

Literature Review

A Systematic Review of Sexual Assaults in Nursing Homes

Daisy Smith, BA,^{1,*} Lyndal Bugeja, BA (Hons), PhD,¹ Nicola Cunningham, B.Med, MForensMed, FFCFM (RCPA), FACEM,² and Joseph E. Ibrahim, MBBS, GradCertHE, PhD, FAFPHM, FRACP¹

¹Department of Forensic Medicine, Monash University, Southbank, Victoria, Australia. ²Victorian Institute of Forensic Medicine, Clinical Forensic Medicine, Southbank, Victoria, Australia.

*Address correspondence to Daisy Smith, BA, Department of Forensic Medicine, Monash University, 65 Kavanagh Street, Southbank, Victoria 3006, Australia. E-mail: daisy.smith@monash.edu

Received October 27, 2016; Editorial Decision Date February 13, 2017

Decision Editor: Rachel Pruchno, PhD

Abstract

Purpose of the Study: The dramatic growth in the older adults (65 years+) has created an equivalent increase in the number of nursing home (NH) residents. NH residents often lack physical and cognitive abilities, making them particularly vulnerable to assault. Although sexual assault is among one of the most shocking types of assault, it is also the least acknowledged, detected, and reported type of assault against NH residents. This systematic review examines victim/perpetrator sociodemographic and relationship characteristics as well as the forensic characteristics of sexual assaults occurring in NH.

Design and Methods: A 7 database systematic search of studies published between January 1, 1949 and October 26, 2015 was conducted that examined sexual assaults in NH. Articles reporting on sexual assault in NH and other institutional settings were eligible. Community-dwelling populations and studies not describing sexual assault or physical aspects of sexual assault were excluded. Sexual assault was not restricted to a single definition, study method, or country.

Results: Fifteen studies met inclusion criteria. Sexual assault was the least reported type of assault in NH. Victims of sexual assault were likely to be females with cognitive or physical impairments. Perpetrators were likely to be male residents, although staff members were also substantiated. Forensic characteristics and investigative data were limited. Study limitation included inconsistencies between study purposes and small sample sizes.

Implications: This review highlights a gap in knowledge regarding sexual assaults in NH and demonstrates a need for better staff training in detecting, examining, and managing sexual assaults in NH.

Keywords: Abuse/neglect, Gender issues, Institutional care/residential care, Quality of care

Sexual assault is a major health and social issue with significant physical and psychological consequences for victims (Burgess, Watt, Brown, & Petrozzi, 2006). There are no official global prevalence rates of sexual assault of older persons (Malmedal, Iversen, & Kilvik, 2015), and although terms like “sexual assault,” “sexual abuse,” and “sexual violence” are generally considered to be synonymous, definitions may vary between countries (World Health Organization, 2003). There is paucity of empirical research into sexual assaults of older people. Current literature

focuses on elder abuse (physical, sexual, psychological, emotional, financial, material, and neglect); therefore, sexual assault as an individual component is often overlooked and is rarely exclusively studied (Malmedal et al., 2015). There is a general limited understanding of elder abuse, with emerging recognition for the need of systematic research in this area (Kaspiew, Carson, & Rhoades, 2016).

Sexual assault is defined as non-consensual sexual contact of any kind, and is considered the most hidden; least acknowledged and reported form of elder abuse (Acierno

et al., 2010; Castle, 2012a, 2012b; Castle, Ferguson-Rome, & Teresi, 2013; Teaster & Roberto, 2003). These factors make determining the burden of sexual assault a challenge and accurate estimates of prevalence rates are difficult to ascertain (Acierno et al., 2010). Without this information, designing effective initiatives to prevent sexual assault are hampered, as is obtaining the necessary allocation of resources required for implementation (Morgan & Chadwick, 2009).

The long-term care or nursing home (NH) setting is unique and warrants separate study. This allows better characterization of social policies and regulatory oversight, consideration of physical structure and culture of the workplace, and role of staff and cohabitants. NH residents are a particularly vulnerable population for sexual assault due to dependency on caregivers, multifaceted health problems (Gibbs & Mosqueda, 2004), and the co-housing of residents, including some with potentially dangerous older individuals with sexual assault backgrounds (Cohen, Hays, & Molinari, 2011). Although underreporting of sexual assault is common among all age groups, rates of underreporting are greater for older victims and greatest for NH residents (Burgess, Hanrahan, & Baker, 2005). Despite severe health consequences efforts to prevent and address elder abuse remain inadequate (Navarro, Gassoumis, & Wilber, 2013). Focusing on a single setting, such as a NH, enables research to better investigate contributory factors and design specific interventions that are applicable to that setting (Centres for Disease Control and Prevention, 2015).

Determining the prevalence of sexual assault in an older population is inherently more difficult due to victim characteristics. Older victims of sexual assault are primarily female with cognitive limitations or physical care needs (Teaster & Roberto, 2004). Furthermore, the prevailing negative sexual stereotypes of older people (Burgess et al., 2005), their greater dependency on others (Burgess et al., 2005), potential divided loyalty to staff members (Jayawardena & Liao, 2006) or residents (Burgess, 2006) are unique barriers in reporting, detecting, and preventing sexual assault in NH (Burgess et al., 2005).

Aims

The aim of this systematic review is to examine: (a) victim/perpetrator sociodemographic and relationship characteristics; and (b) forensic characteristics of sexual assaults occurring in NH comprising: assault type; examination process; legal outcomes and preventive measures.

Methods

Reporting Guidelines

This review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Liberati et al., 2009) (Supplementary Figure 1).

Data Sources and Searches

The following databases were searched from the disciplines of public health, psychology, and criminology: Medline; EMBASE; CINAHL; Cochrane Database of Systematic Reviews; PsycINFO; Web of Science; and Scopus. These were selected to optimize the likelihood of identifying all previously published studies. The search was conducted on October 26, 2015, used explosions and combinations of key search terms (Supplementary Figure 1).

Key terms were derived relating to the topics of sexual assault and NH (Supplementary Figure 2). Each researcher independently reviewed the key terms (L. Bugeja and D. Smith). Additional terms identified during individual database searches were added to a master list. The final search included the entire list for every database. The researchers conducted the same search independently, using a combination of search terms to describe sexual assaults and NH. A bibliographic review of included articles was conducted to identify additional relevant studies.

Eligibility Criteria

The inclusion criteria for articles reporting sexual assaults in NH comprised:

- Original research in a peer-reviewed journal
- Published in the English language
- Published between January 1, 1949 and October 26, 2015
- Population examined or included residents of NH/other aged care institutional facility
- Study examined the topic of sexual assault/abuse of a physical nature.

Articles were excluded if found to be duplicates, examined sexual assault among community dwellers or non-physical aspects of sexual assault only (e.g., inappropriate sexual discussion). Sexual assault was not restricted to a single definition, study method, or country.

Results were exported into Endnote X5 software. Duplicates were removed and two researchers (D. Smith and L. Bugeja) independently completed an initial screening of titles and abstracts. A priori inclusion and exclusion criteria were then applied. The two researchers independently assessed the full text of the remaining articles and inclusion was assessed via consensus between the two researchers. A bibliographic review of included articles was conducted to identify additional relevant studies. Any discordance was resolved in a final adjudication by the senior researcher (J. E. Ibrahim).

Data Extraction and Quality Assessment

Extracted data included: study period, aim, publication date, location, population, research design, data sources, frequency, type of sexual assault, perpetrator and victim characteristics, risk and protective factors, forensic markers,

injuries, post-assault victim response, examination and tools used, barriers in reporting, legal outcomes, interventions, polyvictimization, salient prevention findings, and study limitations. Where studies included data from populations wider than NH, only data pertaining the population of interest was extracted. Internal validity of included articles was assessed using the National Institutes of Health (NIH) study quality assessment tool comprising 14 criteria. Two reviewers (D. Smith and L. Bugeja) independently rated each study against the criteria before an overall quality rating was assigned (Table 1) (National Institute of Health, 2014).

Data Analysis

The review sought to describe: (a) incidents and nature of sexual assault in NH including outcomes; (b) forensic characteristics surrounding sexual assaults; and (c) barrier and facilitators to the investigation and reporting of sexual assaults.

Results

Study Selection

The combined searches yielded 2,291 articles, of which 15 were eligible for inclusion (Supplementary Figure 1).

Study Characteristics

The first included study was published in 1995 and all were conducted in the United States. The majority were quantitative ($n = 10$) (Burgess et al., 2005; Burgess, Ramsey-Klawnsnik, & Gregorian, 2008; Castle, 2012a, 2012b; Payne, 2010; Ramsey-Klawnsnik, Teaster, Mendiondo, Marcum, & Abner, 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003, 2004) and were retrospective case-series (Castle, 2012a, 2012b; Ramsey-Klawnsnik et al., 2008; Teaster et al., 2007; Teaster & Roberto, 2003, 2004) and case-control studies (Burgess et al., 2005; Burgess et al., 2008; Payne, 2010; Roberto & Teaster, 2005). The remainder were qualitative ($n = 5$) (Burgess, Dowdell, & Prentky, 2000; Burgess, Prentky, & Dowdell, 2000; Payne & Cikovic, 1995; Ramsey-Klawnsnik & Teaster, 2012; Rosen et al., 2008) of which most were retrospective case-series studies ($n = 4$) (Burgess, Dowdell, et al., 2000; Burgess, Prentky, et al., 2000; Payne & Cikovic, 1995; Rosen et al., 2008). Of the 15 studies, eight were separate research endeavors (Burgess et al., 2005; Burgess et al., 2008; Castle, 2012a, 2012b; Payne, 2010; Payne & Cikovic, 1995; Ramsey-Klawnsnik & Teaster, 2012; Rosen et al., 2008). Predominantly, studies focused exclusively on sexual assault ($n = 10$) (Burgess, Dowdell, et al., 2000; Burgess et al., 2005; Burgess, Prentky, et al., 2000; Burgess et al., 2008; Ramsey-Klawnsnik & Teaster, 2012; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003, 2004) while the remainder included other forms of assaults (physical, emotional, neglect, etc.) ($n = 5$) (Castle, 2012a, 2012b; Payne, 2010; Payne & Cikovic, 1995;

Rosen et al., 2008) (Table 1). The studies were too varied in purpose and location to be analyzed in an aggregate form.

Quantitative studies collected data through a number of methods: combination of incident reports and staff interviews ($n = 4$), staff interviews ($n = 2$), or incident reports ($n = 4$) (Table 1). Among these, resident demographics were homogenous; being predominately female (Burgess, Prentky, et al., 2000; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik & Teaster, 2012; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005), Caucasian (Burgess et al., 2005; Burgess, Prentky, et al., 2000; Burgess et al., 2008; Ramsey-Klawnsnik et al., 2008; Teaster et al., 2007), in need of ambulatory assistance (Burgess, Dowdell, et al., 2000; Burgess, Prentky, et al., 2000; Ramsey-Klawnsnik et al., 2008; Teaster et al., 2007; Teaster & Roberto, 2004), and were disabled and/or cognitively impaired (Burgess, Dowdell, et al., 2000; Burgess et al., 2005; Burgess, Prentky, et al., 2000; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik & Teaster, 2012; Ramsey-Klawnsnik et al., 2008). Qualitative studies collected data from incident reports and/or staff interviews ($n = 4$) or staff and resident self-reports ($n = 1$) (Table 1).

Number of NH Victims and Incidents

Eleven studies reported the number of nursing home sexual assault victims (NHSAV), with eight studies focusing on NH and/or other facilities (Burgess, Dowdell, et al., 2000; Burgess, Prentky, et al., 2000; Castle, 2012a, 2012b; Payne & Cikovic, 1995; Ramsey-Klawnsnik et al., 2008; Teaster et al., 2007; Teaster & Roberto, 2003). According to nurse aide reports ($N = 3,433$), sexual assault was the least observed, suspected, and reported type of assault compared to the other forms of assaults studied (Castle, 2012a). The number of NHSAV from these ranged from 20 (Burgess, Dowdell, et al., 2000) to 50 (Teaster & Roberto, 2003) victims. The number of NHSAV in mixed settings (e.g., community, NH, and assisted living) ranged from 46 (Burgess et al., 2005) to 127 (Payne, 2010) victims. Isolated incidents were most commonly reported (Payne, 2010; Teaster et al., 2007; Teaster & Roberto, 2003). However, one study reported that repeat offences were common, with nearly one third of incidents (36/127) involving perpetrators assaulting multiple victims or a victim being assaulted on multiple occasions (Payne, 2010).

One study using incident reports found 28/124 substantiated incidents involved one perpetrator and two substantiated incidents involved two perpetrators (Ramsey-Klawnsnik et al., 2008). Multiple types of sexual assault within a single incident (21/50), such as a combination of unwelcome sexual interest in a woman's body together with sexualized kissing and fondling, were also reported (Teaster & Roberto, 2003). Women between 80 and 89 years were statistically more likely to experience multiple types of assault than those aged 70–79 years (Teaster & Roberto, 2003). These findings were identified using incident reports.

Table 1. Methods and Populations of Selected Studies

Study	Aim	Method			Sample			NIH Quality Assessment
		Design	Data source	Setting	Study period (Y)	Location	Abuse type	
Burgess et al. (2000)	Analyze female forensic assault cases	R, Cs	IR	—	—	NH	S	PO
Teaster and Roberto (2003)	Examine SUB female assault cases	R, Cs	IR, St, Sur	S/C	1996–2001	NH	S	G
Burgess et al. (2000)	Explore nature of NH perpetrators	R, Cs	IR	—	—	NH	S	PO
Teaster et al. (2007)	Explore S of NH males	R, Cs	IR, Sur, St	S/C	May–October 2005	NH	S	G
Ramsey-Klawnsnik et al. (2008)	Analyze perpetrators in care facilities	R, Cs	IR, St, Sur	S/C	May–October 2005	LTC	S	G
Teaster and Roberto (2004)	Profile older adult SUB cases	R, Cs	IR, St, Sur	S/C	1996–2001	M	S	G
Roberto et al. (2005)	Difference b/w vulnerable young and older females victims	R, Cc	IR	S/C	1996–2001	M	S	G
Burgess et al. (2008)	Explore characteristics of elder victims and offenders reported to APS or CJS	R, Cc	IR	—	2002–2004	M	S	G
Burgess et al. (2005)	Analyze forensic markers of female elder assault	R, Cc	IR	S/C	—	M	S	G
Payne (2010)	Dynamics of elder assault cases and justice system involvement	R, Cc	IR	N	1993–2003	NH	P & S	G
Payne et al. (1995)	Explore characteristics, consequences, and causes of assault	R, Cs	IR	N	1987–1992	NH	P, F, S, DR	G
Castle (2012a)	Staff observations of staff–resident assault	R, Cs	Sur, St	S/C	—	NH	V, PHY, PSY, CG; MED; MAT; S	G
Ramsey-Klawnsnik et al. (2012)	Explore regulatory bodies investigations	P, Cs	IR, St, Int	S/C	May–October 2005	LTC	S	F
Castle (2012b)	Staff observations of resident–resident assault	R, Cs	Sur, St	S/C	—	NH	V, PHY, PSY, MAT, S	G
Rosen et al. (2008)	Characterize spectrum of resident–resident aggression	R, Cs	Res, St, Int, FG	S/C	—	LTC	PHY, V, S	G

Note: General: (—) = not stated/specified. Setting: S/C = state/country; N = national. Assault types: PHY = physical; S = sexual; N = neglect; F = financial; V = verbal; PSY = psychological; MAT = material; DR = duty related; CG = caregiving. Allegation: AL = alleged; SUB = substantiated. Location: LTC = long-term care; NH = nursing homes; M = mixed. Design: R = retrospective; P = prospective; Cc = case-control. Data source: Sur = survey; Int = interview; FG = focus group; St = staff; Res = resident. NIH Quality Assessment: G = good; F = fair; PO = poor.

One study using 15 focus groups of NH staff ($n = 96$) and another of cognitively intact residents ($n = 7$) were asked to discuss specific types of resident–resident aggression (physical, verbal, sexual) they had witnessed in their NH. Sexual assault was discussed by 18% of the participants in 38% of focus groups. Inappropriate touching component of sexual assault was discussed more than any of the physical assault component, with the exception of punching and fighting (38% and 44%, respectively) (Castle, 2012b).

Number of Perpetrators of NH Sexual Assault

Four studies reported the number of identified perpetrators (Burgess, Dowdell, et al., 2000; Ramsey-Klawnsnik et al., 2008; Teaster et al., 2007; Teaster & Roberto, 2003). One study reported perpetrator identification in 119/124 alleged incidents and 32/124 substantiated incidents in care facilities (Ramsey-Klawnsnik et al., 2008). For female NHSAV, 18 perpetrators were identified ($n = 20$ incidents) (Burgess, Dowdell, et al., 2000). Perpetrators were more commonly identified in incidents involving male victims for both alleged (96%, $n = 26$) and substantiated (100%, $n = 6$) incidents (Teaster et al., 2007), compared to the substantiated incidents involving female victims (94%, $n = 50$) (Teaster & Roberto, 2003).

Victim Sociodemographic Characteristics

Nine studies described victims' sociodemographic characteristics (Burgess, Dowdell, et al., 2000; Burgess et al., 2005; Burgess, Prentky, et al., 2000; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003), who were most often female (Burgess, Dowdell, et al., 2000; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008), Caucasian (Burgess et al., 2005; Burgess et al., 2008; Ramsey-Klawnsnik et al., 2008), widowed (Burgess, Dowdell, et al., 2000; Burgess et al., 2005), required assistance in all activities of daily living (Ramsey-Klawnsnik et al., 2008), required financial assistance (Ramsey-Klawnsnik et al., 2008; Teaster & Roberto, 2003), had difficulties with orientation (Burgess, Dowdell, et al., 2000; Roberto & Teaster, 2005; Teaster & Roberto, 2003), communication (Burgess, Dowdell, et al., 2000; Ramsey-Klawnsnik et al., 2008), or ambulation (Burgess, Dowdell, et al., 2000; Ramsey-Klawnsnik et al., 2008; Teaster & Roberto, 2003), were disabled (Burgess et al., 2005; Burgess, Prentky, et al., 2000; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008), mentally impaired (Burgess et al., 2005; Burgess, Prentky, et al., 2000; Burgess et al., 2008; Ramsey-Klawnsnik et al., 2008), or suffered from a number of illnesses (Burgess, Dowdell, et al., 2000; Ramsey-Klawnsnik et al., 2008) (Table 2).

Only one study focused on a male victim population, reporting the majority were Caucasian, cognitively well-orientated, needed financial and ambulatory assistance, and communicated effectively (Teaster et al., 2007).

Perpetrator Sociodemographic Characteristics

Seven studies reported sociodemographics of perpetrators who most often were male (Burgess, Prentky, et al., 2000; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster & Roberto, 2003), Caucasian (Burgess, Prentky, et al., 2000; Ramsey-Klawnsnik et al., 2008), had a criminal or sexual assault history (Burgess, Prentky, et al., 2000; Ramsey-Klawnsnik et al., 2008), abused substances (Ramsey-Klawnsnik et al., 2008; Teaster & Roberto, 2003), were low in social competence (Burgess, Prentky, et al., 2000), exploited frail and defenseless victims (Burgess, Prentky, et al., 2000), had an untreated psychiatric illness (Teaster & Roberto, 2003), were financially dependent on the victim or unemployed (Teaster & Roberto, 2003) (Table 2). The study focusing on male-only NHSAV found perpetrators were most likely Caucasian males aged between 60 and 79 years old (Teaster et al., 2007). There were slight discrepancies in demographics based on the relationship (staff or resident) to the victim. Accused direct care staff were typically male, aged between 19 and 65 years and had criminal histories, whereas the accused residents were male, aged between 21 and 96 years, substance abusers, had criminal histories, or had a form of disability (Ramsey-Klawnsnik et al., 2008).

Victim–Perpetrator Relationship

Twelve studies documented the victim–perpetrator relationship (Table 2) (Burgess, Dowdell, et al., 2000; Burgess et al., 2005; Burgess, Prentky, et al., 2000; Burgess et al., 2008; Castle, 2012b; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Rosen et al., 2008; Teaster et al., 2007; Teaster & Roberto, 2003, 2004). Studies reporting a percentage of staff/resident perpetrators ($n = 5$) (Payne, 2010; Ramsey-Klawnsnik et al., 2008; Teaster et al., 2007; Teaster & Roberto, 2003, 2004) were discordant. Percentages of staff perpetrators ranged from 0% ($n = 50$) to 85% ($n = 127$) through use of incident reports. Four studies reported more staff than resident perpetrators (Burgess, Prentky, et al., 2000; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008). Resident perpetrators were identified in nine studies (Burgess, Dowdell, et al., 2000; Burgess, Prentky, et al., 2000; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003, 2004), with studies reporting 6% ($n = 58$) (Burgess et al., 2008) to 69% ($n = 59$) (Teaster & Roberto, 2004) of resident perpetrators through use of incident reports. Studies reporting staff perpetrators were more likely to be responsible for the direct care of victims than ancillary duties (e.g., cleaners, cooks) (Payne, 2010; Ramsey-Klawnsnik et al., 2008). One study did not identify any staff perpetrators (Teaster & Roberto, 2003) and incidents involving resident perpetrators were more likely to be substantiated than incidents involving staff perpetrators (Teaster et al., 2007).

Table 2. Victim and Perpetrator Characteristics and Relationships Findings

Victim characteristics			Relationship		Perpetrator characteristics							
Study	Sex %/(n)	Age (Y) ^a	Ethnicity ^a %/(n)	Function ^a %/(n)	Clinical conditions ^a %/(n)	R-R (n)/%	Staff-resident (n)/%	Sex %/(n)	Age (Y) ^a	Ethnicity	Function & clinical conditions %/(n)	Criminal history (CH) %/(n)
Teaster et al. (2007)	M	58–59	C 83	Cognitively well O Good COM 54	Not AMB 17	29	5	M 83	60–79 50%	67 C	—	—
Burgess et al. (2000)	F	70+	C (16)	Poor COM	AMB (5). Incapacitated (15)	(3)	—	—	—	—	—	—
Teaster and Roberto (2003)	F	70–79 50%	—	O time 73 & place 58 difficulties	Not AMB w/o As 72	90	0	M 100	70+	—	PSYC 14 SAB 12	CH 4%
Roberto et al. (2005)	F	—	—	—	—	—	—	M 74/75	—	—	—	—
Ramsey-Klawnsnik et al. (2008)	73 F	60–101	C 86	COM well < 50	AD 64; CI 48; PSYC 40; P 38	41	43	M(28)	—	—	R: CI (20); P (16); PSYC (13) SAB (6).	ST: CH (2) R:CH (4)
Payne (2010)	85 F	—	—	Form of impairment 45	—	(5)	85	M 80	—	—	—	—
Teaster and Roberto (2004)	B	—	—	—	—	69	5	—	—	—	—	—
Burgess et al. (2000)	B	—	—	—	Incapacitated. D	(3)	(15)	—	—	ST: C (8) R: all C.	R: All low social competence.	ST: CH (2)
Payne et al. (1995)	B	—	—	—	—	—	—	—	—	—	—	—
Burgess et al. (2008)	B	—	—	—	—	6	10.9	—	—	—	—	—
Burgess et al. (2005)	B	—	Most C	—	Majority P & Ment disability compared to non-NHR	—	—	—	—	—	—	—
Ramsey-Klawnsnik et al. (2012)	B	—	—	—	—	—	—	—	—	—	—	—
Castle (2012a)	B	—	—	—	—	ST only	—	—	—	—	—	—
Rosen et al. (2008)	B	—	—	—	—	R-R only	—	—	—	—	—	—
Castle (2012b)	B	—	—	—	—	R-R only	—	—	—	—	—	—

Note: General: (—) = not stated/specified. Gender: M = male; F = female; B = both. Assault types: P = physical; S = sexual; UNK = Unknown. Ethnicity: C = Caucasian. Function: O = orientated; AMB = ambulatory; As = assistance; COM = communication. Clinical conditions: D = dementia; AD = Alzheimer's disease; HD = heart disease; CI = cognitive impairment; MD = major depression; SAB = substance abuse; DEV = developmental; PSYC = psychiatric; SEN = sensory; P = physical; Ment = mental.

^aTable does not disaggregate substantiated/alleged.

Aggregated data, from 125 substantiated Adult Protective Services (APS) cases of sexually assaulted women, collected during a 5-year period, reported females living in a facility were more likely to be victims of assault committed by another resident than by staff (Roberto & Teaster, 2005).

Referrers/Witnesses

Witnessing and referrals of sexual assault were documented in eight studies (Burgess, Dowdell, et al., 2000; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003, 2004) (Table 3).

At least one witness was reported in 13% (Payne, 2010) to 66% (Teaster & Roberto, 2003) of incidents, and two witnesses were reported in 24% (Teaster & Roberto, 2003) of incidents. There were no witnesses in 38% of alleged incidents involving male NHSAV and 33% of substantiated incidents (Teaster et al., 2007), compared to 10% of substantiated incidents involving a female NHSAV (Teaster & Roberto, 2003). Witnesses were deemed necessary to ensure a successful prosecution and were more likely to be staff members than residents (Burgess, Dowdell, et al., 2000; Teaster et al., 2007).

Forensic Markers

Twelve studies reported forensic markers of the sexual assault (Burgess, Dowdell, et al., 2000; Burgess et al., 2005; Burgess, Prentky, et al., 2000; Castle, 2012a, 2012b; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Rosen et al., 2008; Teaster et al., 2007; Teaster & Roberto, 2003, 2004) (Table 4).

Reported sexual acts included: genital-anal penetration (Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007), digital-anal penetration (Roberto & Teaster, 2005; Teaster et al., 2007), genital-vaginal penetration (Burgess et al., 2005; Castle, 2012a, 2012b; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Teaster & Roberto, 2003), digital-vaginal (Roberto & Teaster, 2005), digital not specified (Castle, 2012a, 2012b; Ramsey-Klawnsnik et al., 2008; Teaster & Roberto, 2003), oral-genital (Castle, 2012a, 2012b; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003), rape with object (Ramsey-Klawnsnik et al., 2008), sadistic assault (Ramsey-Klawnsnik et al., 2008), prostitution (Ramsey-Klawnsnik et al., 2008), fondling or inappropriate touching (Burgess et al., 2005; Castle, 2012a, 2012b; Payne, 2010; Teaster et al., 2007), sexualized kissing or sexual interest in body (Castle, 2012a, 2012b; Teaster et al., 2007; Teaster & Roberto, 2003), and no contact acts (e.g., showing pornography, etc.) (Castle, 2012a, 2012b; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003). Repeat perpetrators tended to commit

more harmful genital contact offenses than non-repeat/first-time perpetrators (Payne, 2010).

Older NHSAV were more likely to fall victim to unwelcome sexual interest in body (Table 3) compared to the younger NHSAV (Teaster & Roberto, 2003). NHSAV were also more likely to have their breasts fondled, be more agitated, be raped by a male NH resident, be assaulted by perpetrators with mental disabilities, have items of value stolen, and be controlled by the mere presence of the perpetrators than non-NH resident victims (Burgess et al., 2005).

Higher number of residents reported observing each sexual assault studied than staff (Castle, 2012a). Staff also reported observing lower frequencies of sexual assaults than any other type of assault (Castle, 2012a, 2012b).

While the majority of offenses occurred mostly in the facility (Burgess et al., 2005; Roberto & Teaster, 2005; Teaster & Roberto, 2003, 2004), a few incidents occurred when victims were outside the NH (e.g., perpetrators home/hospital) (Teaster & Roberto, 2003, 2004). There were no significant differences in age, living situation, or self-care abilities in the experience between community-dwelling victims and victims living in facilities (Roberto & Teaster, 2005).

The APS or a regulatory entity typically investigated incidents independently, with joint investigations occurring less frequently (Table 3) (Teaster et al., 2007; Teaster & Roberto, 2003).

There was a difference between reported and residents-observed assaults (Table 3) (Rosen et al., 2008). Use of threats was documented in 2/20 NH incidents; however, control was primarily established by perpetrators mere presence (Burgess, Prentky, et al., 2000). Style of assault for incidents included: confidence (verbal manipulation or coercion to gain victims confidence), blitz (injurious force), and surprise (approached when incapacitated/unsuspected involving threats but no force). Confidence approach was only used with ambulatory victims and one perpetrator used a blitz approach, with the remaining perpetrators using the surprise approach (Burgess, Prentky, et al., 2000). Preexisting sexual fantasy (5/20) (Burgess, Prentky, et al., 2000), expressive regression and sadism (4/20) (Burgess, Prentky, et al., 2000), and clues (4/20) (Burgess, Dowdell, et al., 2000) were present in incidents.

Assaults tended to occur during evening/night shifts, before the day shift staff arrived (Burgess, Prentky, et al., 2000). Victim resistance included: victim being overheard telling the perpetrator to stop (in two incidents staff did not intervene) and screaming (in three incidents there was no assistance) (Burgess, Prentky, et al., 2000). Perpetrators of resident-to-resident sexual assault often suffered from dementia, cognitive impairment, and disinhibition (Rosen et al., 2008).

Injuries and Physical Forensic Evidence

Two studies described NHSAV injuries and physical forensic evidence (Burgess, Dowdell, et al., 2000; Burgess et al., 2008) (Table 4). Serious bruising and skin tears were the

Table 3. Victim and Perpetrator Responses, Witnesses and Investigations Findings

Witnesses				Victim Response			Perpetrator Response					Investigation			
Study	Staff (n)/%	Resident witness (n)/%	No. of witnesses (n)/%	Person reported	Care plan changed (n)/%	Relocated (n)/%	Counseling (n)/%	Hospitalization (n)/%	No intervention (n)/%	Arrested (n)/%	Prosecuted (n)/%	Convicted/ probation (n)/%	Psychiatric treatment (n)/%	Reasons for not interviewing/ prosecuting	Enhancing factors
Teaster et al. (2007)	AL: 29 SUB: 67 (14)	(1)	AL: 38 SUB: 33	—	AL: 35 SUB: 33	AL: 15 SUB: 17	AL: 4 SUB: 0	AL: 4 SUB: 0	AL: 4 SUB: 0	SUB: 0	—	—	50	—	—
Burgess et al. (2000)	—	—	—	No victim reporters	—	—	—	—	—	—	—	—	—	—	—
Teaster and Roberto (2003)	42	42	10 (1) 66 (2) 24	—	—	16	11	—	—	(3)	(1)	34	14	Insufficient evidence 60; victim unable participate PRO 32.	—
Teaster and Roberto (2004)	52	41	—	—	—	16	11	—	—	AL: (4)	3/4	29	10	—	—
Roberto et al. (2005)	44	35	—	—	—	—	—	—	—	—	—	—	—	—	—
Payne (2010)	—	—	13.4 had witness	—	—	—	—	—	—	—	37 PRO	—	—	—	—
Ramsey- Klawnsnik et al. (2008)	—	—	—	M & F reported equally	—	—	—	—	—	—	—	—	—	Unavailable (15/39), uncooperative (1), P/M condition (3).	—
Ramsey- Klawnsnik et al. (2012)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	⊕
Burgess et al. (2000)	—	—	—	—	—	—	—	—	—	ST (11)	—	—	R(2)	—	—
Payne et al. (1995)	—	—	—	—	—	—	—	—	—	—	—	56 C	—	—	—
Burgess et al. (2008)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burgess et al. (2005)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Castle (2012a)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rosen et al. (2008)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Castle (2012b)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Note: General: (—) = not stated/specified. ⊕ = information included in original study. Gender: M = male; F = female. Perpetrator response: PRO = probation; C = convicted. Case type: AL = alleged; SUB = substantiated.

Table 4. Forensic Markers, Investigation, Examination, and Post-Victim Response Findings

Study	Forensic markers		Investigation		Examination			Post-victim response					
	Sexual contact acts	Style/ control	Clues	Singly investigated	Jointly investigated	Time spent(hours)	Training (hours)	Primary evidence	Secondary evidence	Difficulties	Reasons no examination	Emotional/ psychological	Behavioral
Teaster et al. (2007)	O-G 15%; D-A 12%; A 9%.	—	—	65%	35%	2–18	—	Semen & pelvic bruising	Vaginal discharge, STD	—	—	—	—
Teaster and Roberto (2003)	O-G 6%; V 4%; Dig 2%.	—	—	70%	30%	—	—	—	—	—	—	—	—
Ramsey-Klawnsnik et al. (2008)	A (6); AR (7), Dig (6) M (57), O-G (3), P (1) sadistic abuse (1) V (1) R w Obj (1).	—	—	—	—	—	—	—	—	—	—	—	—
Castle (2012a) ^a	O-G (<1% both); Dig (<1% vs 1%); V (<1% both).	—	—	—	—	—	—	—	—	—	—	—	—
Rosen et al. (2008) ^b	SA (38 vs 18).	—	—	—	—	—	—	—	—	—	—	—	—
Castle (2012b)	O-G 1%; Dig 2%; V 1%.	—	—	—	—	—	—	—	—	—	—	—	—
Ramsey-Klawnsnik et al. (2012)	—	—	—	—	—	—	2–5 days 46%	—	—	—	—	—	—
Burgess et al. (2008)	—	—	⊕	—	—	—	—	—	—	—	—	SPAN	Behavior disturbances
Burgess et al. (2005)	—	⊕	—	—	—	—	—	NH victims < likely sperm found/P trauma	< likely STD tested	Potential evidence destroyed	—	—	—
Burgess et al. (2000)	—	—	⊕	—	—	—	—	—	—	Resistance. CI, pain	⊕	SPAN	Behavior disturbances
Teaster and Roberto (2004)	—	—	—	—	—	—	—	—	—	—	—	—	—
Roberto et al. (2005)	—	—	—	—	—	—	—	—	—	—	—	—	—
Burgess et al. (2000)	—	⊕	—	—	—	—	—	—	—	—	—	—	—
Payne (2010)	—	—	—	—	—	—	—	—	—	—	—	—	—
Payne et al. (1995)	—	—	—	—	—	—	—	—	—	—	—	—	—

Note: General: (—) = not stated/specified. Location: NH = nursing home. Contact acts: M = molestation = vaginal; A = anal rape; Dig = digital; G-G = genital to genital; O-G = oral to genital; D-A = digital penetration of anus; D-V = digital penetration of vagina; R = rape; AR = attempted rape; P = prostitution. Emotional/psychological: SPAN = startle, psychological response, anger and numbness.
^aObserved vs reported. ^bFocus group mentioned vs reported.

only injuries reported (Burgess, Dowdell, et al., 2000). Other physical and forensic evidence included: vaginal redness/swelling, vaginal bleeding, and prolapsed uteri (Burgess, Dowdell, et al., 2000). Other markers included: care provider obsessed with a victim's bowels, a victim found bleeding on the toilet, a victim's pubic hair dyed, redness in genital area, semen odor, presence of sperm in urine, and expression of concern about sexually transmitted diseases (STDs) (Burgess et al., 2008).

Examination/Tools Used to Assess Victims

Only two studies described examination/tools used to assess victims (Burgess, Dowdell, et al., 2000; Burgess et al., 2005) (Table 4). NHSAV were less likely to have: a rape kit used for evidence collection, an evidence kit collected, been examined with colposcope, been tested for STDs, or examined to detect sperm, physical trauma, than older female community dwellers (Burgess et al., 2005). Potential evidence was often inadvertently destroyed prior to forensic sampling for NH incidents (e.g., washing bed sheets) (Burgess et al., 2005). The majority of examinations undertaken revealed positive evidence (6/10) with only two examinations revealing no evidence (Burgess, Dowdell, et al., 2000).

Primary and secondary evidence are outlined in Table 4 (Burgess, Dowdell, et al., 2000). Rape examination difficulties included: victim resistance; anatomical restrictions (not being able to visualize the pelvic area); communication difficulties; cognitive status of victim; and report reliability issues. Reasons for not conducting an examination included: delayed reporting; victim not believed; and failure to follow protocol. The two male victims in this study were not examined due to: staff not believing the victim and the doctor not trained to conduct male examinations (Burgess, Dowdell, et al., 2000). Studies did not discuss victims' capacity to consent.

Post-Assault Victim Response

Three studies documented post-victim responses of NHSAV (Burgess, Dowdell, et al., 2000; Burgess et al., 2008; Castle, 2012b) (Table 4). Importantly, over 50% ($n = 20$) of victims died within a year of assault (Burgess, Dowdell, et al., 2000).

Nurse aides reports found 3.5% strongly disagreed, 5.1% disagreed, and 14% were impartial to sexual assaults creating an unpleasant atmosphere for residents (Castle, 2012b). However, 43.2% agreed and 34.1% strongly agreed sexual assault did create an unpleasant atmosphere (Castle, 2012b). Post-victim response also encompassed psychological, behavioral, and emotional behavioral interventions (Burgess, Dowdell, et al., 2000; Burgess et al., 2008) (Table 3).

Legal Outcome: Victim

Six studies reported the victim's legal outcome/response (Burgess, Dowdell, et al., 2000; Burgess et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto,

2003, 2004) (Table 3). The APS or a regulatory entity solely investigated 65% incidents involving a male victim ($n = 26$) (Teaster et al., 2007). Time spent in investigation ranged from 2 to 8 hours for alleged incidents and 4.5 to 8 hours for substantiated incidents (Teaster et al., 2007). The APS reported 12% of victims ($n = 50$) continued to be at further risk by the alleged perpetrator (Teaster & Roberto, 2003). Law enforcement alone investigated 11% of female NHSAV incidents ($n = 75$) (Roberto & Teaster, 2005).

There were higher substantiation rates for males aged 80 years and older than those aged 50 to 59 years (50% and 17%, respectively), similarly, there were higher rates for Caucasian males than African American males (83% and 17%, respectively) (Teaster et al., 2007). For alleged incidents involving a male ($N = 26$), most received no intervention (35%), others received: care plan changes (19%), nursing evaluation (15%), or moved within the facility (8%) (Teaster et al., 2007). Less frequent interventions included: sexual assault prevention, mental health counseling, increased supervision for the victim, hospitalization and alternative housing, or case management (Teaster et al., 2007). Substantiated incidents ($n = 6$) received care plan changes (33%), nursing care evaluation (17%), moved within the facility (17%), or received sexual assault prevention measures (17%). No other interventions were offered to any of the victims of a substantiated assault (Teaster et al., 2007). For female NHSAV ($N = 50$), 16% were relocated and 12% received physical/psychological treatment (Teaster & Roberto, 2003).

In the resident-resident incidents (3/20), staff failed to make a timely intervention to prevent the assault and to take the incidents seriously (Burgess, Dowdell, et al., 2000). Staff-authority reporting delays were frequent, and one aide threatening to contact the media if the assault was not reported (Burgess, Dowdell, et al., 2000). Staff responses to resident perpetrator incidents included: ignoring or minimizing assault, watching, laughing, proclaiming consent, or blaming the victim (Burgess, Dowdell, et al., 2000). It also noted that some staff negatively changed the language used in describing the victim in nursing notes after allegations of assault (Burgess, Dowdell, et al., 2000).

Legal Outcome: Perpetrator

Nine studies reported perpetrators legal outcome/response (Burgess et al., 2005; Burgess, Prentky, et al., 2000; Payne & Cikovic, 1995; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003, 2004) (Table 3). Only 5/75 NH incidents were prosecuted (Roberto & Teaster, 2005). Reasons for not prosecuting included: insufficient evidence (44/75), victim unable/unwilling to participate in prosecution (24/75), and attorney decided not to prosecute (8/75) (Roberto & Teaster, 2005). There were not significant differences for not prosecuting according to living arrangements or self-care abilities of females in one study (Roberto & Teaster, 2005), while another found perpetrators of NH sexual

assaults were less likely to be charged or found guilty than community-dwelling sexual assault victims, with none of the resident perpetrators charged with any offense (Burgess et al., 2005). Both studies used incident reports. In one study of female-only incidents, action was taken in 34/50 incidents (Teaster & Roberto, 2003).

Sixty-three percent of alleged perpetrators were interviewed ($n = 77$), with common reasons for not interviewing including: unavailable to interview (15/35), and the physical and mental condition of the alleged perpetrator ($n = 3$) (Ramsey-Klawnsnik et al., 2008). One study found that 4/82 of the alleged perpetrators were prosecuted in court ($n = 3$ NHSAV), with 3/4 resulting in convictions. Perpetrators were relocated to another facility (17/59) or received psychiatric treatment (6/59) (Teaster & Roberto, 2004). Alleged resident perpetrators were transferred to another facility (32/44) or received increased supervision (9/44) (Ramsey-Klawnsnik et al., 2008). Half of the resident perpetrators were relocated with no arrest being made in the male substantiated incidents (Teaster et al., 2007).

Staff perpetrators were more likely to be incarcerated in prison for sexual rather than physical assault, with longer mean probation times and prison sentences for sexual assault (Payne, 2010). Sanctions for convicted staff perpetrators included: fines (25/127), community service (7/127), probation (47/127), incarcerated in prison (32/127), and jail (22/127).

Alleged staff perpetrators were placed on leave (32/37), terminated from employment (9/37), resigned to work at another location (11/37), and added to a central registry of abusers (6/37) (Ramsey-Klawnsnik et al., 2008). Although staff members were identified as perpetrators in 75% of incidents involving male victims ($N = 26$), none were confirmed (Teaster et al., 2007).

Resident perpetrators ($n = 3$) were transferred to: another NH ($n = 1$), another wing of the same NH ($n = 1$), and remained on the wing ($n = 1$). The staff members that were arrested ($n = 11$), took a plea bargain in return for lesser charges ($n = 3$), were sentenced ($n = 5$), and three were pending action. One suspect with a prior child sexual assault conviction was acquitted and four resigned without being investigated (Burgess, Prentky, et al., 2000).

Sexual assault was associated with type of sentence, with 56% of the 43 incidents resulting in a conviction, and 25% resulting in a prison sentence (Payne & Cikovic, 1995). Imprisonment was the most likely sentence for sexual assault incidents compared to other assault types. Majority of incidents were resolved by guilty pleas (72%) or no contest (14%); however, methods of resolution did not affect the type of sentence given to sexual assault offenders (Payne & Cikovic, 1995).

Risk and Protective Factors

Risk and protective factors were not examined in any of the studies.

Barriers in Investigation

One study identified barriers to reporting sexual assault incidents occurring in health care facilities (Ramsey-Klawnsnik & Teaster, 2012). Over 50% of investigative personnel ($n = 46$) reported sexual assault as more challenging than any other form of assault to investigate due to state investigation regulations, limited resources (staff, training, and power), limited forensic evidence, and victim deliberating conditions. Facility limitations to the investigative process (untrained staff or failing to follow protocols) and enhancing factors (person-centered, health care provider, reporting, and examination) were also discussed (Ramsey-Klawnsnik & Teaster, 2012).

A study interviewing investigative personnel ($n = 28$) believed most facilities responded appropriately to sexual assault allegations (Ramsey-Klawnsnik & Teaster, 2012). Investigators observed that poor responses from facilities tended to: blame, harm and failed to protect victims; failed to offer forensic examinations and medical treatment; protect alleged perpetrators and compromise inquiries (violated reporting laws, tainted interviews, and skewed investigation results). One study using incident reports also found that neglect by care facilities, by either failing to prevent or respond appropriately, was evident in over a third of incidents (49/124) (Ramsey-Klawnsnik et al., 2008).

Prevention

One qualitative study provided recommendations for preventing assault in facilities and improving facility response (Ramsey-Klawnsnik & Teaster, 2012) (Table 3). Recommendations for preventing sexual assault included: increasing public awareness, single-sex housing, putting the resident's interests first, increasing facility security and supervision, conducting employee background checks, and avoiding putting male staff in charge of female residents.

Recommendations for improved facility response included: taking immediate action, immediate medical attention to victims, not disturbing evidence, detailed records of events, notifying authorities, response protocols, collaboration of law enforcement bodies, staff training in detecting signs and symptoms of assault, and appropriate boundaries between staff and residents.

Discussion

Statement of Key Findings

This systematic review examined 15 studies published in peer-reviewed journals between 1995 and 2012 to characterize sexual assaults among NH residents. The key findings are: the most vulnerable residents are likely to become victims; medico-legal examinations were infrequent due to administration complexities, and training and institutional policy not adequately equipped to deal with sexual assault cases.

Interpretation

Prevalence

A definitive estimate of prevalence of sexual assaults in NH is not possible to ascertain; however, staff-to-resident sexual assault was <1% (per 1,000 residents per year) (Castle, 2012a). The challenges of ascertaining rates of sexual assaults are hampered due to underreporting and the inability to confirm reported incidents (Payne, 2010). While sexual assault is perceived to be the least common form of elder abuse (Castle, 2012a, 2012b), it is also likely to be greatly underreported and has dire outcomes. Within a year of being assaulted, 50% of victims died. Long-term health and medical consequences of sexual assault, within any age group, is underreported (Doak, 2009), though available research suggest sexually assaulted women suffered from 50% to 70% more gynecological, central nervous system, and stress-related problems (Campbell et al., 2002) and are at risk of post-traumatic stress disorder (PTSD) (Dutton et al., 2006). Considering older people have an increased risk of mortality after traumatic experiences (Gowing & Jain, 2007) or if suffering from anxiety disorders (Lenze & Wetherell, 2011), it is reasonable to postulate, the sexual assault can contribute to an accelerated death. Further, such outcomes would be a significant limitation to the investigation and successful prosecution of incidents.

Risk Factors

NHSAV of sexual assault were predominately Caucasian females with a form of mental and physical impairment (Burgess et al., 2005; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003) and perpetrators were predominately Caucasian males (Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003). Perpetrator information was limited, with the majority of research studies failing to identify characteristics beyond race and gender. This is unfortunate and surprising as profiling perpetrators may identify risk factors for offending. As perpetrators comprised both staff and resident this creates very complex issues for identifying and responding to sexual assault incidents. Elder abuse is often framed through medical models, which limits the focus to the health care needs of the victim (Clark & Fileborn, 2011).

Examinations and Investigations

Information regarding medico-legal examinations, injuries, and post-victim response was rare. Although NH residents who were incapacitated were commonly targeted (Burgess et al., 2005; Burgess et al., 2008; Payne, 2010; Ramsey-Klawnsnik et al., 2008), capacity to consent was not addressed in the studies. Unlike resident-staff relationship, sexual activity between residents is not automatically illegal or necessarily problematic, resulting in distortions in the ability to evaluate consent issues, which are readily identified in resident-staff incidents. Research about interventions is

limited and is complicated by a number of factors, including deterioration in health and cognitive abilities of residents (Wilkins, 2015). Addressing this complex issue requires a multi-pronged approach that should consider the role of staff training and institution policy to address consent; autonomy and safety (Connolly et al., 2012).

Medico-legal examinations were infrequent with forensic evidence reported as often being unintentionally destroyed by NH staff prior to the examination process (Burgess et al., 2005). Information regarding victim injuries was also limited (Burgess, Dowdell, et al., 2000; Burgess et al., 2008). Previous research in mixed settings found elderly victims suffer from significant amount of injury to genital and non-genital parts of the body (Burgess et al., 2005). Collection of quality samples from examinations is potentially crucial to sexual assault investigation and prosecution (Burgess et al., 2005; Schafran, 2015). NHs must encompass comprehensive staff training for early detection of sexual assault and the preservation of evidence. Policy for a standard of care is critical as systematic documentation of injury and evidence provides a credible record for enduring court process demands (Burgess et al., 2005).

NHs and regulatory investigative personnel are poorly equipped to appropriately identify and respond to sexual assault, with even less support through institutional policy. Research also suggests there is some disparity in how NH and investigative personnel respond to sexual assault, with limited legal action against perpetrators (Burgess et al., 2005; Burgess, Prentky, et al., 2000; Payne & Cikovic, 1995; Payne, 2010; Ramsey-Klawnsnik et al., 2008; Roberto & Teaster, 2005; Teaster et al., 2007; Teaster & Roberto, 2003, 2004) and few attempts at therapeutic interventions for victims (Teaster et al., 2007; Teaster & Roberto, 2003). This is surprising given the range of emotional, behavioral, and psychological responses of victims (Burgess, Dowdell, et al., 2000; Burgess et al., 2008). Staff training in legislation and practice protocol, creating safe environments through policy and physical design and ensuring systems enabling victims to report, access advocates and a user-friendly complaint system may aid operational practices (Clark & Fileborn, 2011). Psychological services and counseling should be provided for victims of sexual assault (Burgess, 2006). It is unknown if rehabilitation programs targeting perpetrators are valuable as there is an absence of evidence to support any particular programs (Baker, Francis, Hairi, Othman, & Choo, 2016). Research should progress using an ecological perspective, a bifocal framework focusing simultaneously on the victim and institutional caregiver as dyad (Pillemer et al., 2012; Schiamberg et al., 2011).

Sexual assaults of older people remain difficult to characterize owing to the paucity of studies, the diversity of methods, and the lack of detailed information regarding number and nature of incidences (Eckert & Sugar, 2008). Research regarding the impact of sexual assaults has been extensively studied among children, adolescents, and adults, yet research has omitted older people from such scientific enquiry (Burgess, Dowdell, & Brown, 2000). Most studies were published after

2003, suggesting sexual assault in later life is becoming an increasingly recognized issue. Further research should be dedicated to this particularly vulnerable population.

Strength and Limitations

To our knowledge, this is the most recent, extensive systematic review conducted on sexual assault in NH.

A limitation is the exclusion of gray literature, doctoral dissertations and theses, and any form of case reports. Secondly, sample sizes were relatively small and sometimes sampled between studies for different study purposes resulting in a loss of fidelity in the value and comprehensiveness of data. Inconsistencies between definitions of elder assault may have impeded our search results as sexual assault may have been categorized under physical assault when reported. Finally, although our focus was on sexual assault of NH resident, NH staff also experience sexual assault by residents (Banerjee et al., 2012), and so this review only offers a partial picture of the forms of sexual assaults within NH.

Conclusions

This systematic review consolidates current knowledge about sexual assaults among NH residents. There is limited understanding of elder abuse. Future research ought to investigate sexual assault in NH in greater depth and breadth, as all studies were conducted in United States. Research does not adequately portray the characteristics of sexual assaults in NH nationally or globally and so prevention initiatives are restricted. Without a quality standard of holistic research, we cannot begin to properly report, investigate, and manage sexual assaults in NH. Research should seek to broadly operationalize definitions and reporting of sexual assaults in NH to increase the quality and understanding of this phenomenon.

Implications

There are multiple areas to consider for the development of future research, policies, and interventions, some of which are: staff training in detection and reporting sexual assault, NH victim and perpetrator management strategies, and policy reforms aiming to better detect, forensically examine, protect, and reduce sexual assaults in NH. Without a greater understanding of sexual assaults in NH it is difficult to develop effective prevention strategies.

Supplementary Material

Supplementary data is available at *The Gerontologist* online.

Funding

This work was not funded.

Conflict of Interest

There are no conflicts of interest to declare for this manuscript.

References

- Acierno, R., Hernandez, M. A., Amstadter, A. B., Resnick, H. S., Steve, K., Muzzy, W., & Kilpatrick, D. G. (2010). Prevalence and correlates of emotional, physical, sexual, and financial abuse and potential neglect in the United States: The National Elder Mistreatment Study. *American Journal of Public Health*, 100, 292–297. doi:10.2105/AJPH.2009.163089
- Baker, P. R. A., Francis, D. P., Hairi, N. N., Othman, S., & Choo, Y. W. (2016). Interventions for preventing abuse in the elderly. *Cochrane Database of Systematic Reviews* (8), Art. No.: CD010321. doi:10.1002/14651858.CD010321.pub2
- Banerjee, A., Daly, T., Armstrong, P., Szebehely, M., Armstrong, H., & Lafrance, S. (2012). Structural violence in long-term, residential care for older people: Comparing Canada and Scandinavia. *Social Science & Medicine* (1982), 74, 390–398. doi:10.1016/j.socscimed.2011.10.037
- Burgess, A. W. (2006). *Elderly victims of sexual abuse and their offenders*. Retrieved from <https://www.ncjrs.gov/pdffiles1/nij/grants/216550.pdf>
- Burgess, A. W., Dowdell, E. B., & Brown, K. (2000). The elderly rape victim: Stereotypes, perpetrators, and implications for practice. *Journal of Emergency Nursing*, 26, 516–518. doi:10.1067/men.2000.110040
- Burgess, A. W., Dowdell, E. B., & Prentky, R. A. (2000). Sexual abuse of nursing home residents. *Journal of Psychosocial Nursing & Mental Health Services*, 38, 10–18. doi:10.1201/9781420042375.ch4
- Burgess, A. W., Hanrahan, N. P., & Baker, T. (2005). Forensic markers in elder female sexual abuse cases. *Clinics in Geriatric Medicine*, 21, 399–412. doi:10.1016/j.cger.2004.10.005
- Burgess, A. W., Prentky, R. A., & Dowdell, E. B. (2000). Sexual predators in nursing homes. *Journal of Psychosocial Nursing & Mental Health Services*, 38, 26–35. doi:10.1201/9781420042375.ch24
- Burgess, A. W., Ramsey-Klawnsnik, H., & Gregorian, S. B. (2008). Comparing routes of reporting in elder sexual abuse cases. *Journal of Elder Abuse & Neglect*, 20, 336–352. doi:10.1080/08946560802359250
- Burgess, A. W., Watt, M. E., Brown, K. M., & Petrozzi, D. (2006). Management of elder sexual abuse cases in critical care settings. *Critical Care Nursing Clinics of North America*, 18, 313–319. doi:10.1016/j.ccell.2006.05.004
- Campbell, J., Jones, A., Dienemann, J., Kub, J., Schollenberger, J., O'Campo, P., ... Wynne, C. (2002). Intimate partner violence and physical health consequences. *Archives of Internal Medicine*, 162, 1157–1163. doi:10.1001/archinte.162.10.1157
- Castle, N. G. (2012a). Nurse aides' reports of resident abuse in nursing homes. *Journal of Applied Gerontology*, 31, 402–422. doi:10.1177/0733464810389174
- Castle, N. G. (2012b). Resident-to-resident abuse in nursing homes as reported by nurse aides. *Journal of Elder Abuse & Neglect*, 24, 340–356. doi:10.1080/08946566.2012.661685
- Castle, N. G., Ferguson-Rome, J. C., & Teresi, J. A. (2013). Elder abuse in residential long-term care: An update to the 2003 National Research Council Report. *Journal of Applied Gerontology*. doi:10.1177/0733464813492583

- Centres for Disease Control and Prevention. (2015). *The social-ecological model: A framework for prevention*. Retrieved from <http://cdc.gov/violenceprevention/overview/social-ecological-model.html>
- Clark, H., & Fileborn, B. (2011). *Responding to women's experiences of sexual assault in institutional and care settings*. Retrieved from <https://aifs.gov.au/publications/responding-womens-experiences-sexual-assault-institutional-and-care-se>
- Cohen, D., Hays, T., & Molinari, V. (2011). State policies for the residency of offenders in long-term care facilities: Balancing right to care with safety. *Journal of the American Medical Directors Association*, 12, 481–486. doi:10.1016/j.jamda.2010.09.002
- Connolly, M. T., Breckman, R., Callahan, J., Lachs, M., Ramsey-Klawnsnik, H., & Solomon, J. (2012). The sexual revolution's last frontier: How silence about sex undermines health, well-being, and safety in old age. *Journal of American Society on Aging*, 36, 43–52. Retrieved from <http://search.proquest.com/docview/1316580600?accountid=12528>
- Doak, M. J. (2009). Causes, effects, and prevention of domestic violence. In *Information plus reference series. Child abuse and domestic violence* (2009 ed.). Detroit, MI: Gale. Retrieved from <http://link.galegroup.com/apps/docs/EJ3011990107/OVIC?u=schools&xid=8fbd5352>
- Dutton, M. A., Green, B. L., Kaltman, S. I., Roesch, D. M., Zeffiro, T. A., & Krause, E. D. (2006). Intimate partner violence, PTSD, and adverse health outcomes. *Journal of Interpersonal Violence*, 21, 955–968. doi:10.1177/0886260506289178
- Eckert, L. O., & Sugar, N. F. (2008). Older victims of sexual assault: An underrecognized population. *American Journal of Obstetrics and Gynecology*, 198, 688.e681–688.e687. doi:10.1016/j.ajog.2008.03.021
- Gibbs, L. M., & Mosqueda, L. (2004). Confronting elder mistreatment in long-term care. *Annals of Long Term Care*, 12, 30–35. Retrieved from http://centeronelderabuse.org/docs/ConfrontingEMinLTC_GibbsMosqueda.pdf
- Gowing, R., & Jain, M. K. (2007). Injury patterns and outcomes associated with elderly trauma victims in Kingston, Ontario. *Canadian Journal of Surgery*, 50, 437–444. Retrieved from <http://go.galegroup.com.ezproxy.lib.monash.edu.au/ps/i.do?p=AONE&sw=w&u=monash&v=2.1&it=r&cid=GALE%CA172330159&asid=f592da038cfa31a614b0c6c7949ad630>
- Jayawardena, K. M., & Liao, S. (2006). Elder abuse at end of life. *Journal of Palliative Medicine*, 9, 127–136. doi:10.1089/jpm.2006.9.127
- Kaspiew, R., Carson, R., & Rhoades, H. (2016). *Elder abuse: Understanding issues, frameworks and responses*. Australian Institute of Family Studies. Retrieved from <https://aifs.gov.au/publications/elder-abuse>
- Lenze, E. J., & Wetherell, J. L. (2011). A lifespan view of anxiety disorders. *Dialogues Clinical Neuroscience*, 13, 381–399. Retrieved from <http://ncbi.nlm.nih.gov/pmc/articles/PMC3263387/>
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., ... Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: Explanation and elaboration. *British Medical Journal*, 339, b2700. doi:10.1136/bmj.b2700
- Malmedal, W., Iversen, M. H., & Kilvik, A. (2015). Sexual abuse of older nursing home residents: A literature review. *Nursing Research and Practice*, 2015, Article ID 902515. doi:10.1155/2015/902515
- Morgan, A., & Chadwick, H. (2009). *Key issues in domestic violence*. Australian Institute of Criminology. Retrieved from <http://www.aic.gov.au/publications/current%20series/rip/1-10/07.html>
- National Institute of Health. (2014). *Quality assessment tool for observational cohort and cross-sectional studies*. Retrieved from <http://www.nhlbi.nih.gov/health-pro/guidelines/in-develop/cardiovascular-risk-reduction/tools/cohort>
- Navarro, A. E., Gassoumis, Z. D., & Wilber, K. H. (2013). Holding abusers accountable: An elder abuse forensic center increases criminal prosecution of financial exploitation. *The Gerontologist*, 53, 303–312. doi:10.1093/geront/gns075
- Payne, B. K. (2010). Understanding elder sexual abuse and the criminal justice system's response: Comparisons to elder physical abuse. *Justice Quarterly*, 27, 206–224. doi:10.1080/07418820902763087
- Payne, B. K., & Cikovic, R. (1995). An empirical examination of the characteristics, consequences, and causes of elder abuse in nursing homes. *Journal of Elder Abuse and Neglect*, 7, 61–74. doi:10.1300/j084v07n04_05
- Pillemer, K., Chen, E. K., Van Haitsma, K. S., Teresi, J., Ramirez, M., Silver, S., ... Lachs, M. S. (2012). Resident-to-resident aggression in nursing homes: Results from a qualitative event reconstruction study. *The Gerontologist*, 52, 24–33. doi:10.1093/geront/gnr107
- Ramsey-Klawnsnik, H., & Teaster, P. B. (2012). Sexual abuse happens in healthcare facilities - what can be done to prevent it. *Generations*, 36, 53–59. Retrieved from <http://search.proquest.com/docview/1316580356?accountid=12528>
- Ramsey-Klawnsnik, H., Teaster, P. B., Mendiondo, M. S., Marcum, J. L., & Abner, E. L. (2008). Sexual predators who target elders: Findings from the first national study of sexual abuse in care facilities. *Journal of Elder Abuse & Neglect*, 20, 353–376. doi:10.1080/08946560802359375
- Roberto, K. A., & Teaster, P. B. (2005). Sexual abuse of vulnerable young and old women: A comparative analysis of circumstances and outcomes. *Violence Against Women*, 11, 473–504. doi:10.1177/1077801204274329
- Rosen, T., Lachs, M. S., Bharucha, A. J., Stevens, S. M., Teresi, J. A., Nebres, F., & Pillemer, K. (2008). Resident-to-resident aggression in long-term care facilities: Insights from focus groups of nursing home residents and staff. *Journal of the American Geriatrics Society*, 56, 1398–1408. doi:10.1111/j.1532-5415.2008.01808.x
- Schafran, L. H. (2015). Medical forensic sexual assault examinations: What are they, and what can they tell the courts? *Judges Journal*, 54, 16–20, 43. Retrieved from <http://search.proquest.com/docview/1728399627?accountid=12528>
- Schiemberg, L. B., Barboza, G. G., Oehmke, J., Zhang, Z., Griffiore, R. J., Weatherill, R. P., ... Post, L. A. (2011). Elder abuse in nursing homes: An ecological perspective. *Journal of Elder Abuse & Neglect*, 23, 190–211. doi:10.1080/08946566.2011.558798
- Teaster, P. B., Ramsey-Klawnsnik, H., Mendiondo, M. S., Abner, E., Cecil, K., & Tooms, M. (2007). From behind the shadows: A profile of the sexual abuse of older men residing in nursing homes. *Journal of Elder Abuse & Neglect*, 19, 29–45, table of contents. doi:10.1300/j084v19n01_03

-
- Teaster, P. B., & Roberto, K. A. (2003). Sexual abuse of older women living in nursing homes. *Journal of Gerontological Social Work*, 40, 105–119. doi:10.1300/j083v40n04_08
- Teaster, P. B., & Roberto, K. A. (2004). Sexual abuse of older adults: APS cases and outcomes. *The Gerontologist*, 44, 788–796. doi:10.1093/geront/44.6.788
- Wilkins, J. M. (2015). More than capacity: Alternatives for sexual decision making for individuals with dementia. *The Gerontologist*, 55, 716–723. doi:10.1093/geront/gnv098
- World Health Organization. (2003). *Guidelines for medico-legal care for victims of sexual violence*. Retrieved from <http://apps.who.int/iris/bitstream/10665/42788/1/924154628X.pdf>