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The epidemiology of sexual assault of older female nursing home residents, in Victoria Australia, between 2000 and 2015

Daisy Smith[a,*], Nicola Cunningham[b], Melissa Willoughby[a], Carmel Young[a], Morris Odell[b], Joseph Ibrahim[a], Lyndal Bugeja[a]

[a] Department of Forensic Medicine, Monash University, Southbank, Victoria 3006, Australia
[b] Victorian Institute of Forensic Medicine, Clinical Forensic Medicine, Southbank, Victoria 3006, Australia

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ABSTRACT

Sexual assault is the least acknowledged, detected, and reported type of assault against nursing home residents. Nursing home staff are responsible for reporting suspected allegations to the police, who will contact a clinical forensic examiner to conduct a forensic medical examination.

This study examined the epidemiology of sexual assaults of older women (aged 65 years and older) residing in nursing homes in Victoria, Australia, between 2000 and 2015, whose alleged incidents were referred to a clinical forensic examiner for a forensic medical examination. A retrospective analysis of alleged sexual assaults reported to the Clinical Forensic Medicine Unit at the Victorian Institute of Forensic Medicine between 1 January 2000 and 31 December 2015 was conducted.

The study identified 28 forensic medical examinations performed for alleged sexual assault. The alleged victims frequently had cognitive impairments; injuries were infrequent; and alleged victims were cooperative. The forensic medical examiner responded within 72 h of reporting; and frequently noted limitations to physical examinations of the alleged victim.

The actual number of sexual assaults during this period may be masked by under-reporting and, lack of identification by nursing home staff.

There are many unresolved issues including: incidence, levels of reporting, nature of investigations, responses required to assist the victim, and the interventions needed to prevent sexual assault. Better data is vital. This data should be standardized, validated, reliable, and gathered prospectively across Australia and internationally.

1. Introduction

Older people in nursing homes (NH) are a particularly vulnerable population due to their dependency on caregivers, multifaceted health problems [1], and the co-housing of residents, including some with a background of sexual offences [2]. These contributing factors of older person victimization may prevent reporting [3,4] and hinder investigations [3]. In Victoria, Australia, if a sexual assault is suspected or an allegation is received, the approved provider of the NH is responsible for reporting the concerns to police who will contact a clinical forensic medical examiner and request a forensic medical examination (FME) of the alleged victim (AV).

There are two primary aims of a FME following an allegation of sexual assault: (i) to provide appropriate health care to the AV and, (ii) to assist in the investigation of the alleged incident (AI), including documentation of injuries and collection of forensic evidence [5]. Analysis of reported cases of sexual assaults of older persons in NHs will improve our understanding of the vulnerabilities, injuries, and physical and emotional responses that are unique to older victims, and therefore aid in the development of age-appropriate prevention and treatment strategies [5].

This study examines the epidemiology of sexual assaults of older persons (aged 65 years and older) residing in NHs within Victoria, Australia, between 2000 and 2015, whose AIs were referred to a clinical forensic examiner for a FME.

2. Materials and methods

2.1. Study design and setting

This study was a single state jurisdiction population-based retrospective analysis of consecutive sexual assaults among NH residents

* Corresponding author.
E-mail address: daisy.smith@monash.edu (D. Smith).

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Population rates of nursing homes Victoria

At 30 June 2015, there were 2,681 operational nursing homes in Australia delivering residential care to approximately 192,370 persons with an average occupancy rate of 92.5%. Of these, there were approximately 45,152 permanent residents in Victoria [21].

The *Aged Care Amendment (Security and Protection) Bill* (Vic)

In 2007, the *Aged Care Amendment (Security and Protection) Bill* (Vic) was introduced to provide new measures to protect aged-care residents including, but not limited to, a regime for compulsory reporting of physical and sexual assaults of people in aged care [22]. Section 63-1AA of the *Aged Care Act 1997* (Cth) outlines the responsibilities of an approved provider relating to an allegation or suspicion of a reportable assault. If an allegation is received or suspected, the approved provider is responsible for reporting the allegation/suspicion as soon as reasonably practical, and in any case within 24 hours to the police and government department Secretary [23].

Estimates of assault

Prior to 2007, it was estimated that each year there were approximately 20,000 unreported cases of elder abuse, neglect and exploitation in Victoria. Between 2009-10 and 2014-2015 the published number sexual assaults rose from approximately 280 to 430 reports nationally (information about each jurisdiction was not available) [24].

Fig. 1. Background information on occupancy rates in nursing homes, elder abuse legislation and estimates of sexual assault in nursing homes, Victoria, Australia. (See above-mentioned references for further information.)

that occurred in Victoria, Australia. AI occurred and was reported to the Clinical Forensic Medicine (CFM) a forensic medical service between 1 January 2000 and 31 December 2015. Fig. 1 details Victorian NH population rates, elder abuse legislation, and estimations of assault.

2.2. Sample collection and source

Data was sourced from clinical case records generated by the CFM service, a Unit at the Victorian Institute of Forensic Medicine (VIFM). CFM provides a range of clinical forensic medical services and advice for the State of Victoria, including the investigation of an alleged sexual assault.

The standardized clinical forensic examination proforma collects information on:

- Case history including assault type and details of AI (time and location)
- AV socio-demographic characteristics
- Examination details including: consent to examination; type of examination performed; injuries; and examination limitations
- Biological evidence characteristics
- Limited alleged perpetrator (AP) characteristics including: sex and AV-AP relationship.

2.2.1. Inclusion criteria

Cases were included if they met the following criteria:

- AIs occurred in Victoria, Australia between 1st January 2000 and 31st December 2015.
- AVs were women (65 years and older) living in a NH at the time of the assault.
- NH was accredited with the Aged Care Standards and Accreditation Agency (ACSAA).
- The assault was of a sexual nature

NH accreditation was determined independently by two reviewers (DS and MW) by comparing the AV's place of residence with a list of accredited NHs and searching the accreditation reports published on the Australian Aged Care Quality Agency website [6]. Cases were excluded if accreditation could not be substantiated.

2.2.2. Sample identification

Using the age cut-off (65 years +), paper-based records of FMEs conducted between 2000 and 2012 filed were retrieved by an administrative staff attached to CFM (CS). CS then manually searched these to identify sexual assault examinations. The records were then independently reviewed by two researchers (DS and MW) against the inclusion criteria to identify cases of sexual assault involving an older AVs living in a NH. In 2013, the CFM Unit upgraded their case

recording to an electronic database. Cases occurring between 2013 and 2015 were identified from a search of the electronic database using the same search strategy. Each case that met the inclusion criteria was reviewed and consensus regarding eligibility of complex cases was reached by discussion (DS, MW & CY).

2.3. Data extraction

Where the case met the inclusion criteria, data was identified and extracted on: AV and AP demographics (age, sex, medical conditions); AV-AP relationship (staff/resident/family/unknown); type of assault (penetrative/non-penetrative, oral/vagina/anal/digital); injuries (genital/non-genital); timing (time assault was reported, time between reporting and FME); limitations to FME, evidence collection and investigative process. Data was recorded by two researchers (DS and MW) into SPSS (Version 25).

2.3.1. Data analysis

Descriptive statistical analyses were performed in SPSS V25 to examine the reported characteristics of the AV, AP, AI, and FME. These included: AV characteristics, AV and AP relationship, sexual contact characteristics, symptoms and signs of contact, AI characteristics, FME characteristics and examiners' notes, including notes regarding the AV's physical and emotional state and limitations to the FME. Analysis of data did not go beyond descriptive analysis. More complex analytical tests were not appropriate, due to the small event count.

2.4. Ethics

Ethics approval was granted by the Victorian Institute of Forensic Medicine Ethics Committee on 5 July 2016 (RAC 015/16).

3. Results

There were 28 FME for cases of alleged sexual assault, performed by staff at the CFM Unit. The majority of these occurred in the years 2007 onwards (n = 16, 59.3%).

3.1. Alleged victim and alleged incident characteristics

The median age of the AV was 83 years (inter-quartile range 73–86 years) (Table 1). Where time of day was recorded (n = 9, 32.1%), the majority of AI occurred in the morning (n = 5, 17.9%) between 4:00am-10:30am. Location of the AI was recorded for 13 (46.4%) cases, the most frequent location being the AV's bedroom (n = 8, 28.6%). Where an AP was identified (n = 15, 53.6%), all were male. Direct care staff (n = 7, 25%) and residents (n = 7, 25%) were equally identified. The remaining AP was a medical practitioner (n = 1, 3.6%). There were two cases that reported two APs, but the AVs could not identify either perpetrator.

Documentation in three case records showed that an AP (a direct care staff) was arrested and charged as a suspect of rape and indecent assault of four residents within the same NH. The nature of the FMEs for those AVs was a request by police to ascertain mental capacity. The examiner found each AV to be not mentally competent to make a police statement. One AV was a repeat victim described as having dementia and significant physical disabilities following a stroke leaving her immobile and unable to self-care.

3.2. Follow-up arrangements and treatment

Information on the follow-up arrangements made by the examiner for the AV was incomplete (n = 13, 46.4%). When documented (n = 15,53.6%), twelve examiners (80%) made follow up arrangements for the AV in the form of: a letter to their general practitioner (n = 6, 50%), AV referred to another clinician (n = 3, 25%), AP moved to another facility (n = 1, 8.3%), Hepatitis B vaccination administered (n = 1, 8.3%), NH staff advised on medical treatment of AV (treatment not specified) (n = 1, 8.3%). Three examiners physicians (20%) did not document any follow-up arrangements. The majority of cases did not indicate whether the AV had received treatment for the AI (n = 24, 85.7%) and information was missing for 3.6% (n = 1). The three cases that indicated treatment had been received stated that treatment was provided by a sexual assault caseworker, a medical emergency team

Table 1
Alleged victim (AV) and alleged incident (AI) characteristics.

Characteristics	N 28	%100
AV Characteristics		
Age		
65–69	4	14.3
70–74	5	17.9
75–79	1	3.6
80–84	8	28.6
85–89	6	21.4
90–94	3	10.7
95–100	1	3.6
Physical health need		
Yes	11	39.3
No	–	–
Not stated	17	60.7
Reported physical health needs		
Immobility/limited mobility	5	45.5
Dependency/assistance with ADLs*	2	18.2
Frequent falls & epilepsy	1	9.1
Blindness	1	9.1
Deafness	1	9.1
Bilateral paralysis	1	9.1
Cognitive functioning		
Dementia**	17	73.9
Dementia** and limited verbal communication	5	21.7
Alzheimer's Disease	1	4.3
Not stated	5	17.9
Other conditions	**10**	
Depression	3	30
Stroke	3	30
Urinary and fecal incontinence	2	20
Vaginal Atrophy	1	10
Dermatitis	1	10
Medications		
Yes	12	42.9
No	–	–
Not stated	16	56.1
Incident Characteristics		
NH Region		
Metropolitan	23	82.1
Regional	3	10.7
Not stated	2	7.1
Time		
Morning	5	17.9
Afternoon	1	3.6
Evening	3	10.8
Not stated	19	67.9
Incident Location		
AV's bedroom	8	28.6
Alleged perpetrators room	3	10.7
Dining room	1	3.6
Shower	1	3.6
Not stated	15	53.6
Alleged Perpetrator		
Direct Care Staff	7	25
Resident	7	25
Unknown	10	35.7
Medical practitioner	1	3.6
Not stated	3	10.7

*ADLs = Activities of daily living.
**Type of dementia was not specified by examiners.

Table 2
Forensic investigation characteristics.

Investigation Characteristics	n	%
Requesting agency		
Police	26	92.9
Doctor/hospital	1	3.6
Not stated	1	3.6
Time to conclude examination		
< 1 h	4	18.2
1–2 h	13	59.1
2–3 h	4	18.2
3–4 h	1	3.6
Consent to examination		
AV's adult child	13	56.5
Other legal guardian	5	21.7
AV	4	17.4
AV's partner	1	4.3
Observers role		
Requested service*	2	18.2
NH staff	5	45.5
Police	2	18.2
AV adult daughter	1	9.1
Doctor	1	9.1
Stages observer present		
History	1	9.1
Examination	5	45.5
Both	5	45.5
Anogenital examination conducted		
Yes	18	64.3
No	4	14.3
Not applicable	4	14.3
Not stated	2	7.1
Forensic specimens taken		
Yes	18	64.3
No	4	14.3
Not applicable	3	10.7
Not stated	3	10.7

*Requested service = CASA counselor and Coordinator of Aged Care services.

and a general practitioner.

3.3. Forensic investigation

The police requested the majority of FMEs (n = 26, 92.9%) (Table 2). The date of CFM service was the same day as the date the call was received by CFM for 89.7% (n = 25) of cases, and information was missing for two cases (6.9%). Only one case was not examined on the same day as the request for FME, as the call was received at 11:30 pm. The majority of FMEs took 1–2 h to complete (n = 13, 59.1%).

Information regarding consent for a FME was available for the majority of cases (n = 25, 89.2%). Consent was not gained in two cases due to AV distress and the FME did not proceed. The majority of FMEs were conducted at the AV's NH (n = 16, 60.7%), which was predominantly located in metropolitan areas in Victoria (n = 23, 88.2%).

The majority of the AVs underwent an anogenital examination (n = 18, 64.3%). Four (14.3%) AVs did not consent to an anogenital examination and so examination did not proceed. Forensic specimens were collected in 18 cases (64.3%), though the results were not available in the majority of CFM files (n = 16, 88.9%). When recorded and applicable (n = 18, 64.3%), the majority of AVs did not have a vaginal speculum examination (n = 15, 83.3%). Three AVs had a speculum examination attempted of which, two were successful (11.1%). Alleged contact/penetration and injuries are reported in Table 3 for vaginal penetration and Table 4 for general and ano-genital examinations.

3.4. Examiner's notes

Examiner's notes regarding the AV's physical and emotional appearance during FME are described in Table 5. AV's behavior was reported to be cooperative (n = 11, 64.7%), uncooperative and agitated (n = 4, 23.5%), and unresponsive (n = 2, 11.8%) during the FME. Only one case included documentation of the AV's intellectual ability, stating the AV was intellectually impaired.

A total of 16 limitations were noted by examiners. Patient limitations were reported in 13 (81.25%) of cases. Of the 13 cases, three (23.1%) also noted location limitations. Limitations included: AV's cognitive status (n = 6, 37.5%), physical issues (n = 4, 25%), lack of cooperation (n = 3, 18.75%), and poor examination conditions (n = 3, 18.75%) (Table 5).

4. Discussion

This study examined the epidemiology of sexual assaults of older persons (aged 65 years and older) residing in NHs within Victoria, Australia. The key findings are: AVs frequently had cognitive impairments; injuries were infrequent; and alleged victims were cooperative. The forensic medical examiner responded within 72 h of reporting; and frequently noted limitations to physical examinations of the alleged victim.

The AV and AP characteristics reported in the FME revealed a relatively homogenous group of older women, of which the majority exhibited some form of cognitive or physical impairment. These results support the findings of previous research [7–12]. As documenting AP characteristics is not the primary focus of the FME the lack of this information was expected. When reported all AP were male and, comprised of staff and residents, consistent with existing literature [7,9–11].

Timely reporting and response of AI was evident in our study. Interviews with investigative personnel (n = 28) revealed most facilities responded appropriately to sexual assault allegations [13]. However, incident reports found that care facilities either failed to prevent or respond appropriately to sexual assault allegations in over a third of incidents (49/124) [9]. A delayed response reduces the capacity of investigating officers and forensic medical examiners to gather evidence that may substantiate the assault [14]. Notifications made within three days were more likely to be substantiated than those made with a delay greater than three days [14].

Timely reporting of AI are hindered and delayed when there is confusion about reporting obligations. There are mixed reviews in Australia about NH resident sexual assault reporting obligations, with evidence of some support among professionals for mandatory reporting, and concerning gaps in reporting obligations [15]. Reporting pathways are acknowledged to be complex and confusing, with duties in relation to reporting dependant on the professional context in which elder abuse is discovered [16]. It is imperative that laws for reporting are clear about the mandatory duty of relevant personnel to report any kind of elder abuse occurring in nursing homes, within 24-hours.

Injuries were not frequently reported. Where present, these consisted of bruising, skin tears, redness and swelling. This is consistent with other research that describes serious bruising and skin tears as the only injuries reported [17].

The most frequent alleged form of sexual contact was vaginal contact/penetration. Many of the genital injuries documented in the course of FMEs are extremely small in size, heal quickly and only possible to detect with the use of visual aids [18]. In most Australian jurisdictions, visual aids are not used during adult FMEs. Our study found the majority of AVs did not have a speculum examination. Speculum examinations are technically difficult in older patients where there are atrophic changes in the vaginal tissues. It is important to recognise that while the FME may reveal genital injuries, sexual assault is a legal conclusion, not a medical diagnosis.

Table 3
Symptoms of alleged vaginal penetration (N = 14).

Vaginal penetration	Symptoms of alleged contact											
	Pain n (%)			Bleeding n (%)			Urinary n (%)			Discharge n (%)		
	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS
Digital (n = 5)*	1 (20)	1 (20)	3 (60)	1 (20)	3 (60)	1 (20)	–	4 (80)	1 (20)	–	4 (80)	1 (20)
Penile (n = 5)	–	4 (80)	1 (20)	–	4 (80)	1 (20)	–	3 (60)	2(40)	1 (20)	3 (60)	1 (20)
Digital/penile (n = 1)	1 (1 0 0)	–	–	1 (1 0 0)	–	–	1 (1 0 0)	–	–	–	1 (1 0 0)	–
Vaginal & anal penetration (n = 1)	–	–	1 (1 0 0)	–	–	1 (1 0 0)	–	–	1 (1 0 0)	–	–	1 (1 0 0)
Dyed pubic hair (n = 1)	–	1 (1 0 0)	–	–	–	1 (1 0 0)	–	–	1 (1 0 0)	–	–	1 (1 0 0)
Unknown contact (n = 1)	1 (50)	1 (50)	–	1 (50)	1 (50)	–	–	1 (50)	1 (50)	–	1 (50)	1 (50)

Y = Yes, N = No, NS = Not stated, (−) Not applicable.
*Two cases were not applicable and not included in this table as the examiner was instructed to ascertain mental capacity and not collect information regarding alleged victim's injuries etc. **People may have multiple symptoms.
Vaginal contact or penetration was reported in 60.7% (n = 17) of the cases. Type of contact/penetration included: digit to vaginal contact (n = 7, 41.2%), penis to vaginal contact (n = 5, 29.4%), unknown contact (n = 2, 11.8%), penile vaginal and anal penetration (n = 1, 5.9%), digital or penile penetration (n = 1, 5.9%), and dyed pubic hair (n = 1, 5.9%).

Information about the AVs behaviour was commonly missing, and this information is rarely published [10,17]. Although some AVs were distressed, when documented, AVs were often described as cooperative and to not be showing signs of distress during the FME. This is surprising given the majority of the AVs had some form of mental or cognitive impairment. Previous research suggests women tend to feel distressed during the examinations [19]. It is reasonable to postulate that distressed was not caused as speculum examinations were not frequently conducted. Factors such as the AV cognitive status, incident and/or case characteristics should be taken into account to determine examination benefit. Future research should focus on the how sexual assault and post-sexual assault events, such as FME, affect this unique population and what treatment programs would be valuable for these victims.

Examination limitations identified were consistent with previous literature [20]. Over 50% of personnel (n = 46) found NH sexual

Table 4
Alleged victim's body chart information.

Case No.	Time elapsed* (hours)	General examination injuries	Location & injury	Vaginal injuries	Location & injury
1	< 24	NR	–	–	–
2	NS	NR	–	–	–
3	< 24	NR	–	–	–
4	NS	NR	–	–	–
5	NS	NIN	–	NIN	–
6	24–48	NIN	–	NIN	–
7	NS	NIN	–	NE	–
8	24–48	NIN	–	SRI	Abrasion inner aspect of right labium. Laceration at posterior fourchette
9	< 24	NR	–	–	–
10	–**	–**	–**	–**	–**
11	–**	–**	–**	–**	–**
12	24–48	NIN	–	NIN	–
13	NS	NIN	–	NIN	–
14	< 24	NIN	–	NIN	–
15	< 24	NR	–	–	–
16	< 24	NIN	–	NIN	–
17	24–48	NE***	–	NIN	–
18	24–48	SRI	Left & Right arm. Scratches > 1 day old.	SRI	Upper thigh bruises
19	NS	NR	–	–	–
20	NS	NR	–	–	–
21	NS	SRI	Bruises anterior frontal & Right arm	SRI	Abrasion, tenderness, inflammation
22	NS	NE***	–	SRI	Abrasion on labia minor, laceration w bruising & swelling
23	< 24	NE***	–	SRI	Abrasion right side vaginal wall
24	< 24	SRI	Bruise left thigh	NE	–
25	–**	–**	–**	–**	–**
26	< 24	NE***	–	SRI	Bruise & laceration on labia minora
27	NS	SRI	Bruise right knee, abrasion & bruise left thigh & lower leg	SRI	Wound on the posterior fourchette and posterior vaginal wall which was ulcerated. Three ulcers on the anterior vaginal wall
28	NS	SRI	Bruises right & thigh inner thigh	NIN	–

General: NS = Not stated; (−) = Not applicable.
Injuries: NR = Not recorded; NE = Not examined; NIN; Nil injuries noted; SIR = Sign of recent injury.
*Time from incident to forensic evaluation. **Examiner called to evaluate mental capacity of AV not report injuries. ***Examiner only examined genitals
General examination injuries consisted of scratches, bruises and abrasions. Vaginal injuries consisted of abrasions, lacerations, bruising, swellings, ulcerations and wounds.

Table 5
Examiner's notes regarding AV's physical and emotional appearance during examination and reported limitation to examinations.

Examiner's notes	n	%
Notes regarding AV		
Behavior		
Cooperative	11	39.3
Uncooperative/agitated	4	14.3
Unresponsive	2	7.1
Not stated	11	39.3
Intellect		
Intellectually impaired	1	3.6
Not stated	27	96.4
Physical/sexual development		
Normal, mature genital anatomy	4	14.3
Chronic choreic movements and tardive dyskinesia	1	3.6
Not stated	23	82.1
Drug/alcohol effect		
No effect	2	7.1
Not stated	26	92.9
Clothing		
Casually/neatly dressed	5	17.9
Night clothes	4	14.3
Incontinence pad	2	7.1
Hospital gown	1	3.6
Not stated	17	60.7
Notes regarding limitations	**n**	**%**
Limitations	**16**	**100**
Patient factors	**13**	**81.3**
Patients cognitive issues impacted investigation	6	46.2
Patients health or physical issues impacted investigation	4	30.8
Victim uncooperative	3	23.1
Location factors		
Poor examination conditions	3	100

assault to be more challenging than any other form of assault to investigate due to, limited forensic evidence and victim deliberating conditions [13]. Individual AI factors impact the completeness of the FME. For example, an examination cannot proceed if the AV is unwilling or unknowing to what it is they are consenting to. Forensic evidence is therefore limited by the inability to conduct a full examination; to identify all injuries and to sample all potentially relevant sites for biological evidence.

Generalising the findings from this study should be done with caution as there was a small event count, in a single jurisdiction and the results are descriptive and exploratory in nature. To our knowledge, this study is the most recent report of sexual assaults in NHs, using forensic examination data, in Australia and is an important foundation for future research and to inform policy development.

In the absence of multi-jurisdictional studies, using prospective, systematically collected data, as well as existing investigatory processes and documentation on service provision [14], the results from this study contribute to a better understanding of the characteristics and challenges relating to allegations of sexual assault in NH residents.

The incidence of sexual assault amongst NH residents is underestimated. We found the number of reported sexual assaults to a forensic medical examiner was low. This may be due to underreporting and lack of identification by NH staff.

Sexual assault, in any setting or age group, is one of the most difficult crimes to prosecute due to the required elements of intent and lack of consent. Our research brings new information to this field, specifically highlighting how the NH setting adds unique complexity for the detection of victims. In the majority of cases examined, signs of general or genital injury were not found. Further, our findings of the AV's post-assault emotional response, such as agitation; distress and confusion, can mirror symptoms of cognitive impairment. This highlights the potential difficulties for NH staff in distinguishing whether the behavior is due to sexual assault. Further, NH victims of sexual assault tend to be ignored by staff who did not believe the accusations [17]. Although we could not determine who or what prompted reporting, what is known from previous literature is that such cases are unlikely to have a witness [11], though witnesses appear to be crucial to ensure successful prosecution [17].

In conclusion, with the absence of obvious signs of sexual assault, a credible victim, and a witness, this research accentuates that it is vital NH staff are aware of the existence of sexual assault within our NHs and that it is their duty as care providers to report alleged or suspected sexual assault within a timely manner. More research is needed into sexual assault occurring in the older person population, as well as on how to address the knowledge gaps around incidence, levels of reporting, nature of investigations, responses required to assist the victim, and how to prevent sexual assault.

Conflict of interest

The authors declare no conflict of interest.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.legalmed.2018.11.006.

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