Educational intervention for primary care doctors to improve knowledge and skills in elder abuse and neglect: A quasi-experimental prospective study

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Abstract:

Background: Primary care doctors are easily accessible for elderly people in the community. These clinical encounters provide a window of opportunity for elderly people with experience of abuse and neglect to receive the intervention. Yet, evidence reported that primary care doctors might not have adequate knowledge and skills to provide appropriate support. Research is needed to determine if educational training results in improving the knowledge and skills of primary care doctors in intervening in elder abuse and neglect. This study aims to assess the effectiveness of an intensive educational programme designed to increase awareness, skills and practice in detecting and management of elder abuse and neglect among primary care doctors in Malaysia.

Methods: A quasi-experimental study design with a twelve-month follow-up period to compare outcomes of doctors receiving the intervention with a control group. This study consists of three phases: needs assessment (Phase 1), training module development (Phase 2) and implementation and evaluation of the training module (Phase 3). The participants will be recruited from the state of Negeri Sembilan and Penang. The intervention involves an interactive workshop with an expert-delivered presentation on the topic, simulation activities, role play, reflection sessions and group discussions. The primary outcome measures the change in knowledge of elder abuse and neglect, attitude, and self-reported practice related to elder abuse management. Evaluation will be measured at baseline, immediately post-intervention, six-month and twelve-month follow-up.

Discussion: The findings of this study will provide evidence concerning the effectiveness of the intensive educational intervention in identifying and management of elder abuse and neglect by primary care doctors.

Trial registration: ISRCTN Trial Registry reference no. 30445

Keywords: elder abuse, neglect, primary care, doctors, quasi-experimental

Background:

Recognizing and managing elder abuse is paramount to protecting the increasing proportion of elderly in our population. [1] With the increase in the population of older adults over the age of 65, it is expected that there will be an increased need for professionals skilled in working with older adults and with elder victims of abuse and neglect. Identifying victims of abuse, maltreatment and violence may be challenging. [2, 3] Researchers found that knowledge of elder abuse as well as an understanding of the ageing process, communication skills, assessing community resources, interpersonal skills, ethical and legal issues, and supervisory skills were the main knowledge gaps identified by service providers.[3] In Malaysia, there is no training in elder abuse and neglect issues and there is also no mandatory reporting law for elder abuse and neglect. [1, 4] Thus professionals must be able to identify abusive situations and are confident in their management of violence in the elderly population.

The front health care providers such as primary care physicians, emergency physicians, nurses and medical assistants are therefore in an ideal position to engage in early identification, support and referral of persons experiencing elder abuse.[5-7] Literature also stressed the importance of educating professionals on how to recognize, treat and advocate for services for elder abuse.[8] A study done on professional preparedness to address elder abuse and neglect indicate that there is a strong obligation and need for more community-based education and training opportunities for professionals who work and have frequent contact with older adults.[9] This is supported by a study done among health care professionals which showed a positive correlation between an increase in reporting of abuse and an increase in knowledge and education about abuse.[10]

Abuse increases both mortality and morbidity amongst elder people, thus, interventions initiated by the service providers can be important turning points for victims.[11-13] The majority of health care providers have also noticed an improvement in the situation of the victims of elder abuse and neglect after intervention by physicians.[7] An interventional study in the United Kingdom on the effect of education on knowledge and management of elder abuse showed that there was a lack of knowledge in identification and good management in dealing with elder abuse.[14] It was also found that educational seminars were superior to printed material in increasing knowledge

and good management in this field. [14]. The purpose of this study is to develop and evaluate the training materials tailored for the service providers in health, particularly primary care doctors. It is part of the ongoing efforts to prevent violence against older persons and to support and manage older persons experiencing violence that is suitable to local values and the existing health system.

Methods

Study design and setting

This study is designed as a quasi-experimental study with a control group. There will be four measurements (baseline, immediate, six-month and twelve-month post-intervention) to evaluate changes in the participants' knowledge, attitude and practices (Figure 1). The intervention comprises an intensive face-to-face training programme for the intervention group which will consist of primary care doctors. The participants for the intervention group were recruited from the state of Negeri Sembilan, a state in the central zone of Malaysia approximately 70km southwest of Kuala Lumpur, the capital city of Malaysia. The control group consists of primary care doctors in the state of Penang, located in the northern part of Peninsular Malaysia.

Study sample

Universal sampling will be utilised in this study. All doctors practising in the public primary care facilities in the state of Negeri Sembilan and Penang will be invited to participate in this study. These health clinics are under the administrative jurisdiction of the respective State Health Department.

Eligibility criteria

Registered medical officers, with clinical experience of more than two years and who have not attended any educational programme on the detection and management of elder abuse and neglect before recruitment will be included in this study. Once eligible participants were identified, they will be invited to participate in the study.

Ethical approval

Ethical approval for the conduct of the study has been obtained from the following institutional review boards; the Medical Ethics Committee of the University of Malaya Medical Center (MED ID 201401-0686) and the Malaysian Ministry of Health National Medical Research Register (NMRR-13-1456-16443).

Participant information sheets will be disseminated and explained to potential participants. Written informed consent will be obtained from all study participants before the commencement of the study.

Trial registration

The ISRCTN registration for this trial is ISRCTN10580716.

Study phases

Phase 1-Needs assessment

The first phase will constitute a systematic approach to studying the state of knowledge, ability and attitude of the doctors regarding elder abuse and neglect intervention. Important issues and problems faced by primary care doctors will be explored to assist in designing an effective educational programme. Phase 1 will involve in-depth interviews (IDIs) at baseline among primary care doctors. The study will be explained before obtaining written consent from the participants. The information gathered from the IDIs will inform the curriculum content when designing the training module for primary care doctors. The qualitative data will also inform existing policies or procedures involved in the abovementioned topic. Each IDI will be conducted by an interviewer using a topic guide on concepts of elder abuse and neglect, challenges and/or facilitators while identifying elder abuse and neglect cases, the feasibility of elder abuse and neglect detection and management training programme, and the content of the curriculum. Each interview will begin with engagement questions, and exploration questions to explore further into the topic discussed and conclude with exit questions. Each interview session is estimated to last about 45 to 90 minutes. The number of IDI sessions will be determined by data saturation. All sessions will be audio-recorded with consent from the participants for transcription and analyses. The two primary care specialists will independently analyse the data from the IDIs. Inter-rater reliability will be checked. Any disagreement in the coding item will be resolved via discussion.

Phase 2- Development of the Training Module

Phase 2 aimed at developing a training module based on findings from Phase 1 and the literature on effective educational interventions in the detection and management of elder abuse and neglect. A systematic review will be conducted to identify previous

research that evaluated the effectiveness of the educational intervention on elder abuse and neglect.

Intervention

The training module will use multi-modality education approaches to enhance learning [15, 16]. This may include an expert-delivered presentation on the topic, simulation activities and group discussions. The modules will include the definition and risk factors of elder abuse and neglect, ways of detecting early signs and symptoms, and types of assessment and intervention. The content, intensity, frequency and duration of the program will be identified based on findings from Phase 1. The module will be designed by the researchers with input from an expert panel comprising primary care physicians, public health specialists, nursing administrators, police, social workers and policymakers.

Two primary care specialists and one public health specialist from the University of Malaya Medical Centre will conduct train-the-trainer sessions for facilitators consisting of medical officers appointed from each zone of the intervention site. The train-the-trainer workshop aims to equip future facilitators with an understanding of the basic concept of ageing, elder abuse and neglect, identification of elder abuse cases, and develop the patient-flow plan and ways of communicating effectively. It will also ensure the provision of standardized information to the participants should the study be conducted over separate sessions to cater for the availability of the participants. In Phase 3, these facilitators will conduct the actual educational intervention with a facilitator-to-participant ratio of 1:10.

Phase 3 – Implementation of the Education Programme

Phase 3 will involve the implementation of the education programme and evaluation of the effectiveness of the programme delivered in changing the knowledge and skills of elder abuse and neglect management among the primary care doctors. The primary care doctors in the intervention group will receive a theoretical and practical training session known as Supporting Family Doctors to Address Elder Abuse (SAFE) which will comprise the following:

Module 1: Perception of older adults and ageing

Module 2: Understanding ageing

Module 3: Overview of elder abuse: Definition and clinical presentation

Module 4: Elder abuse identification and management: Communication with older adults and principles of management

The Awareness, Detection and Management of Elder Abuse and Neglect Questionnaire (ADMEAN) were developed to measure the effectiveness of the education intervention. The development of this questionnaire is based on the theory of planned behaviour. This includes demographic information, working experience, knowledge, attitude, perception, subjective norms, personal experience, perceived behaviour and intention and effective behaviour towards elder abuse. Five case scenarios on elder abuse and neglect will be presented to assess the doctors' knowledge, awareness, course of action and intention to report.

Participants will complete the ADMEAN questionnaire at four-time points; pre-intervention, immediately post-intervention, 6-month and 12-month follow-up. The control group of primary care doctors will also answer the ADMEAN questionnaire but will only undergo the educational training once the evaluation is completed at twelve months.

Outcomes

Primary outcomes

The primary outcomes measured will be the change in knowledge, attitude and self-reported practices relating to elder abuse and neglect. A self-administered questionnaire will be utilised and administered before the educational intervention (baseline), immediately after the intervention, 6 months and 12 months thereafter. Another primary outcome will be the development of the training module on the identification, assessment and intervention of elder abuse and neglect in addition to the process evaluation at the end of the intervention will constitute the qualitative outcomes.

Secondary outcomes

The secondary outcome of this study will comprise the number of elder abuse and/or neglect cases identified and managed during the follow-up period. Data for recognition and documentation of identified cases will be ongoing and collected every month.

Process evaluation

A formal process evaluation will be conducted via FGDs with key stakeholders including government health officials, study coordinators, project officers and study participants immediately after the intervention to assess the implementation of the intervention, identify enablers and barriers 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 analysis.

Data analyses

All recordings will be transcribed verbatim. A qualitative data software, NVivo 10.0 will be used for data management [18]. Analysis of the qualitative data will be carried out using constant comparison, examining the codes and collated data to identify significant broader patterns of meaning (potential themes) [19]. Emerging themes identified will be discussed among the research team to increase the credibility of the findings.

Categorical data will be summarised as proportions while continuous variables as mean (SD) (range). Associations between categorical variables will be tested with the Chi-square test. Repeated measures will test for the statistical difference before and after intervention and between the intervention and control groups. Multivariate analyses will be performed adjusting for baseline variables. All analyses will be conducted according to the intention-to-treat principle [20]. Statistical significance is set at $p < 0.05$ and mean 95% confidence intervals (CI) or differences in percentage between the two groups will be reported at the follow-up time points. Data will be entered and analysed with SPSS 22.0 [21].

Discussion

This study will determine the effectiveness of intensive short-term educational training in improving the knowledge and skills of primary care doctors in the intervention of elder abuse and neglect. To the best of our knowledge, this is the first educational intervention on elder abuse and neglect using a quasi-experimental approach in the country.

The findings of the proposed study will provide valuable information regarding the local scenario of elder abuse and neglect intervention and whether intensive training

will have an impact on health care providers. If found to be effective, this educational intervention could be adapted to be used nationwide to support primary care doctors when managing elder abuse and neglect.

Strengths of the study – Plan, Reflective, Action Framework. The study will be fully supported at the state level which ensures the full participation of the primary care doctors. Development of the educational training module will involve various stakeholders and would increase ownership of the module. Instruments (e.g. ADMEAN questionnaire) are developed based on an established theoretical framework (Theory of planned behaviour). The study will help to establish a clinical practice guideline for the detection and management of elder abuse and neglect.

There are several limitations of this study. It is not possible to conduct this study as a randomised control trial as contamination of study participants is high. This is mainly because it is common for primary care doctors in a public health care setting to provide services across several districts in the state. Blinding is also not possible in this kind of intervention as the researchers and the participants are aware of the intervention allocation. However, to minimize this bias, the outcomes being measured were made as objectively as possible.

Conclusion

We believe that our study will make a significant contribution to the development of the medical curriculum on elder abuse and neglect, the advancement of geriatric care, and protecting the rights and welfare of older persons in the country.

References:

1. Esther E, Shahrul K, Low W: **Elder abuse: A silent cry**. *Malaysian Journal of Psychiatry* 2006, **14**(1):29-34.
2. Schmeidel AN, Daly JM, Rosenbaum ME, Schmuch GA, Jogerst GJ: **Health care professionals' perspectives on barriers to elder abuse detection and reporting in primary care settings**. *Journal of elder abuse & neglect* 2012, **24**(1):17-36.
3. Shetterley K, Malone D, Poon L: **Assessing training needs of geriatric service providers: program rational and focus group outcomes**. *Educational Gerontology: An International Quarterly* 1998, **24**(5):425-46.
4. World Health Organization Centre For Health Development Kobe Japan: **National Report on Violence and Health, Malaysia**. 2006.
5. Harrell R, Toronjo CH, McLaughlin J, Pavlik VN, Hyman DJ, Dyer CB: **How geriatricians identify elder abuse and neglect**. *The American journal of the medical sciences* 2002, **323**(1):34-8.

6. Kennedy RD: **Elder abuse and neglect: the experience, knowledge, and attitudes of primary care physicians**. *Family medicine* 2005, **37**(7):481-5.
7. O'Brien J, Riain A, Collins C, Long V, O'Neill D: **Elder abuse and neglect: A survey of Irish General Practitioners**. *Journal of elder abuse & neglect* 2014, **26**(3):291-99.
8. Payne BK: **Training adult protective services workers about domestic violence: training needs and strategies**. *Violence against women* 2008, **14**(10):1199-213.
9. Vansburger E, Curtis V, Imbody B: **Professional preparedness to address abuse and neglect among elders living in the rural south: Identifying resiliency where stress prevails**. *Ageing Int* 2012, **37**(3).
10. Vida S, Monks RC, Des Rosiers P: **Prevalence and correlates of elder abuse and neglect in a geriatric psychiatry service**. *Canadian journal of psychiatry Revue canadienne de psychiatrie* 2002, **47**(5):459-67.
11. Richardson B, Kitchen G, Livingston G: **The effect of education on knowledge and management of elder abuse: a randomized controlled trial**. *Age and ageing* 2002, **31**(5):335-41.
12. Baker M: **Elder maltreatment: risk, vulnerability, and early mortality**. *Journal of the American Psychiatric Nurses Association* 2007, **12**(6):313-21.
13. Dong X, Simon M, Mendes de Leon C, Fulmer T, Beck T, Hebert L, Dyer C, Paveza G, Evans D: **Elder self-neglect and abuse and mortality risk in a community-dwelling population**. *Jama* 2009, **302**(5):517-26.
14. Lachs MS, Williams CS, O'Brien S, Pillemer KA, Charlson ME: **The mortality of elder mistreatment**. *Jama* 1998, **280**(5):428-32.
15. Shefet D, Dascal-Weichhendler H, Rubin O, Pessach N, Itzik D, Benita S, Ziv A: **Domestic violence: a national simulation-based educational program to improve physicians' knowledge, skills and detection rates**. *Medical teacher* 2007, **29**(5):e133-8.
16. Shuval K, Berkovits E, Netze D, Hekselman I, Linn S, Brezis M, Reis S: **Evaluating the impact of an evidence-based medicine educational intervention on primary care doctors' attitudes, knowledge and clinical behaviour: a controlled trial and before and after study**. *Journal of Evaluation in Clinical Practice* 2007, **13**:17.
17. Crosby R, Noar SM: **What is a planning model? An introduction to PRECEDE-PROCEED**. *Journal of public health dentistry* 2011, **71 Suppl 1**:S7-15.
18. QSR International Pty Ltd.: **NVivo Qualitative Data Analysis Software Version 8**. In., Version 8 ed. Victoria, Australia; 2008.
19. Strauss A, Corbin J: **Basics of Qualitative Research**. Thousand Oaks, CA: Sage; 1998.
20. Lachin JM: **Statistical Considerations in the Intent-to-Treat Principle**. *Controlled clinical trials* 2000, **21**(3):167-89.
21. IBM Corp.: **IBM SPSS Statistics for Windows version 22.0**. In. Armonk, NY: IBM Corp; 2013.