the aim of improving their safety and quality of life. This requires concerted and coordinated planning, implementation and evaluation to develop a framework that will benefit both patients and healthcare professionals.

**Limitations**

Among the limitations of this study is that blinding of the participants to the intervention is not possible as participants will be aware that they are receiving a certain form of educational intervention, whether face-to-face intensive training programme or an educational video. There is a opportunity that the actual improvement in outcome will be underestimated. In addition, the intervention programme will be conducted among nurses based in publicly funded government clinics in a single state. Future research can include nurses working in the private sector or other states to enhance the generalizability of the study.

The decision to randomize by clusters at the district level and not at the nurses’ level overcomes practical issues such as the need to recruit participants without affecting their routine clinical service and prevent risk of contamination problems between clusters. Appropriate adjustments for clustering will be performed during analyses.

**Conclusion**

This study will provide empirical support for the development, effectiveness and feasibility of an educational intervention for nurses on the detection and management of elder abuse and neglect in multi-ethnic Asian populations. The proposed study will potentially guide the improvement of existing guidelines and healthcare policies and practices for the detection and management of elder maltreatment and contribute to enhancing the safety and quality of life of older adults at risk.

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**Conflict of interest**

No conflict of interest has been declared by the author(s).

**Author contributions**

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (http://www.icmje.org/recommendations/)]:

- substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

**References**


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