

# BMJ Open Development of skills-based competencies for forensic nurse examiners providing elder abuse care

Janice Du Mont,<sup>1,2</sup> Daisy Kosa,<sup>1,3</sup> Sheila Macdonald,<sup>3</sup> Shannon Elliot,<sup>1,3</sup> Mark Yaffe<sup>4,5</sup>

**To cite:** Du Mont J, Kosa D, Macdonald S, *et al.* Development of skills-based competencies for forensic nurse examiners providing elder abuse care. *BMJ Open* 2016;**6**:e009690. doi:10.1136/bmjopen-2015-009690

► Prepublication history and additional material is available. To view please visit the journal (<http://dx.doi.org/10.1136/bmjopen-2015-009690>).

Received 12 August 2015  
Revised 5 November 2015  
Accepted 16 November 2015



CrossMark

<sup>1</sup>Women's College Research Institute, Women's College Hospital, Toronto, Ontario, Canada

<sup>2</sup>Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario, Canada

<sup>3</sup>Ontario Network of Sexual Assault/Domestic Violence Treatments Centres, Toronto, Ontario, Canada

<sup>4</sup>Department of Family Medicine, St. Mary's Hospital Centre, Montreal, Quebec, Canada

<sup>5</sup>Department of Family Medicine, McGill University, Montreal, Quebec, Canada

## Correspondence to

Dr. Janice Du Mont;  
[janice.dumont@wchospital.ca](mailto:janice.dumont@wchospital.ca)

## ABSTRACT

**Objective:** As a critical step in advancing a comprehensive response to elder abuse built on existing forensic nursing-led hospital-based programmes, we developed a list of skills-based competencies for use in an Elder Abuse Nurse Examiner curriculum.

**Participants and setting:** Programme leaders of 30 hospital-based forensic nursing-led sexual assault and domestic violence treatment centres.

**Primary and secondary outcome measures:** 149 verbatim recommendations for components of an elder abuse response were identified from a systematic scoping review. In 2 online Delphi consensus survey rounds, these components of care were evaluated by an expert panel for their overall importance to the elder abuse intervention under development and for their appropriateness to the scope of practice of an elder abuse nurse examiner. The components retained after evaluation were translated into skills-based competencies using Bloom's Taxonomy of Learning and, using the Nominal Group Technique, were subsequently reviewed and revised by a subset of members of the expert panel in a consensus meeting.

**Results:** Of the 148 recommendations evaluated, 119 were rated as important and achieved consensus or high level of agreement. Of these, 101 were determined to be within the scope of practice of an Elder Abuse Nurse Examiner and were translated into skills-based competencies. Following review and revision by meeting experts, 47 final competencies were organised by content into 5 metacompetencies: documentation, legal and legislative issues; interview with older adult, caregiver and other relevant contacts; assessment; medical and forensic examination; and case summary, discharge plan and follow-up care.

**Conclusions:** We determined the skills-based competencies of importance to training forensic nurse examiners to respond to elder abuse in the context of a hospital-based intervention. These findings may have implications for violence and abuse treatment programmes with a forensic nursing component that are considering the provision of a dedicated response to the abuse of older women and men.

## Strengths and limitations of this study

- The consensus methods used to evaluate components of an elder abuse response and their appropriateness to the scope of practice of an Elder Abuse Nurse Examiner constitute relatively 'low' level evidence. However, these methods are appropriate where, as in this instance, there is a lack of available evidence. The internal and external validity of this study was improved by using available checklists and guidelines for the use of the Delphi method and by recruiting an expert panel with extensive leadership and practical experience in responding to the abuse of women and men.
- The list of skills-based competencies developed reflects a potentially expanded role for existing forensic nurse examiners in Ontario, Canada and will form the basis of an Elder Abuse Nurse Examiner curriculum, a critical tool in developing a hospital-based response to elder abuse that utilises forensic nurse examiners.
- Our findings may have implications for violence services globally that include or are planning to include a response to elder abuse in their programmes.

## BACKGROUND

Elder abuse, constituting neglect, financial, psychological, physical and/or sexual abuse,<sup>1</sup> is a serious public health concern associated with significant morbidity (eg, anxiety, depression), hospitalisation and mortality.<sup>2-4</sup> Elder abuse is defined by Justice Canada as the "violence, mistreatment or neglect that older adults living in either private residences or institutions may experience at the hands of their spouses, children, other family members, caregivers, service providers or other individuals in situations of power or trust. [Elder abuse] also includes older adults abused by non-family members who are not in a position of power or trust" (ref. 1, p.1). There is a complex interplay of factors such as cognitive impairment, behavioural

and psychiatric disorders, low functional status, poor physical health, low-income status, history of abuse, and few social supports that can increase the risk of different types of elder abuse.<sup>5–7</sup> Victims of elder abuse may therefore have significant needs, requiring psychological, health and social services delivered by professionals with specialised training and expertise.<sup>8</sup>

Within the Canadian province of Ontario there are 35 hospital-based Sexual Assault/Domestic Violence Treatment Centres (SA/DVTCs), primarily led by forensic nurse examiners (referred to as Sexual Assault Nurse Examiners or SANEs). These forensic nurse examiners are nurses with specialised training in the collection of medicolegal evidence, as well as the provision of health care to victims of acute sexual assault and intimate partner violence.<sup>9–10</sup> A 2012 needs assessment survey by Du Mont *et al*<sup>11</sup> concluded that these centres were ideally positioned to respond to elder abuse, with 81% of programme leaders favouring expansion of their programme mandates to address the maltreatment of older adults. The majority (78%) stated that their programme was prepared or somewhat prepared to begin the process of taking on this critical public health problem.<sup>11</sup> Although there is no standardised programme-wide provision of dedicated care for elder abuse at these centres, they typically provide psychosocial, medico-legal, and health services to address the multifaceted sequelae of intimate partner violence and sexual assault of women, men, and children of all ages, and refer to other relevant services in the community as required (eg, long-term counselling, housing, legal).

The efficacy of forensic nurse examiners in addressing the needs of victims of sexual assault and intimate partner violence has been recognised globally.<sup>9–10–12–16</sup> Although they possess much of the required expertise to respond to elder abuse, particularly in the area of medico-legal documentation and health care provision,<sup>17–18</sup> the study by Du Mont *et al*<sup>11</sup> revealed that in order to expand SA/DVTC mandates to include dedicated care to address all types of elder abuse, further training of SANEs would be required. Identified elder abuse training needs included knowledge of legislation and reporting requirements, resources in the community, capacity, consent, forensic assessment of the older adult and power of attorney. In addition, almost all (91%) programme leaders noted that a coordinated community response that included resources internal and external to the hospital would be essential for any implementation of an elder abuse intervention.<sup>11</sup>

Building on the infrastructure and expertise of Ontario's network of 35 SA/DVTCs, we undertook a multi-phase, multimethod programme of research to develop a comprehensive response to elder abuse (here-to-fore referred to as the 'elder abuse intervention'). As a first step, we conducted a systematic scoping review of English language scholarly and grey literatures in order to extract and synthesise actionable and applicable recommendations for components of elder abuse care deemed relevant

to a hospital-based intervention with formalised links to the community.<sup>19</sup> Recommendations were extracted from 68 distinct elder abuse responses and then collated, coded and categorised into themes. These recommendations were further reviewed by the research team for relevancy to a forensic nursing-led hospital-based response (see online supplementary appendix 1). Only a small fraction of the responses from which the recommendations for the components of care were drawn had been pilot tested or evaluated.<sup>19</sup>

Following the systematic scoping review, a Delphi consensus study was conducted, in which a multidisciplinary, intersectoral panel rated the importance of possible participating professionals and respective roles and responsibilities to the model elder abuse intervention under development in a 1-day in-person consensus meeting and subsequent online survey.<sup>20</sup> The panel was comprised of key stakeholders involved in identifying, documenting and addressing elder abuse, setting elder abuse policy and citizens: academics (eg, with research expertise in elder abuse, mental health, geriatric medicine, nursing care, health services evaluation, and diversity and equity issues); decision-makers (eg, representing provincial and federal governments); healthcare providers (eg, including the professions of nursing, social work, geriatric medicine, family medicine and occupational therapy); service providers from the community and legal sectors (eg, home-based healthcare, finance, law enforcement, legal advocacy, and the office of the public guardian and trustee); and older adults (eg, aged 60 or older and potential consumers of elder abuse services).<sup>20</sup> Although the possible roles and responsibilities of each potentially participating professional were delineated generally in this study, the panel identified that discipline-specific expertise would be necessary to determine which precise components of care were within the scope of practice of each professional. This additional step was determined to be especially critical for the forensic nurse examiner, who is central to the intervention being developed, as some of the roles and responsibilities rated important are new to their role in Ontario and would require additional training.

The objectives of the current study then were to have forensic nurse examiner service experts: (1) evaluate the importance of the recommended components of care to the elder abuse intervention under development; (2) determine which components of care would fall within the scope of practice of an Elder Abuse Nurse Examiner, a forensic nurse examiner with additional training to respond to elder abuse; and (3) review and refine skills-based competencies developed from the Elder Abuse Nurse Examiner components of the intervention. Competencies are "what a successful learner should know and be able to do upon completion of a particular program or course of study" (ref. 21, p.15). The competency-based approach to education and training has been shown effective in increasing the clinical performance of healthcare providers in caring for older adults.<sup>22–23</sup>

## METHODS

### Expert panels

Thirty-three programme leaders from the Ontario Network of SA/DVTCs were invited to participate on an expert panel for an online Delphi consensus survey (the two centres that exclusively see paediatric patients were not included in this study). Programme leaders are generally specially trained nurses such as SANEs, although they can also be social workers. They have extensive clinical experience in delivering hospital-based violence and abuse services and are the key knowledge users who would ultimately oversee any implementation of the elder abuse intervention under development. Following the online Delphi consensus surveys, a subset of 12 programme leaders was also invited to participate as an expert panel in person in a 1-day consensus meeting in Toronto. These members were selected based on geographical representation within Ontario and the cultural diversity of the populations served by their centres (eg, rural, urban, Aboriginal).

### Delphi consensus survey

The modified Delphi consensus survey was conducted in accordance with available checklists and guidelines.<sup>24 25</sup>

#### Round 1

Round 1 of the Delphi consensus survey contained 148 verbatim recommendations for components of care extracted from the systematic scoping review (see online supplementary appendix 1). For each item, respondents were asked to indicate how strongly they agreed or disagreed that the component of care, where relevant, appropriate and with consent, was important to a comprehensive hospital-based elder abuse intervention. Responses were made using a Likert scale of 1–5 (1=strongly disagree, 2=somewhat disagree, 3=neutral, 4=somewhat agree, 5=strongly agree). The extracted recommendations were organised thematically: (1) initial contact (7 recommendations); (2) capacity and consent (8 recommendations); (3) interview with older adult, suspected abuser, caregiver and/or other relevant contacts (67 recommendations); (4) assessment: physical/forensic, mental, psychosocial and environmental/functional (42 recommendations); and (5) care plan (24 recommendations).<sup>19</sup> The survey also included space at the end of each theme to record any comments about the recommendations for care. Information collected from respondents at the start of the survey included their age, education, professional training, years in current role, provision of direct clinical care to adults 65 years or older, type of clinical care provided to clients 65 years or older and self-rated level of expertise in the elder abuse field.

The survey was hosted on Survey Monkey, a third party website and online survey administration software (<http://www.surveymonkey.com>). The survey was pilot tested by two of the members of the research team (DK, SE) for clarity of recommendations and instructions,

and ease of survey interface, before an email containing a link to it was sent to all 33 SA/DVTC programme leaders. Round 1 of the survey was conducted over approximately 5 weeks: 1 week for pilot testing, 3 weeks for acquiring responses from the expert panel and 1 week for summarising results.

#### Round 2

In round 2, the online survey contained a full list of components of care and their mean rating from the first round; however, only those recommendations for which consensus was not achieved in the first round were re-rated for their importance in the second round. All recommendations were also rated as to whether they were potentially within the scope of practice of an Elder Abuse Nurse Examiner ('yes' or 'no'). Round 2 was conducted over 4 weeks. Two email reminders to complete the second survey and containing a link to the survey were sent to the 33 SA/DVTC programme leaders at 1 and 2 weeks from the initial email to them.

### Analysis

Descriptive statistics were calculated for information collected about the expert panel and Delphi survey response data from rounds 1 and 2, including the mean rating and IQR for each recommendation.<sup>26</sup> After completion of both rounds, items rated as important (mean Likert rating 4+) and which achieved consensus (IQR <1) in either the first or second round<sup>27</sup> or a high level of agreement (a predetermined threshold of 80% of Likert ratings were 4+) in the second round were retained for a final list of recommended components of care.<sup>28 29</sup>

If an item from this list was determined by at least 60% of respondents as potentially within the scope of practice of an Elder Abuse Nurse Examiner, it was translated into a skills-based competency.

### Consensus meeting

Following the second Delphi consensus survey round, the Elder Abuse Nurse Examiner relevant components of care were further organised thematically and translated into skills-based competencies with the aid of a specialist in education and curriculum development. Using Bloom's Taxonomy of Learning,<sup>30</sup> the care components were framed in outcome-oriented language and reviewed for their observability and measurability by members of the research team<sup>31</sup> with expertise in forensic nursing and the development of competencies and curricula (eg, SANE training, *Addressing Past Sexual Assault in Clinical Settings*).<sup>32 33</sup>

In a 1-day consensus meeting, we then utilised the Nominal Group Technique to review the competencies, in an approach similar to those employed in previous successful competency development studies.<sup>34 35</sup> Participants were divided into two workgroups composed of six members, each of which reviewed a different half set of the competencies developed. Each competency set

had a workgroup facilitator and a note taker, so that all discussion was captured and the facilitator could ensure maximal interaction within the workgroup. On completion, the workgroups rotated competency sets and reviewed and refined the revisions to the competency set made by the other workgroup. The full panel of experts then reviewed and resolved any areas of concern. Based on the results of the meeting, the research team generated the final list of competencies and metacompetencies<sup>31</sup> to be used to guide the construction of an Elder Abuse Nurse Examiner curriculum.

## RESULTS

### Characteristics of the Delphi consensus survey expert panel

Of the 33 programme leaders invited to form the expert panel, 30 responded affirmatively and participated in one or both of the Delphi consensus surveys.

Most (80%) of the 30 panellists were aged 46 years and older (see [table 1](#)).

Approximately half (55%) reported having a bachelor's degree as their highest level of education achieved and the majority (83%) identified as nurses; of these, 83% had undergone SANE training. Three in five (60%) panellists reported more than 10 years of experience in their current role as programme leaders, and the overwhelming majority (90%) also provided direct care to clients: emergency healthcare (81%), consultation with other health providers (81%), follow-up care (78%), crisis counselling (74%) and short-term counselling (44%). Almost all (93%) reported having a mid to high level of knowledge and/or expertise related to elder abuse.

### Evaluation of components of care for importance to the elder abuse intervention

Overall, 148 recommendations were rated in rounds 1 and 2 of the Delphi consensus survey, of which 119 (80%) were rated important and achieved consensus/high level of agreement (see [table 2](#)).

In round 1, 98 recommendations were rated important and had an IQR <1. Fifty were re-rated for importance in round 2, of which 21 were rated important and had an IQR <1 and/or 80% of ratings were 4+. Of those which were rated important and achieved consensus/high level of agreement, 101 (85%) were deemed potentially within the scope of practice of an Elder Abuse Nurse Examiner by at least 60% of respondents. However, in some written-in comments on the survey concerns were expressed regarding the need for additional training in delivering certain components of care. One nurse with over 10 years' experience as a programme leader commented, "Our lack of knowledge in the area [regarding certain capacity and consent items], limits our ability to respond fully to this...as we are not currently trained for that...would need additional training, then institution specific protocols to be followed." Another programme leader stated, "Wow, I'm having an

**Table 1** Delphi consensus survey expert panel characteristics

Characteristic	n	(%)
Age group, in years	n=30	
20–30	0	0
31–45	6	20
46–60	20	67
61+	4	13
Education, highest level achieved	n=29	
Hospital-based nursing programme	1	3
Community college	4	14
Bachelor's degree	16	55
Master's degree	7	24
Associate degree	1	3
Profession	n=29	
Social worker	5	17
Nurse	24	83
Nurse practitioner	2	8
Sexual assault nurse examiner	20	83
Years worked in current role at centre	n=30	
<1	0	0
1–5	4	13
6–10	8	27
10+	18	60
Provide direct clinical care to clients seen at centre 65 or older	n=30	
No	3	10
Yes*	27	90
Emergency healthcare	22	81
Consultation with other health providers	22	81
Follow-up care	21	78
Crisis counselling	20	74
Short-term counselling	12	44
Level of knowledge and/or expertise related to elder abuse	n=30	
Low level	2	7
Mid level	21	70
High level	7	23

\*Categories are not mutually exclusive.

identity crisis—this looks like the creation of an entirely new role.”

Eighteen components of care were rated important and achieved consensus/high level of agreement, but were determined by the expert panel as outside the scope of practice of an Elder Abuse Nurse Examiner. These components of care were most commonly part of the domains of 'capacity and consent' (50% of items) and 'care plan' (39% of items), and included items such as 'apply for an emergency guardianship order for the older adult' and 'notify and consult all members of the team on drastic changes in the older adult's situation' (see online supplementary appendix 1). Comments on the surveys suggested that these and some other items deemed important overall to the intervention were the role of another professional within the model: "We need to be careful about what role we are actually taking on—most of these sound like the work of the Most Responsible Physician or primary care/gerontologist, etc.”



**Table 2** Summary of results from the Delphi consensus survey rounds 1 and 2

Thematic category (from systematic scoping review)	Items rated as important and consensus and/or high level of agreement achieved*			Items rated as within the scope of practice of an Elder Abuse Nurse Examiner†
	Round 1	Round 2	Overall	
Initial contact	5/7	1/2	6/7	6/6 (100%)
Capacity and consent	1/8	3/7	4/8	2/4 (50%)
Interview with older adult, suspected abuser, caregiver and/or other relevant contacts	49/67	8/18	57/67	51/57 (89%)
Assessment: physical/forensic, mental, psychosocial and environmental/functional	24/42	5/18	29/42	28/29 (97%)
Care plan	19/24	4/5	23/24	14/23 (61%)

\*Number of items rated important (mean rating 4+) and achieved consensus in round 1 or 2 (IQR <1) and/or high level of agreement in round 2 (80% of ratings 4+)/number of items rated.

†Number of items rated as within the scope of practice of an Elder Abuse Nurse Examiner (by at least 60% of respondents)/number of items rated important and achieved consensus and/or high level of agreement.

### Development of skills-based competencies from Elder Abuse Nurse Examiner components of care

The 101 Elder Abuse Nurse Examiner components of care were translated into 65 draft competencies organised thematically for later ease of review in the consensus meeting: (1) interview with older adult, caregiver and other important contacts (19 competencies); (2) legal and legislative issues (7 competencies); (3) screening for indicators of elder abuse (6 competencies); (4) medical/forensic assessment (16 competencies); (5) environmental/functional assessment (4 competencies); (6) clinical formulation (3 competencies); (7) documentation (1 competency); and (8) discharge planning and follow-up care (9 competencies).

After extensive discussion, revision and refinement by the consensus meeting expert panel, a list of 47 final skills-based competencies was produced. These competencies were organised by content into five metacompetencies:<sup>31</sup> documentation, legal and legislative issues (3 competencies); interview with older adult, caregiver and other relevant contacts (16 competencies); assessment (1 competency), medical and forensic examination (17 competencies); and case summary, discharge plan and follow-up care (10 competencies; see [box 1](#)). An example of an issue raised during discussion with the panel was the importance to medical and forensic examination of understanding what is developmentally and physically a normal variant of ageing versus an indicator of abuse (eg, temporal wasting as an indicator of being severely malnourished).<sup>36 37</sup> Further, it was noted that this may be particularly challenging in cases where the victim has dementia and cannot clearly articulate her or his history.<sup>38</sup>

Over the course of competency development, 44 of the 101 components of care were directly reworded into competencies; 1 component of care was split into two competencies as more than one skill was indicated; 56 components of care were collapsed into the above 44 competencies because they were either redundant, very

similar or too detailed; and 1 competency was added (ie, 'testify in guardianship and other legal proceedings').

### DISCUSSION

It is increasingly recognised globally that in order to address the complex needs of older women and men who experience elder abuse, multidisciplinary and coordinated care responses are critical.<sup>39–41</sup> Despite this recognition, few such interventions have emerged.<sup>42 43</sup> To address the gap in policy and practice in Canada, we have been advancing a multiphase, multimethod programme of research to develop, implement and evaluate a comprehensive hospital-based nurse examiner elder abuse intervention in Ontario. In an important step in the elder abuse intervention research programme, this study engaged 30 experienced experts in the review and evaluation of recommended components of care and development of skills-based competencies for use in an Elder Abuse Nurse Examiner curriculum.

Although most components of care were rated important and achieved consensus and/or a high level of agreement (80%, 119/148), there were two thematic categories from which a disproportionate number of components were dropped from the elder abuse intervention under development: 'capacity and consent' and 'assessment: physical/forensic, mental, psychosocial and environmental/functional'. For example, 'assess the older adult for changes from previous level in mental status and/or neurological examination', and 'if the older adult's initial mental status examination shows incapacity, perform neuropsychological testing' may have been seen by some experts as too far outside the scope of the comprehensive intervention being developed. Other components of care such as, 'determine who, within the older adult's family, do members turn to in time of conflict', and 'Determine the importance of spirituality to the older adult' may have been seen as invasive.

**Box 1** List of skills-based competencies for an Elder Abuse Nurse Examiner in Ontario, Canada*Documentation, legal and legislative issues*

1. Generate an accurate, timely and complete record of all observations and care provided
2. Determine if there is a substitute decision-maker (SDM) if the older adult is not capable of providing consent to care and, if the SDM is the suspected abuser or no SDM is appointed, initiate process to have SDM appointed
3. Report suspected abuse(r) where required

*Interview with older adult, caregiver and other relevant contacts*

4. Assess the capacity of the older adult to consent to care and obtain consent
5. If the older adult is found to be capable of consent, but *does not* consent to proceed with care, document decline of services and propose future contact
6. Explain the parameters of confidentiality
7. Assess immediate risk to older adult
8. Determine the perspective of the older adult on presenting concerns
9. Clarify the expectations of the older adult regarding care and involve the older adult in care planning
10. Determine and address unique needs of the older adult that may impact the way in which care is delivered or accepted
11. Determine the primary caregiver
12. Determine the role expectations of the older adult for self and caregiver
13. Determine the formal and informal supports of the older adult
14. Determine if caregiver/other important contacts understand the needs of the older adult
15. Determine how caregiver/other important contacts cope with the responsibility of caring for the older adult
16. Determine any longstanding negative dynamics in relationships among the older adult and persons with whom there is an expectation of trust
17. Determine if there have been any recent crises in the life of the older adult
18. Ask the older adult directly about all types of abuse
19. Determine if there are barriers to disclosure of abuse

*Assessment*

20. Assess for indicators of neglect, financial, psychological, physical and sexual abuse

*Medical and forensic examination*

21. Describe the general demeanour and behaviour of the older adult
22. Describe the physical appearance and hygiene of the older adult
23. Describe the ability of the older adult to carry out basic activities of daily living and limitations in functional history
24. Identify need for assistive devices for the older adult and determine if assistive devices have been appropriately provided and are in working condition
25. Assess the living situation of the older adult
26. Document the health history of the older adult
27. Evaluate the need for X-ray/imaging and laboratory test studies for the older adult, and refer to physician where indicated
28. Describe any signs in the older adult of inadequate nutrition, dehydration, improper medication administration or substance abuse
29. Perform tests to rule out the presence of sexually transmitted infections in the older adult
30. Explain to the older adult the options for reporting suspected abuse to the police and preservation of examination findings
31. Conduct a general survey and head to toe assessment of the older adult and describe visible injuries as well as complaints of pain and tenderness
32. Describe the circumstances of injuries, whether intentional or unintentional
33. Describe indicators of strangulation and make a recording of the voice of the older adult
34. Photograph injuries and other findings on the body of the older adult
35. Collect physical evidence from the body of older adult
36. Obtain toxicology samples for testing from the older adult
37. Maintain chain of custody in transfer of forensic evidence collected to the police

*Case summary, discharge plan and follow-up care*

38. Gather explanations from caregiver/other important contacts for documented injuries or other physical findings
39. Determine any discrepancies and inconsistencies in the accounts of abuse obtained from the caregiver/other important contacts and the older adult and other information sources
40. Create a case summary of the information gathered from the interviews and assessment
41. Educate the older adult about elder abuse
42. Arrange for immediate basic needs of the older adult
43. Inform the older adult about and facilitate referral to local community resources
44. Develop and implement a safety plan
45. Develop and implement a plan for follow-up care
46. Participate on case review team
47. Testify in guardianship and other legal proceedings

A small minority (18/119) of retained components of care were evaluated as outside the scope of practice of an Elder Abuse Nurse Examiner. These care items, most commonly found within the domains of 'capacity and consent' (eg, 'apply for an emergency guardianship order for the older adult' and 'notify and consult all members of the team on drastic changes in the older adult's situation') could nonetheless be delivered by other trained professionals that will comprise the elder abuse intervention. In an earlier study, we determined that a large intersectoral network of multidisciplinary professionals is required to ensure that all recommended components of the elder abuse intervention are delivered in a comprehensive and coordinated manner.<sup>20</sup> In this regard, as a future step in our research, interprofessional and intersectoral agreements will be established and pilot tested to ensure the feasibility of this type of collaboration.<sup>44 45</sup>

Eighty-five per cent (101/119) of the retained components of care, however, were seen by the majority of respondents as within the scope of practice of an Elder Abuse Nurse Examiner, demonstrating the perceived versatility of such a professional in delivering multifaceted care to older women and men. It was noted on the surveys that although the delivery of many of the endorsed components of care is already being addressed to some extent in the current SANE curriculum in Ontario,<sup>32</sup> some items are completely new and would require additional training. In perhaps the largest departure from the current nurse examiner role in the acute care model, Elder Abuse Nurse Examiners will need to participate on a case review team comprised of their multidisciplinary colleagues and intersectoral collaborators.<sup>20</sup> This will require training in working collaboratively to assess risk and formulate longer term welfare plans.<sup>46-48</sup>

The 101 Elder Abuse Nurse Examiner components of care were translated into 47 competencies that will underpin an Elder Abuse Nurse Examiner curriculum to be developed for use by SA/DVTCs. Focused in five overarching areas of competence, these competencies reflect an expanded role for existing forensic nurse examiners in Ontario and confirm their centrality in providing elder abuse care within a comprehensive hospital-based response. This expanded role was the subject of much discussion in the consensus meeting, where it was noted, for example, that the Elder Abuse Nurse Examiner would need to be trained to utilise and interpret health history to identify pertinent negative patterns indicative of elder abuse in conjunction with input from other healthcare professionals and intersectoral collaborators.<sup>49 50</sup> Our findings may have implications for the more than 750 forensic nurse examiner programmes across the globe.<sup>16</sup>

### Limitations

A strength of this study is the multimethod approach taken to develop competencies. Several steps were taken to mitigate the potential risks of bias inherent in the Delphi process. The study was conducted in accordance with

guidelines for Delphi consensus survey research.<sup>24 25 27</sup> To reduce the risk of attrition bias,<sup>27</sup> we sent several email reminders at regular intervals, yielding a high retention rate (96%) between rounds.<sup>27 51</sup> To minimise risk of misinterpretation of recommendations,<sup>27</sup> we pretested the questionnaires and provided, when requested by participants, immediate clarification of context, wording and content by email or phone. Such steps usually improve the internal validity of a Delphi study.<sup>52 53</sup> However, the Delphi method itself constitutes relatively 'low' level evidence, as it is expert opinion, with risk for relatively low external validity.<sup>51-53</sup> Nonetheless, the Delphi method is routinely used in situations where there is lack of evidence or very little known. This method has been used successfully in studies focused on defining and understanding elder abuse,<sup>54 55</sup> and the development of competencies for healthcare provider training.<sup>51 56</sup> The external validity of our study was promoted by the diversity and expertise of the members of our panel, as well as by their extensive leadership and practical experience in related clinical work.

### CONCLUSION

This study identified components of a comprehensive elder abuse intervention that would be delivered by a specially trained Elder Abuse Nurse Examiner. Based on these components of care, competencies were developed to form the core of an Elder Abuse Nurse Examiner curriculum being developed,<sup>57</sup> which may be useful to other jurisdictions considering the implementation of forensic nurse examiner elder abuse services. In future research, the consensus methods used in this study could be employed to develop training tools for other professionals who comprise multidisciplinary, intersectoral responses to elder abuse.

**Acknowledgements** The authors would like to thank participating SA/DVTC Program Coordinators/Managers and staff; Stephanie Lanthier for her work on the development of the competencies; and Shirley Solomon, for her support at the consensus meeting.

**Contributors** JDM conceived of and designed the study, supervised the analysis, interpreted the findings, and drafted the manuscript. DK analysed the data and aided in the interpretation of the findings and drafting of the manuscript. SM designed the study, interpreted the findings, and reviewed drafts of the manuscript. SE coordinated the Delphi survey process and reviewed drafts of the manuscript. MY participated in the design of the study and reviewed drafts of the manuscript. All authors read and approved the final manuscript.

**Funding** This project is funded by the Women's Xchange Grant Number: MAR15L1.

**Competing interests** None declared.

**Ethics approval** Women's College Hospital Research Ethics Board, Toronto, Ontario, Canada.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data sharing statement** No additional data are available.

**Open Access** This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>



## REFERENCES

1. *Abuse of older adults: Department of Justice Canada overview paper*. Ottawa, ON: Department of Justice Canada, 2009.
2. Dong X, Simon MA. Elder abuse as a risk factor for hospitalization in older persons. *JAMA Intern Med* 2013;173:911–17.
3. Dong XQ, Simon MA, Beck TT, et al. Elder abuse and mortality: the role of psychological and social wellbeing. *Gerontology* 2011;57:549–58.
4. Dong X. Medical implications of elder abuse and neglect. *Clin Geriatr Med* 2005;21:293–313.
5. Alexandra Hernandez-Tejada M, Amstadter A, Muzzy W, et al. The National elder mistreatment study: race and ethnicity findings. *J Elder Abuse Negl* 2005;21:293–313.
6. Acierno R, Hernandez MA, Amstadter AB, et al. Prevalence and correlates of emotional, physical, sexual, and financial abuse and potential neglect in the United States: the National elder mistreatment study. *Am J Public Health* 2010;100:292–7.
7. Amstadter AB, Begle AM, Cisler JM, et al. Prevalence and correlates of poor self-rated health in the United States: the National elder mistreatment study. *Am J Geriatr Psychiatry* 2010;18:615–23.
8. Bond C. Education and a multi-agency approach are key to addressing elder abuse. *Prof Nurs* 2004;20:39–41.
9. Du Mont J, Macdonald S, White M, et al. Client satisfaction with nursing-led sexual assault and domestic violence services in Ontario: a descriptive analysis. *J Forensic Nurs* 2014;10:122–34.
10. Du Mont J, Parnis D, with the Ontario Network of Sexual Assault Care and Treatment Centres. *An overview of the sexual assault care and treatment centres of Ontario [Revised and Expanded]*. Report prepared for the Child and Woman Abuse Studies Unit, London Metropolitan University and the World Health Organization, 2002.
11. Du Mont J, Mirzaei A, Macdonald S, et al. Perceived feasibility of establishing a comprehensive program of dedicated elder abuse care at Ontario's hospital-based sexual assault/domestic violence treatment centres. *Med Law* 2014;33:189–206.
12. Stermac LE, Stirpe TS. Efficacy of a 2-year-old sexual assault nurse examiner program in a Canadian hospital. *J Emerg Nur* 2002;28:18–23.
13. Du Mont J, White D. *The uses and impacts of medico-legal evidence in sexual assault cases: a global review*. Geneva: World Health Organization, 2007.
14. Littel K. Sexual Assault Nurse Examiner (SANE) programs: improving the community response to sexual assault victims. *OVC Bull* 2001;NCJ 186366:1–19.
15. Campbell R, Townsend SM, Long SM, et al. Responding to sexual assault victims' medical and emotional needs: a national study of the services provided by SANE programs. *Res Nurs Health* 2006;29:384–38.
16. SANE Program Listing. 2015. <http://www.forensicnurses.org/?page=A5>
17. Burgess AW, Clements PT. Elder abuse: a call to action for forensic nurses. *J Forensic Nurs* 2006;2:110–11.
18. Burgess AW, Hanrahan NP, Baker T. Forensic markers in elder female sexual abuse cases. *Clin Geriatr Med* 2005;21:399–412.
19. Du Mont J, Macdonald S, Kosa D, et al. Development of a hospital-based elder abuse intervention: an initial systematic scoping review. *PLoS ONE* 2015;10:e0125105.
20. Du Mont J, Kosa D, Macdonald S, et al. Determining possible professionals and respective roles and responsibilities for a comprehensive elder abuse intervention: a Delphi consensus survey. *PLoS ONE* 2015;10:e0140760.
21. Accreditation criteria for schools of public health. Washington, DC: Council on Education for Public Health, 2005.
22. Galambos C, Curl A. Developing gerontological competency: a curriculum approach. *Gerontol Geriatr Educ* 2013;34:309–21.
23. Popham W, Lindheim E. Competency-based education. *Eng Educ* 1978;68:428–32.
24. Sinha IP, Smyth RL, Williamson PR. Using the Delphi technique to determine which outcomes to measure in clinical trials: recommendations for the future based on a systematic review of existing studies. *PLoS Med* 2011;8:e1000393.
25. Hasson F, Keeney S, McKenna H. Research guidelines for the Delphi survey technique. *J Adv Nurs* 2000;32:1008–15.
26. Holey EA, Feeley JL, Dixon J, et al. An exploration of the use of simple statistics to measure consensus and stability in Delphi studies. *BMC Med Res Methodol* 2007;7:52.
27. Hsu CC, Sandford BA. The Delphi technique: making sense of consensus. *Pract Assess Res Eval* 2007;12:1–8.
28. Rodríguez-Mañas L, Féart C, Maññ G, et al. FOD-CC group (Appendix 1). Searching for an operational definition of frailty: a Delphi method based consensus statement: the frailty operative definition-consensus conference project. *J Gerontol A Biol Sci Med Sci* 2013;68:62–7.
29. Staggars N, Gassert CA, Curran C. A Delphi study to determine informatics competencies for nurses at four levels of practice. *Nurs Res* 2002;51:383–90.
30. Anderson LW, Krathwohl DR, Airasian PW, et al. *A Taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives*. New York, NY: Pearson, Allyn & Bacon, 2001.
31. Frank JR, Danoff D. The CanMEDS initiative: implementing an outcomes-based framework of physician competencies. *Med Teach* 2007;29:642–7.
32. The Ontario Network of Sexual Assault/Domestic Violence Treatment Centres. Sexual Assault Nurse Examiner (SANE) training [E-learning]. [updated 2008]. <http://client.dlc-inc.com/WCH/SADVTC/login.php>.
33. Mason R, Du Mont J, Macdonald S. Addressing past sexual assault in clinical settings [E-learning]. <http://dveducation.ca/sexualassault/>.
34. Calhoun JG, Ramiah K, Weist EM, et al. Development of a core competency model for the master of public health degree. *Am J Public Health* 2008;98:1598–607.
35. Collaboration C. Development of core competencies for an international training programme in intensive care medicine. *J Intensive Care Med* 2006;32:1371–83.
36. Brown K, Muscari ME. *Quick reference to adult and older adult forensics: a guide for nurses and other health care professionals*. New York, NY: Springer Publishing Company, 2010.
37. Nerenberg L, Koin D. *Identifying and responding to elder and dependent adult abuse in health care settings: guidelines for California health care professionals*. California, USA: California Clinical Forensic Medical Training Center, 2004.
38. Quinn MJ, Tomita SK. *Elder abuse and neglect: causes, diagnosis, and intervention strategies*. 2nd edn. New York, NY: Springer Publishing Co., 1997.
39. Brown K, Streubert GE, Burgess AW. Effectively detect and manage elder abuse. *Nurse Pract* 2004;29:22–7.
40. Teaster PB, Wangmo T. Kentucky's Local Elder Abuse Coordinating Councils: a model for other states. *J Elder Abuse Negl* 2010;22:191–206.
41. Schneider DC, Mosqueda L, Falk E, et al. Elder abuse forensic centers. *J Elder Abuse Negl* 2010;22:255–74.
42. Ploeg J, Fear J, Hutchison B, et al. A systematic review of interventions for elder abuse. *J Elder Abuse Negl* 2009;21:187–210.
43. Navarro AE, Wilber KH, Yonashiro J, et al. Do we really need another meeting? Lessons from the Los Angeles County Elder Abuse Forensic Center. *Gerontologist* 2010;50:702–11.
44. Du Mont J, Macdonald S, Yaffe M, et al. *Building intersectoral partnerships to improve the health services response to elder abuse [Planning Grant]*. Ontario, Canada: Canadian Institutes of Health Research, 2013.
45. Du Mont J, Macdonald S, Yaffe M. *Advancing a model elder abuse intervention: knowledge exchange, translation, and transfer [Planning and Dissemination Grant]*. Ontario, Canada: Canadian Institutes of Health Research, 2015.
46. Lachs MS, Pillemer K. Elder abuse. *Lancet* 2004;364:1263–72.
47. Gray-Vickrey P. Combating abuse, part I. Protecting the older adult. *Nursing* 2000;30:34–8.
48. *Abuse of vulnerable adults*. Kentucky, USA: Kentucky Medical Association, n.d.
49. *Procedural guidelines for handling elder abuse cases*. Hong Kong: Social Welfare Department, 2006.
50. *Elder sexual assault. Technical assistance manual for older adult protective services*. Pennsylvania, USA: Pennsylvania Coalition Against Rape, 2007.
51. Mead D, Moseley L. The use of the Delphi as a research approach. *Nurse Res* 2001;8:4–23.
52. Baker J, Lovell K, Harris N. How expert are the experts? An exploration of the concept of 'expert' within Delphi panel techniques. *Nurs Res* 2006;14:59–70.
53. Boukaidi R, Abdoul H, Loustau M, et al. Using and reporting the Delphi method for selecting healthcare quality indicators: a systematic review. *PLoS ONE* 2011;6:e20476.
54. Daly JM, Jogerst GJ. Definitions and indicators of elder abuse: a Delphi survey of APS caseworkers. *J Elder Abuse Negl* 2005; 17:1–19.
55. Katz RV, Smith BJ, Berkey DB, et al. Defining oral neglect in institutionalized elderly: a consensus definition for the protection of vulnerable elderly people. *J Am Dent Assoc* 2010;141:433–40.
56. Masud T, Blundell A, Gordon AL, et al. European undergraduate curriculum in geriatric medicine developed using an international modified Delphi technique. *Age Ageing* 2014;43:695–702.
57. Du Mont J, Macdonald S, Yaffe M. *Elder abuse nurse examiner curriculum development and evaluation [Grant]*. Ontario, Canada: Women's Xchange, 2015.