Developing the KAMA instrument (knowledge and management of abuse)

BARBORA RICHARDSON, GINETTE KITCHEN, GILL LIVINGSTON

Camden and Islington NHS Mental Health Trust, Department of Psychiatry and Behavioural Sciences, Archway Campus-Holborn Union Building, Whittington Hospital, Highgate Hill, London N19 5LW, UK

Address correspondence to: B. Richardson. Fax: (+44) 207 288 3411. Email: b.richardson@ucl.ac.uk

Abstract

Objective: to develop and validate an instrument which measures applied knowledge and practice regarding identification and management of potentially abusive situations in staff who work with older vulnerable inpatients. One of the anticipated uses will be to measure any change produced by attending an educational intervention designed to improve management of abuse. A vignette-based instrument was chosen to measure applied knowledge and practice over other methods of assessments which were felt not to be practical or provide too much cueing for the volunteering staff.

Method: a parallel form vignette-based instrument was developed so that not only baseline knowledge but also change in knowledge could be measured. Abusive scenarios were adapted from researchers’ clinical practice and from the literature. Advice from senior nurses about the suitability of the vignettes for ward and community based staff was obtained and the instrument was piloted. Staff working with older people and employed by health or social services working in inner London completed the questionnaire.

Results: 79 (92%) of the eligible staff took part in this study. All completed the instrument. Version A of the Knowledge and Management instrument was answered by 39 staff, whilst 40 answered version B. The proportion of qualified and unqualified staff as well as the proportion employed by health or social services was similar for each parallel version of the instrument. The measure of internal consistency Cronbach’s alpha was 0.89 for version A and 0.79 for version B. Parallel form reliability coefficient was calculated as 0.82, indicating that the two versions of the Knowledge and Management instrument perform similarly. Measures for concurrent validity according to years of experience and professional education also proved significant. Inter-rater reliability was calculated at 0.98 (P=0.01). Test-retest reliability at 0.69 (P=0.01) indicated that the instrument is stable yet sensitive to change.

Conclusion: this instrument is a valid assessment tool that can be used to identify gaps in applied knowledge and management in potentially abusive situations in older people and allow knowledge in this field to be built on.

Keywords: validation of knowledge, management of abuse, instrument, older people

Introduction

One in five men and one in three women who reach the age of 65 in the UK today can expect to require 24-hour residential care [1]. Elders enter residential or nursing home care because of cognitive impairment, mobility problems and physical illness. Residential care facilities provide a supervised and protective setting for people who are vulnerable to exploitation by others. People without qualifications or experience may currently be employed as carers in these homes, with little introduction to the philosophy of caring for vulnerable older people, standards of care that are expected of them and what to do if they witness an abusive situation. Although qualified health personnel will have more training, there is little in the medical and nursing curricula that highlights abuse of older people.

The evidence to date suggests that abuse may occur to a disproportionate extent in institutional settings. For example Pillemer et al. [2] surveyed 577 randomly selected staff working in nursing homes. Thirty-six percent reported observing physical abuse and 81% psychological abuse. As staff may be reluctant to report abusive incidents the true rates within institutions are probably even higher.
In a review of abuse in institutions, Garner and Evans [3] conclude that all carers need to be taught the professional skills of caring for cognitively impaired individuals. This may seem obvious, but there has been little work on identifying what the gaps are in individuals’ knowledge and skills and how these can be addressed successfully.

There is progress however in agreeing standards of care. ‘No Secrets’ published by the Department of Health [4] includes definitions of physical, psychological, sexual and financial abuse (see Table 1) and advises that NHS trusts develop multi-agency guidelines aimed at recognition and management of abuse of older people. These are for all staff and should encompass clearly laid out standards of care and guidelines about what to do if these are breached.

One of the obstacles in providing effective education to staff is lack of information about their baseline knowledge in this area. The minimum requirements include knowing what standards of care are acceptable, how to identify abuse and the appropriate response.

There are, at present, no validated instruments which measure the baseline knowledge regarding abuse of older vulnerable people or changes that are made after a targeted educational intervention. The instrument described in this study was developed to address this and was used to examine the effect of education in staff caring for older people [5].

Aims

This study aimed to develop an assessment tool with satisfactory psychometric properties for qualified and unqualified staff working with vulnerable adults – the knowledge and management of abuse (KAMA). This instrument should:

1. Be acceptable, so that qualified and unqualified health and social services staff would complete it.
2. Measure baseline knowledge and management of abuse.
3. Measure change in knowledge and management.

Methods

The use of vignettes

Not all skills can be taught or examined using real situations because of ethical and practical constraints. Vignettes can be used not only to assess knowledge, but also to examine the reasoning behind an answer. Almquist et al. [6] examined the predictive value of a written knowledge test based on vignettes and an actual medical performance compared to a videotaped consultation. The score on the written knowledge test was comparable to the score obtained when real consultations were assessed: Pearson’s correlation coefficient ranged from 0.43 to 0.56, suggesting that vignettes may be equivalent to clinical situations.

Hayes et al. [7] examined the usefulness of case analysis to evaluate students who attended a one-year course in medical ethics. They conclude that vignette based instruments are useful in identifying the areas of knowledge that improve following an educational intervention. Vignettes avoid cueing of staff, whilst providing a practical way to assess applied knowledge.

Development of the vignettes

The types of abuse detailed in ‘No Secrets’ (Table 1) formed the basis of the situations tested. Realistic clinical situations were then devised on those themes, to cover types of potentially abusive situations that staff may encounter. The vignettes were developed to test not only background knowledge, but also a change in knowledge following an intervention. To avoid practice effect of administering one identical instrument twice, parallel forms were devised (parallel vignettes A and B are presented in full in Appendix 1).

Selection of staff

All staff eligible to attend a training session on protecting vulnerable adults who work for the local trust were contacted and invited to participate in the study.

Analysis

Data were entered into SPSS-PC.

Reliability methods

Internal consistency was measured by comparing the relationship between the total score and individual item scores of the vignettes using Cronbach’s alpha. Split half...
reliability was measured by comparing the scores from the one selected half to the rest of the items. Alternate forms reliability was calculated for the two parallel versions A and B. Inter-rater reliability was examined by calculating an agreement coefficient Cohen's kappa between two independent raters. Test retest reliability was calculated using Pearson's coefficient to compare scores of instruments administered at two different times to the same participant. The mean time from the first to the second administration was 29 days.

Validity methods
Content validity was discussed with a panel of experts consisting of two senior nurses and two senior doctors to establish appropriate coverage of the subject matter. They were also asked to comment on the face validity of the instrument, they considered if the scenarios described abusive situations clearly, without using the word abuse and thus avoiding cueing the participants. Concurrent validity was calculated using Pearson’s correlation coefficient when examining the correlation between total instrument score and years of experience and Mann–Whitney when examining the relationship between total score and whether staff were qualified or unqualified.

Scoring of the KAMA instrument
Standard answers were developed to the instrument based on ‘No Secrets’ policy. Individual points were given equal weighting and there was no negative marking. Answers that scored positively for each of the instruments are presented in Appendix 1. The total possible score from the form of instrument B was higher than A, and so total scores are expressed in percentages.

Results
Eighty-six staff were approached by the author after initially consenting to take part. Seventy-nine completed the instrument. Thirty-nine staff members completed version A of the parallel KAMA instrument, and 40 completed version B.

Table 2. Demographic characteristics of participants according to the type of parallel KAMA.

<table>
<thead>
<tr>
<th></th>
<th>Parallel form A</th>
<th>Parallel form B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean years of experience</td>
<td>12.7 (SD 8.6)</td>
<td>10.9 (SD 9.1)</td>
</tr>
<tr>
<td>Gender (% female)</td>
<td>32 (80.0%)</td>
<td>29 (74.4%)</td>
</tr>
<tr>
<td>Place of work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital: Social services</td>
<td>15: 24</td>
<td>13: 27</td>
</tr>
<tr>
<td>(38.5%: 61.5%)</td>
<td>(32.5%: 67.5%)</td>
<td></td>
</tr>
<tr>
<td>Grade of staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualified nurses</td>
<td>14 (35.0%)</td>
<td>15 (38.5%)</td>
</tr>
<tr>
<td>Unqualified staff</td>
<td>22 (55%)</td>
<td>21 (53.8%)</td>
</tr>
<tr>
<td>Other</td>
<td>4 (10.0%)</td>
<td>3 (7.7%)</td>
</tr>
</tbody>
</table>

SD stands for standard deviation. There were no differences between the groups.

Demographic variables
Table 2 summarises demographic characteristics of the participants. There were no statistical differences between the staff who were randomly allocated to fill in instrument A or B. As expected, most of the participating staff were female.

Acceptability
The overall completion rate was 79 (92%) of the original 86 staff members who consented to complete the instrument. The seven non-completers dropped out before seeing the instrument. All staff who started to complete the instrument finished it. One of the non-completers was a qualified nurse, with the rest being evenly divided between social workers and unqualified staff.

Reliability
Internal consistency: The mean total score for questionnaire A was 14.2 (SD 7.7) and for questionnaire B 16.0 (SD 6.5). The Cronbach’s alpha for all of the participants was calculated as 0.89 for version A and 0.79 for version B.

Split-half reliability: For version A was 0.82 and 0.72 and for version B was 0.70 and 0.65. The overall correlation between the split halves were 0.85 for version A and 0.61 for version B.

Parallel form reliability: The correlation coefficient between the total scores for versions A and B was 0.84.

Inter-rater reliability: Two raters scored 27 of the instruments independently; two tailed Cohen’s kappa correlation coefficient was 0.98 (P=0.01).

Test-retest reliability: Correlation coefficient was 0.69 (P=0.01).

Validity
Concurrent validity: Scores on the KAMA instrument were compared with years of experience. In version A, the correlation was 0.46 (P=0.01) and in version B was 0.44 (P=0.006). The mean score was significantly associated with whether or not the participants were qualified or were care assistants (version A; Z=4.4, P<0.001, version B; Z=3.5, P<0.001).

Discussion
This is the first published study regarding the development of a tool for assessment of knowledge and management of potentially abusive situations in older people. Both parallel versions A and B of KAMA were...
found to be acceptable to the staff and psychometric evaluation showed that it is valid and reliable.

The number of qualified nurses and unqualified care assistants was sufficient to show that the instrument has satisfactory psychometric properties for both groups of staff. We do not, however, know if the same would be true for other groups of staff (e.g. doctors and social workers).

Since the instrument was developed the United Kingdom Central Council for Nursing, Midwifery and Health Visiting [8] has issued a new position statement changing the guidelines regarding covert medication. It stresses that a decision to administer covertly can be made when the patient is not capable of informed consent but must only be made in the best interests of the patient or client and explains the consent issues that must inform any such decision. The multi-professional team and relatives must be consulted and the decision and the names of all who were involved must be documented in the care plan. The answers for this vignette (see Appendix) are therefore changed in line with this ruling.

The psychometric properties across all of the measurements were satisfactory and are similar to established instruments. For example, our correlation coefficients are comparable with other psychometric scales such as the Mini-Mental State Examination [9]. Similarly, both years of experience and qualifications were highly significantly correlated with the scores on the instrument. This is what we would have expected, as both of these parameters should be related to knowledge and experience.

The 'No Secrets' [4] publication strongly advises development of locally applicable guidelines as well as educational intervention aimed at improving the working knowledge of staff. Educational interventions just like any other interventions need to be evidence based. This valid and reliable instrument can be used to map out the existing knowledge and then to evaluate the effectiveness of educational interventions.

Incidents of abusive behaviour towards older inpatients are regularly reported in the national press and are recognised to be a widespread problem. Enquiries have identified lack of knowledge of acceptable standards in care and insufficient working knowledge of what to do as contributing factors that allow abuse to go undetected. Health and social services are purchasing educational courses to remedy this. This study has shown that the KAMA is a valid and reliable instrument. It has been used to map out existing knowledge and change of knowledge of staff who care for older people and thus allow knowledge in this field to be built on [5].

Key points
- There has been no instrument to measure knowledge and management of abuse of vulnerable older people.
- We have developed a vignette-based instrument which multidisciplinary staff find acceptable to use.

The KAMA instrument is a valid assessment tool that can be used to identify gaps in applied knowledge and management in potentially abusive situations in older people and allow knowledge in this field to be built on.

Appendix 1

KAMA instrument versions A

1a. You have returned from annual leave and find that Mrs Donoghue, an 83-year-old lady known to have memory problems, is not doing so well. She has had a urinary tract infection and has become more confused. She now requires practical assistance to get washed and to get out of her chair. As you are helping her, you discover some bruising on her arms. What would you do?

2a. You are doing agency/locum work in a long-stay setting. Miss Lawrie, an 85-year-old wheelchair-bound lady with a diagnosis of dementia asks repeatedly for a drink over a period of several hours. After some time she is told that drinks are only available at mealtimes and other prearranged times. What would you do?

3a. Mr Ferguson, a 67-year-old man whom you know has a paranoid illness, approaches you and tells you that the previous night a member of staff had been rude when they were giving out medication. He heard him shouting at an older lady that he would force her to have extra medication if she did not do as she was told. What would you do?

4a. You know that a senior member of your team is stressed by hard work and is being kept awake by small children at night. You observe him hit back when Miss Hall, an aggressive 88-year-old, hits out. What would you do?

5a. You overhear in the staff canteen a colleague explaining that he cannot stay long on his lunch break because their ward is so short staffed today. He mentions that their ward has therefore had to tie down Mr House, a 79-year-old man who has been going around hitting other residents. What would you do?

6a. Mr Flannagan is a 77-year-old recently widowed man who has been transferred from his home to a residential home. Initially he settled well, although he does not drink over a period of several hours. After some time she is told that drinks are only available at mealtimes and other prearranged times. What would you do?
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7a. You know of Mr Collins, a 75-year-old with dementia in a long-stay unit, who repeatedly tries to stand up but regularly falls down. He has injured himself in the past, but won’t stop. What would you do?

Scoring sheet for KAMA version A: total score = 56


2a. Answer yourself. Speak to the person responsible for Mrs Lawrie and ask them to answer her. Speak to the person in charge. Ascertain if this is a repeated problem e.g. from care plan. Ascertain from senior member of staff if the care plan is being followed. Make sure RMO is aware what has happened. If nothing happens go higher. Total = 7.

3a. Talk to the patient. Record what is said. Speak to a senior colleague. Staff to interview the accused. Record this interview in writing. Speak to witnesses. Record this in writing. If allegations sustained, expect a suspension. Report to key worker or care manager if in the community. Know if it is followed up. Total = 10.


5a. Find out if it is true. Speak to staff. Speak to the patient. Inform the RMO. Inform superior. Inform relatives. Make sure that something is being done about it, e.g. get more staff. Document what has happened. Total = 8.

6a. Talk to the patient. Ensure RMO is informed. Document. See if nobody else can persuade the patient to take the medication e.g. relatives. Make sure the superior knows how it is being done. Refuse to do it yourself, unless a multidisciplinary team and relatives have agreed. Total = 6.

7a. Inform the RMO. Look at the care plan, find out if it is being carried out and that safety is addressed in the care plan. Inform the superior. Ask why – talk to the patient. Discuss with relatives if appropriate. Try to make the patient safe. Fill in an incident form for each fall. Total = 7.

KAMA instrument version B

1b. You hear that Miss Turner, a 66 year old who is manic, saying she saw one of the night staff walking behind another patient and thrusting his pelvis in a sexually suggestive manner. What would you do?

2b. You are doing agency/locum work in a long-stay setting. You hear that Mrs Rose, an 85-year-old lady (who is not one of your patients/clients) shout out repeatedly ‘nurse, nurse’. No one comes for several hours. What would you do?

3b. Mr Daly an 88-year-old man has been recently transferred to your area from a residential home in another county, so as to be near his daughter. You notice a large cut on his forearms. What would you do?

4b. Mrs West, a 90-year-old lady who has been previously continent, has recently had several ‘accidents’ a day and for the past few days her stool has also been loose. She calls out to one of the staff who readily goes to her aid but she hits her. You observe the staff member slap her. What would you do?

5b. You are visiting a unit and are surprised that for the first time you have to wait for the door to be unlocked. You are told that this is because Mr Stone, an 85-year-old man, has been trying to get out. What would you do?

6b. Mrs Gregory, a 68-year-old lady in your care is known to be very anxious, her sleep is poor and she frequently wanders around the unit at night. The staff worry that she may fall. She is prescribed medication to settle her at night and when she takes it, she does have a very restful night and feels much better during the day. In the past she has been refusing to take her tablets at night, but you hear that this has recently improved. You are told that this is because it is added to her bedtime drink. What would you do?

7b. You hear of Mrs Finch, a physically aggressive 82 year old who has been left by herself for 10 hours over the last day in her room, because of short staffing, in order to ensure the safety of other people. What would you do?

Scoring sheet for KAMA version B: total score = 62

1b. Talk to the patient. Record what is being said. Speak to a senior colleague. Senior colleague or the subject to speak to the accused member of staff. Record this. Speak to witness. Record this. If there is substance to the allegation, expect suspension, know how it is investigated. Report to key worker or care manager. See if allegations like this were made in the past. Total = 10.

2b. Answer yourself. Speak to the person responsible for Mrs Rose and ask them to answer her. Speak to the person in charge. Ascertain if this is a repeated problem from the care plan. Make sure that the RMO is aware of what happened. Record this. Total = 7.

3b. Speak to the patient. Speak to other staff and any other witnesses who may know what happened. Produce a written report in the notes. Fill in an incident form. Inform appropriate member of staff. Inform relatives if applicable. If it is thought to be abuse, speak to senior member of staff. If the senior members of staff are not
doing anything about it, find somebody else to speak to. Arrange a physical examination by a doctor and document this. Tell RMO. Inform keyworker or care manager. Make sure the patient is safe. Talk to the previous residential home. Total = 13.

4b. Document what happened. Inform superior. Talk to the member of staff if you are the superior. Fill in an incident form. Make sure that the senior is taking action. If not, how would you get around it? Make sure that the patient is OK. Talk to the patient. Inform relatives if applicable. Total = 9.

5b. Inform RMO. Look at the care plan, find out if it is being carried out and that safety is addressed in the care plan. Inform the superior, are they allowed to lock the unit? Ask why Mr Stone wants to leave. Talk to the patient. Discuss with other staff. Discuss with relatives about the unit being locked. Are there alternatives to locking the unit? Document what you have witnessed. Total = 8.

6b. Talk to the patient. Ensure that the RMO is informed. See if somebody else can persuade the patient to take the medication e.g. relatives. Make sure that superior knows how it is done. Refuse to do it yourself or stop others from doing it, unless multidisciplinary team and relatives agree. Document this. Total = 6.

7b. Find out if it is true. Speak to staff. Speak to the patient. Speak to the RMO. Inform superior. Inform relatives. Make sure that something is being done about it, e.g. get more staff. Make sure that the patient is OK. Document this. Total = 9.

References


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