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Sexual Aggression between Residents in Nursing Homes: Literature Synthesis for an Underrecognized Issue

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Abstract

Evidence exists suggesting that most sexual aggression against older adults occurs in long-term care facilities. Fellow residents are the most common perpetrators, often due to inappropriate hypersexual behavior caused by dementing illness. This resident-to-resident sexual aggression (RRSA) is defined as sexual interactions between long-term care residents that in a community setting would likely be construed as unwelcome by at least one of the recipients and have high potential to cause physical or psychological distress in one or both of the involved. Although RRSA may be common and physical and psychological consequences for victims may be significant, this phenomenon has received little direct attention from researchers to date. We review the existing literature and relevant related research examining elder sexual abuse and hypersexual behavior to describe the epidemiologic features of this phenomenon, including risk factors for perpetrators and victims. Preventing and managing sexual aggression in nursing homes is made more challenging due to the legitimate and recognized need for nursing home residents, even those with advanced dementing illness, to sexually express themselves. We discuss the ethical dilemma this situation creates and the need to evaluate the capacity to consent to sexual activity among residents with dementing illness and to re-evaluate capacity as the diseases progress. We offer suggestions for managing RRSA incidents and for future research, including the importance of designing effective interventions.

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Dr. Pillemer has served as an expert witness in civil cases of elder mistreatment.

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INTRODUCTION

A common and accepted definition of sexual assault is: non-consensual physical contact of a sexual nature, not necessarily involving intercourse. If this definition is applied to the epidemiology of sexual assault of older adults, most sexual assaults of older persons probably occur in nursing homes[1, 2] rather than in the community. And, contrary to popular perception, most sexual abuse of this type commonly involves nursing home residents assaulting other residents[3-5] rather than staff assaulting residents. A representative case of this resident-to-resident sexual aggression (RRSA) was described in a 2001 report of the US House of Representatives Special Investigations Division[6] entitled Abuse of Residents is a Major Problem in U.S. Nursing Homes. In this case, a male resident with an extensive history of inappropriate sexual contact was discovered by staff lying on top of a female resident with his pants and underwear off, attempting to pry her legs apart. This RRSA may be largely due to disinhibited hypersexual behavior that occurs in older adults with dementia.

Preventing and managing sexual aggression in nursing homes is made more challenging due to the legitimate and recognized need for nursing home residents, even those with advanced dementing illness, to sexually express themselves. Thus, nursing home clinicians, staff, and administrators are faced with the challenge of maintaining the delicate balance between facilitating consensual sexual expression and ensuring resident safety from aggressive behavior. Complicating this issue further is the need to evaluate the capacity to consent to sexual activity among residents with dementing illness and the challenges associated with re-evaluating capacity as the diseases progresses.

Although RRSA occurs in nursing homes and other long term care settings, has profound clinical implications, and raises vexing ethical and policy issues, it remains virtually unstudied. Our goal is to raise awareness about this challenging problem, provide preliminary practical suggestions for nursing homes trying to prevent and manage it, and propose an agenda for future research.

METHODS

As RRSA is a medical and psychosocial problem which may have a wide range of physical, mental, and social consequences for victims and perpetrators, our search for relevant publications included medical, psychological, and social-science literature. We searched the following databases: PubMed, EMBASE, CINAHL, PsycInfo, AgeLine, Sociological Abstracts, and ISI Social Sciences Citation Index from 1980 to December 2009. Keyword search strategies designed to exhaust the literature included combining "elder abuse" and "sexual abuse" as well as searching both for "hypersexuality" and inappropriate sexual behavior." All searches were combined with "nursing home," "long-term care," or "residential facilities" to focus on studies in these settings. Additionally, reference lists of selected articles were reviewed to identify additional potentially relevant studies.[7, 8]

RESULTS

We found only 8 original studies that focus directly on resident-to-resident sexual aggression and only a single review article[9] that focuses exclusively on RRSA. The original

studies are summarized in Table 1. As this direct research is limited to small case series and little is currently known about RRSA, this preliminary literature synthesis of the phenomenon also includes other relevant related literatures such as elder sexual abuse and dementia-related inappropriate sexual behavior. Although these related studies do not directly address RRSA, they provide indirect preliminary evidence that may shed light on aspects of the phenomenon and suggest directions for future research.

Definition

We define resident-to-resident sexual aggression (RRSA) in long-term care facilities as sexual interactions between long term care residents that in a community setting would likely be construed as unwelcome by at least one of the recipients and have high potential to cause physical or psychological distress in one or both of the involved.

Within this general definition, RRSA constitutes a wide spectrum of behaviors. The National Center of Elder Abuse definition of sexual abuse includes: unwanted touching, all types of sexual assault or battery, such as rape, sodomy, coerced nudity, and sexually explicit photographing.[10] Commentators have enumerated other behaviors that comprise elder sexual abuse, including several that are relevant for RRSA: sexual harassment, forcing to view pornography, exhibitionism, and threatening to molest or rape.[11] In addition, sexual contact with any person incapable of giving consent is considered sexual abuse.[10] This definition has profound implications for a population in which the prevalence of incapacity is very high in comparison to community-dwelling subjects. Assessing capacity and differentiating between consensual and non-consensual sexual behaviors creates significant challenges for nursing homes (see "Guidance for Physicians, Administrators, and Staff" below).

Any definition of RRSA is necessarily problematic because some behaviors in cognitively impaired persons that are perceived as inappropriate or aggressive may not in fact be motivated by sexual desire.[12, 13] Rather, such behaviors may be simply an expression of a need for intimacy or reassurance, and the person may not perceive the difference between, for example, touching a breast and touching a shoulder. Demented persons are also often not acutely aware of their surroundings, so they may engage in behavior such as disrobing or masturbating that may be appropriate in private but not in public. Behaviors such as undressing or fondling genitals may be motivated not by sexual feelings but by uncomfortable clothes, clothes that are too hot, or discomfort or itching.[14] Further, a cognitively impaired resident may misinterpret the activities of caregivers, such as a male patient misconstruing hygiene care provided by a female nursing assistant as a romantic or sexual advance.[15] In some cases, cognitive impairment may cause some residents to misidentify others as their spouses or lovers and attempt to get into bed with other residents.[3]

EPIDEMIOLOGIC FEATURES

Incidence and Prevalence

We found no studies to date that have systematically examined the prevalence of elder sexual abuse in long-term care facilities. Existing research on the frequency of elder sexual abuse is based exclusively on official reports of sexual abuse and gives little insight into the problem's actual incidence and prevalence. Sexual violence is the type least likely to be acknowledged, detected, or reported to Adult Protective Services.[16] This is due to the significant barriers to reporting elder sexual abuse.[17] The victim may be reluctant to report due to embarrassment, guilt, shame, or fear of reprisal.[18, 19] Further, the victim may be unable to report the incident due to cognitive or communication impairment.[19, 20] In some cases of severe dementia, the victim may not even perceive that he or she has been abused.

Even if an older person attempts to report sexual abuse, the incident may not be investigated properly because it is erroneously assumed that, due to her cognitive impairment or age, she cannot be an object of sexual desire and abuse. Due to these barriers, the National Center on Elder Abuse has opined that the "extent of elder sexual abuse remains unknown."[21] In long-term care facilities, where victims are more likely to be physically dependent, cognitively impaired, and unable to communicate, it is reasonable to assume that the rate of incident reporting may be even lower than in the community and complaints may frequently be even more difficult to substantiate. Notably, a recent mock jury study found that jurors often questioned the credibility of older adults in elder sexual abuse cases and were even less likely to return a guilty verdict if the incident occurred in a nursing home.[22]

Existing examinations of reported cases of elder sexual abuse, though limited by the methodological considerations described above, suggest that a significant fraction of these cases occur in nursing homes and are perpetrated by residents. For example, one study of all elder sexual abuse cases investigated in Virginia from July 1996 - June 2001 by its Adult Protective Services program found that the majority of incidents (72%) occurred in nursing homes, not the community, and most of these abusive incidents (69%) were perpetrated by other residents rather than staff.[1] A national study of sexual abuse in care facilities found that, while the largest number of (43%) of alleged perpetrators were facility staff, residents represented the overwhelming majority (78%) of confirmed perpetrators.[23] A case series reporting on 50 substantiated cases of sexual abuse of older women in nursing homes found that 90% of the perpetrators were male facility residents.[24] An examination of sexual abuse of male residents, a victim group often neglected, reviewed all cases reported to Adult Protective Services (APS) in five states from May-October 2005 and found a resident was the perpetrator in 67% of cases ultimately substantiated.[25]

Insight into the potential prevalence of RRSA is also provided by research on inappropriate sexual behavior among cognitively impaired older persons, often referred to in the literature as *hypersexuality*. Researchers found that 7% of community-dwelling Alzheimer disease patients displayed sexual disinhibition.[26, 27] Hypersexuality would be expected to be even more prevalent in nursing homes, where cognitive impairment is present in 80-90% of nursing home residents in some studies,[28] and well over 50% have dementing illnesses.[29] A study observing 124 nursing home residents with dementia for only one week noted inappropriate sexual behavior in 4% of residents during this short period.[30] In another study, previous caregivers reported inappropriate sexual behavior in 5% of residents upon initial admission to a nursing home.[31] Given that primary caregivers may be reluctant to report this type of behavior and that residents' cognitive impairment will likely worsen during their stay in the nursing home, this study underscores the potential prevalence of this phenomenon. In a 400-bed extended care unit for aged men, researchers found that as many as 25% of the residents engaged in inappropriate sexual behavior.[32] A study in Japanese group homes for older adults with dementia found that inappropriate sexual behavior was the symptom creating the most stress for caregivers.[33]

Research on hypersexuality in nursing homes has thus far largely been independent from research into sexual abuse in nursing homes, neglecting the potential effects of hypersexual behavior on victimized fellow residents. We hope that this article will provide a bridge between these two areas of inquiry. Notably, evidence of the impact of hypersexual behaviors on others already exists. A survey of staff of 300 nursing homes in three states found that 17-25% of residents had unpleasant experiences from the hypersexual behavior of other residents and that 20-30% of instances of sexual behavior required staff intercession.[34]

Risk Factors

In many cases of RRSA, both the perpetrator and victim may be considered victims, as the "perpetrator" is a sufferer of a neurodegenerative illness such as Alzheimer disease. Currently, little is known about the risk factors for perpetrating or being victimized by RRSA, but literature in related areas, though limited due to its case series nature, offers preliminary insight and suggests areas for future inquiry.

Perpetrators—Existing case series research on hypersexual behaviors suggests potential risk factors for behaving sexually aggressively towards fellow residents. Men who are cognitively impaired are more likely to display hypersexual behaviors than women with cognitive impairment.[35] Case reports exist, however, of cognitively impaired women who suffer from erotomania.[36] Research has suggested that the more severely cognitively impaired patients are, the more prone they are to inappropriate sexual behaviors.[37] Dementia affecting the frontal or temporal lobe is generally thought to be more likely to trigger hypersexual behavior than impairment affecting other brain regions,[38] potentially from decreased cortical executive inhibition required to keep sexual feelings suppressed.[15] In one recent study, researchers found that while disinhibited behavior was more likely associated with non-Alzheimer dementias, intimacy-seeking hypersexuality was more likely associated with Alzheimer disease.[27] In addition to dementia, hypersexuality may occur as a result of delusional psychosis brought on by drugs, such as dopaminergics taken for Parkinson Disease.[39] Notably, a recent nationwide study of sexual abuse in care facilities found that 40% of resident perpetrators had cognitive impairment, 32% had psychiatric impairment, and 28% had physical impairment.[23]

There is also increasing concern that sexually aggressive behaviors in nursing homes also may be perpetrated by non-demented residents who "prey" on other residents.[40] A recent report from the U.S. Government Accountability Office (GAO) found 700 registered sex offenders were living in nursing homes or intermediate care facilities for people with mental retardation, with ~3% of all nursing homes that receive Medicare and Medicaid funds housing at least one sex offender during 2005.[41] The report also admitted that this number was an underestimate, and the actual number may be twice as large. The extent to which nursing homes are notified regarding the status of sex offenders probably varies significantly, as does the degree to which this information is shared by facility administrators with their staff.

Victims—The limited research on victims of elder sexual abuse suggests that they are likely to be cognitively impaired. In case series, 60-67%[23, 42] of victims were diagnosed with some form of dementia, and researchers found that most of the victimized older adults needed help with orientation to time (86%) and place (81%).[1]

Victims were also commonly physically impaired, with 66% needing at least some physical assistance with ambulation and 15% not ambulatory.[1] Half of the victims required assistance with ADLs and only 1/3 were able to walk without assistance.[23] In addition, most victims (89%) were unable to manage their own finances, even with assistance.[1]

Most sexual abuse victims identified are women, with studies finding female victims in 93.5-95% of reported cases.[1, 43] Nevertheless, a study of 26 male victims found that they had similar characteristics to female victims: most (77%) required physical or mechanical assistance with ambulation, 15% were not ambulatory and 64% required assistance managing their finances.[25] Notably, fewer of these male victims were cognitively impaired, with 46% not oriented to place and 61% not oriented to time.[25]

Outcomes

Little is currently known about the outcomes of RRSA as no longitudinal studies have been conducted, but existing case series evidence in related areas suggests it may result in severe consequences for victims and perpetrators. In patients of all ages, rape and sexual assault are violent crimes that have the potential to cause both serious physical and psychological consequences, but these consequences may be more severe for older persons, who may have less physiologic reserve to weather the impact. An examination of 20 victims of sexual assault in nursing homes found that 11 of the victims died within 12 months of the assault, underscoring the potential severity of the associated trauma.[44, 45]

Researchers have found that older adult rape victims are more likely than younger victims to sustain genital injury during a sexual assault,[46] with injury in nearly half of cases and surgical repair required in 28%.[47] This phenomenon may be due to reduced estrogen levels in postmenopausal women that causes thinning and atrophy of the vaginal wall.[46, 47] Older adult victims are commonly physically frail with co-morbid conditions and thus may be at greater risk for physical injury during an assault.[48] For example, a victim with osteoporosis may sustain broken ribs if an assailant lies on top of him or her. Also, the stress of sexual assault may potentially exacerbate chronic conditions such as hypertension and diabetes.[49]

Sexually transmitted infections (STIs) may also be passed on during RRSA. Despite stereotypes, there is an increasing recognition that older adults can be carriers and transmitters of STIs, and the issue, historically ignored, is receiving increasing attention in the literature.[50, 51] Currently, more than 65 million Americans have incurable STDs, with several million new infections each year, of whom 50% develop infections that are lifelong.[52] Older women have a greater risk of contracting STIs during intercourse than younger women, because increased postmenopausal vaginal mucosal friability can cause abrasions and tears, making STI transmission more probable.[53, 54] Surveillance studies in Los Angeles and Washington state suggest that incident infections occur at all ages,[55, 56] with nongonococcal urethritis the most common incident STI in males aged 50-80 and genital herpes the most common in women.[56]

HIV / AIDS may also be contracted during RRSA. Ten percent of all Americans living with HIV are over 50 years old,[50] and, as this disease is probably dramatically underdiagnosed among older adults, the actual number of diseased is likely much greater.[57] Residents with HIV are not uncommon in some nursing homes,[58] as HIV can produce frailty, social isolation, and significant caregiver burden that has been compared to the burden created by Alzheimer's disease.[59] Advanced HIV may cause cognitive and behavioral disturbances, which may progress to AIDS dementia complex,[59] a condition that has been associated with hypersexuality in the literature.[60]

Notably, STI diagnosis has actually assisted elder abuse case finding, as the unexpected presence of a sexually transmitted disease may lead to the discovery of sexually aggressive behavior in a nursing home.[44] The literature describes, for example, an incident where elder sexual aggression was discovered after two residents on the same unit were diagnosed with venereal warts (human papillomavirus) within a 6-month period.[44] This type of symptom may be one of the few pathognomonic signs for elder abuse.

In addition to the physical and disease-related consequences of RRSA, there may be significant psychological, emotional, and behavioral consequences for victims. Researchers have described several symptoms related to post-traumatic stress.[44, 61] Victims become agitated, anxious, and more frequently display anger and non-compliance.[62] Some refuse all personal care.[42] Victims suffer from appetite changes[63] and sleep disturbances. Some attempt to wear multiple layers of clothing to cover and protect their bodies.[9] Sexually

abused nursing home residents may even refuse to be bathed by a CNA who resembles the perpetrator.[64] Although community-based studies have shown that older adults are less likely than younger adults to suffer from post-traumatic stress symptoms and depression after sexual assault,[65] previous sexual assault during one's life has been strongly associated in older adults with depression, panic disorder, generalized anxiety disorder, and post-traumatic stress disorder.[66] These age-related differences in frequency may be due to older adults minimizing reports of psychological symptoms due to previous cultural mores that discouraged such reporting.[65] Also, many anxiety-related difficulties among older persons are manifested in physical complaints, raising the concern that these psychological issues may be incorrectly attributed by staff to physical ailments or age-related physical decline.[67]

Ethical and Policy Issues in RRSA

The issues raised by sexually aggressive behavior by residents in nursing homes are made more complicated by the recently acknowledged importance of healthy sexual expression among older persons, including those in long-term care facilities and with cognitive impairment.

Qualitative studies have found that sex is an important component of close emotional relationships later in life,[68] and older persons with an active sex life and intimate relationships are more likely to report a higher level of life satisfaction[69] and quality of life.[70] Sexual activity even has been found to have positive physiological consequences, including arthritis prevention by maintaining a larger range of motion for joints, increasing release of cortisone, which may prevent rheumatoid arthritis, and lubricating an atrophic vagina through stimulation of blood flow.[69]

A new more tolerant, permissive attitude towards consensual sexual practices is currently growing in nursing homes, with increased staff education[71, 72] and detailed sexuality policies within residents' rights.[71] Literature is developing that discusses how nursing homes can facilitate and encourage relationships, including descriptions of weddings between residents that have been facilitated by staff[73] and even dispensation of sildenafil to nursing home patients.[74] This has the potential for significant improvements in quality of life, but it raises complicated issues of coercion and consent capacity. This is of particular concern if one partner is considerably more cognitively impaired than the other.

Literature exists discussing the ethics of allowing and facilitating sexual relationships in long-term care.[74-79] To effectively evaluate whether nursing home residents should be able to participate in intimate relationships, nursing home staff must assess each resident's sexual consent capacity. Several approaches for assessment of sexual activity within nursing homes have been presented in the literature,[74] based on the resident's ability to perform sexual acts voluntarily and to understand the consequences of his/her actions. Some commentators also suggest considering whether the current desires are consistent with residents' pre-demented behaviors and values.[74] Regardless of which framework is employed, assessing the sexual consent capacity of cognitively impaired older adults is complex, challenging, and not absolute. Certain individuals may have capacity to consent to specific sexual acts but not to others or to consent to sexual acts with specific partners but not with others.[80] A partially demented person may become confused or disoriented during sexual activity, making consent uncertain.[74, 80-83] Also, a cognitively impaired resident may not comprehend a partner's sudden request to stop sexual activity.[74]

If sexual activity between residents is clearly ongoing or if residents approach staff requesting arrangements be made so that they may be sexually active, the capacity of each participant should be assessed and documented. We recommend initial assessment by a geriatrician, an internist experienced in the care of older adults, a psychiatrist or a

psychologist. Ideally, consent capacity is reviewed by an interdisciplinary team of nursing home staff.[84] Commentators have published sample scripts for evaluating a resident's consent capacity.[80]

When evaluating the resident's capacity, nursing home staff must consider which sexual acts a resident may consent to and with which partners. Any accommodations made by the nursing home to facilitate the sexual activity should take this into account. Also, for residents with cognitive impairment, due to the progressive nature of the illness, the team must decide how frequently to re-evaluate them to ensure that they still have capacity.

Another challenging ethical issue is whether to allow sexual contact between married nursing home residents when one partner becomes too cognitively impaired to consent.[85] While a strict definition of sexual abuse as non-consensual sexual activity of any kind would make this activity impermissible,[85] some commentators have argued that sexual contact between loving spouses may be allowed even when one partner cannot consent.[86]

Sexuality in long-term care facilities is a complex, challenging, and evolving issue. Ethically, it involves two competing principles: (1) the nursing home staff's desire to honor resident rights as autonomous adults and allow them the highest possible quality of life, and (2) the need to protect them from physical and psychological harm. Navigating between these principles is often difficult, but it is encouraging to see nursing homes focusing more on resident rights and making policy changes to facilitate the types of romantic relationships that can be very fulfilling later in life. At the same time, it is important to acknowledge the potential dangers inherent in these more permissive sexual policies and to develop organizational processes to ensure that all participants in sexual activities are engaging in these activities safely, willingly, and with knowledge of the consequences.

The delicate balance between ensuring opportunities for legitimate sexual expression and protecting nursing home residents from sexual aggression should be considered by policymakers who should issue clear guidelines for assessing capacity to consent and for reporting incidents of RRSA. Similar policies should be considered for assisted living facilities, where residents may be at even greater risk because of the general higher level of functioning and mobility in these facilities in comparison to skilled nursing homes, and the relatively lower number of staff to identify RRSA and intervene. Nursing home responsibility to identify in advance and prevent this behavior and liability for failure to protect residents should be evaluated. Also, standardizing notification to nursing homes about residents who are sex offenders should be considered.

Research is Needed to Provide Guidance for Physicians, Administrators, and Staff

Virtually no evidence-based research exists currently to guide clinicians on how to prevent or manage RRSA and many aspects of the phenomenon are poorly understood. Despite this, resident-to-resident sexually aggressive behavior detracts from quality of life in long-term care and incidents may also predispose nursing homes to state and federal sanctions and civil lawsuits,[3, 9] so guidance on prevention and management is imperative.

In cases of clear RRSA where consent to sexual contact by either or both parties is not provided or cannot be reliably ascertained, disclosure is the best policy. Nursing homes should report the behavior to the family or guardian of both perpetrator and victim and should report the incident to their relevant state agency that receives reports of abuse.[87] Unfortunately, state departments of health currently have a variety of reporting criteria, many of which are nebulous and not operationalized. It is to be hoped that more guidance for facilities and staff vis-a-vis reporting is forthcoming in the future as this issue becomes better recognized. Ramsey-Klawsnik[9] has suggested a strategy for management of sexually

aggressive resident behavior witnessed by staff that interested readers may refer to for more information.

Nursing home medical and care staff should be vigilant for signs and symptoms of sexual abuse.[9, 87, 88] Indications that sexually aggressive behavior may be occurring include, for example, when one or more female residents consistently avoid contact with a particular male resident.[9]

All individuals with hypersexual behavior or possibly hypersexual behavior should be seriously evaluated by staff, ideally in a multidisciplinary[20] fashion. These behaviors should not be ignored, as they may escalate quickly into a dangerous situation outside the view of staff members or be associated with other dementia-related behaviors that are potentially injurious. For clear situations of unwelcome RRSA there are a variety of behavioral modification interventions,[3, 12, 89-91] which, although not directly studied for RRSA and based on only case series data, have at least some clinical or theoretical basis in the literature.[3, 90-93] These are listed in Table 2. Geriatricians and nursing home staff are experienced in managing dementia-related behaviors and should be empowered to do so. They may also be guided in management strategies by the related literature identifying and examining non-pharmacologic strategies for agitated, aggressive or inappropriate behavior in dementia.[94-96]

Pharmacologic options are described in Table 3,[35, 97-101] but readers should be cautioned that their use is controversial and not based on strong evidence. Currently, research includes only cases studies and case reports in male patients. [35, 101] Evidence-based research is needed to identify effective strategies to manage hypersexual behavior.

Future Directions for Research—Although limited empirical data exist about RRSA, evidence exists suggesting that RRSA may be common, underreported, and may have a profound and lasting effect on victims. Elder sexual assault is a challenging topic to study, but researchers have been making progress in improving methodology.[66] Future RRSA research will improve understanding of the phenomenon, and priorities should focus on producing results that can be helpful to nursing home residents, staff, and administrators. Priorities include qualitative studies to understand and characterize the full spectrum of RRSA and to develop measurement tools, descriptive epidemiology to evaluate the incidence, prevalence, and outcomes of the phenomenon, and analytic epidemiologic studies to identify risk factors for sexually aggressive behavior towards other residents and for being sexually victimized. Ultimately, evidence-based research should be conducted on potential interventions to prevent or manage RRSA. Such efforts will empower nursing home administrators and staff with tools to effectively control this problem while simultaneously providing residents with an improved quality of life through intimacy and sexual expression

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Table 1

Articles describing resident-to-resident sexual aggression in nursing homes *

Study	Study Characteristics†	Measures	Findings‡	Conclusions§
Ramsey-Klawsnik et al[23]	-case series in nursing homes, including both resident and non-resident perpetrators -124 cases of alleged elder sexual abuse reported to APS in 5 states (NH, OR, TN, TX, WI) over 6-month period	victim characteristics including cognitive status, perpetrator characteristics, victim outcomes, perpetrator outcomes, legal outcome of case	-41% of alleged perpetrators were facility residents -78% of confirmed perpetrators were facility residents -21% of resident perpetrators had cognitive impairment, 15% had physical disabilities, and 18% had a psychiatric diagnosis -48% of alleged victims required assistance in all activities of daily living -67% of alleged victims needed at least some physical assistance with ambulation, 17% not ambulatory -97% of alleged victims unable to manage finances independently -50% of alleged victims had difficulty with comunication, 7% unable to communicate in any way -73% of alleged resident perpetrators were transferred to another facility, 21% received increased supervision after incident reporting -none of the 32 confirmed sexual perpetrators (residents, facility staff, etc.) were arrested	-alleged sexual abuse by resident perpetrators substantiated at much higher rate than facility employee perpetrators, suggesting that employees may be erroneously accused more frequently, employees may be more able to conceal evidence, or employees may receive additional protections during investigation -lack of arrests despite confirmed abuse suggests that significantly enhanced criminal justice involvement needed in facility abuse matters
Rosen et al[3]	-qualitative focus group study in nursing homes focusing on resident perpetrators only -16 focus groups with 7 residents and 96 staff members from multiple clinical and nonclinical occupational groups in an urban long-term care facility	content, themes analyzed qualitatively and quantitatively using nVivo 8 software	-38% of focus groups discussed witnessing sexual aggression -types of sexual aggression witnessed included attempting to get into bed with another resident, physical abuse / inappropriate touching, and verbal sexual abuse	-resident-to-resident aggression in nursing homes is a potentially common phenomenon with important consequences for affected victims, perpetrators, and facilities -further epidemiologic research is necessary to more fully describe the phenomenon and identify risk factors and preventative strategies
Teaster et al, 2007[25]	-case series in nursing homes, including both resident and non-resident perpetrators -26 cases of alleged sexual abuse of older men reported to APS in 5 states (NH, OR, TN, TX, WI) over 6-month period	victim characteristics including cognitive status, perpetrator characteristics, victim outcomes, perpetrator outcomes, legal outcome of case	-29% of cases had resident perpetrator -67% of cases ultimately substantiated had resident perpetrator -85% of victims oriented to person, 54% oriented to place, and 39% oriented to time -77% of victims were not ambulatory or required physical or mechanical assistance -64% of victims unable to manage their own finances or needed assistance -most ocmmon types of reported abuse were fondling (35%) and inappropriate sexual behavior related to sexual interest in the victim's body (27%)	-sexual abuse of older men often difficult to substantiate, even when witnessed -sexual abuse by another male resident may be easier to substantiate than that by other perpetrators, such as staff -elderly male victims of sexual abuse have significant physical impairment but have less cognitive impairment than victims in other studies
Burgess and Phillips[42]	-case series (letter to the editor) in the community and in nursing homes	victim characteristics including cognitive status and behavior	-60% of victims diagnosed with some form of dementia -significantly fewer arrests, indictments, and convictions of perpretrator when victim has	-demented victim's frequent inability to provide verbal account of event(s) may contribute to reduction in identification and prosecution of perpetrators

Study	Study Characteristics†	Measures	Findings‡	Conclusions§
	-284 cases of elder sexual abuse referred to law enforcement, APS, forensic nurse examiner, or prosecutor	patterns after incident, legal outcome of case	diagnosis of dementia	-behavioral signs of distress including withdrawing to a fetal position or repeatedly refusing personal care commonly exist in non-verbal cognitively impaired victims and may be important early clue for detecting sexual abuse
Teaster and Roberto, 2004[1]	-case series in the community and in nursing homes -82 cases of elder sexual abuse representing all cases investigated by Virginia APS for 5-year period	victim characteristics including cognitive status, perpetrator characteristics, victim outcomes, perpetrator outcomes, legal outcome of case	-72% of incidents occurred in nursing homes -69% of incidents in nursing homes were perpetrated by other residents -86% of the victims needed help with orientation to time and 81% with orientation to place -66% of victims needed at least some physical assistance with ambulation and 15% not ambulatory -89% of victims unable to manage their own finances, even with assistance	-elder sexual abuse may be more common in nursing homes than in the community -residents may more commonly be perpetrators than staff members -victims typically cognitively impaired, requiring physical assistance, and dependent in instrumental activities of daily living
Teaster and Roberto, 2003[24]	-case series in nursing homes, including both resident and non-resident perpetrators -50 substantiated cases of sexual abuse of older women in nursing homes investigated by Virginia APS over a 5-year period	victim characteristics including cognitive status, perpetrator characteristics, victim outcomes, perpetrator outcomes, legal outcome of case	-90% of the perpetrators were male facility residents -women aged 80 and over more likely to be sexually abused than those aged 70-79 and more likely to suffer multiple types of sexual abuse -most common types of reported abuse were sexualized kissing and fondling (76%) and unwelcome sexual interest in the woman's body -28% of alleged perpetrators had untreated psychiatric illness -73% of the victims needed help with orientation to time and 57% with orientation to place -72% of victims needed at least some physical assistance with ambulation and 6% not ambulatory -94% of victims unable to manage their own finances, even with assistance -12% of victims received physical or psychological treatment for abuse -3 of the alleged perpetrators were prosecuted and 1 was convicted	-overwhelming majority of identified abusers were facility residents, suggesting this is an important category of potential perpetrators and that staff training, adequate staffing levels, appropriate resident placement, and appropriate resident monitoring are imperative -older female nursing home patients and those with self-care limitations likely more vulnerable to sexual abuse -additional medically-related services should be considered for victims
Teaster et al, 2001[2]	-case series in the community and in nursing homes -42 substantiated cases of elder sexual abuse reported to Virginia APS for first 3 years of an intended 5-year study period	victim characteristics including cognitive status, perpetrator characteristics, victim outcomes, perpetrator outcomes, legal outcome of case	-81% of incidents occurred in nursing homes -88% of incidents in nursing homes were perpetrated by other residents -88% of the victims needed help with orientation to time and 85% with orientation to place -79% of victims needed at least some physical assistance with ambulation and 24% not ambulatory -93% of victims unable to manage their own finances, even with assistance	-elder sexual abuse reported more commonly in nursing homes than in the community, perhaps due to additional oversight in institutional setting -victims typically suffer from some form of dementing illness -research preliminary and provides only descriptive picture of reported cases of elder sexual abuse
Burgess et al[44]	-case series in nursing homes, including both resident and non-resident perpetrators -20 cases of elder sexual abuse in nursing homes referred for forensic evaluation	victim characteristics including 1-year mortality, perpetrator characteristics, forensic evidence	-11 of 20 victims died within 12 months of assault -12 of 20 victims had dementia or Alzheimer disease and 5 of 20 had other cognitive or neurological disorder -10 of 20 victims had forensic examinations performed, and 6 of these had positive findings -trauma-related symptoms noted in victims including withdrawal, expressions of fear, anxiety, and	-elder sexual abuse often causes psychological consequences similar to post -traumatic stress as well as exacerbation of existing physical conditions -cognitive impairment and physical frailty creates challenges for incident reporting and forensic evidence-gathering -nursing home staff often insensitive to gravity of assaults on residents

Study	Study Characteristics†	Measures	Findings‡	Conclusions§
			refusal of personal care	

*Articles examining sexual aggression in the elderly have been included if they evaluate cases in long-term care settings and differentiate between resident and non-resident perpetrators. Articles addressing inappropriate sexual behavior or hypersexuality among nursing home patients without discussing impact on resident victims were excluded. Review articles or papers presenting only representative cases have been excluded. Articles are ordered by recency of publication date.

†For studies that exclusively examined incidents in nursing homes, we have indicated whether the study evaluated only sexually aggressive behavior of nursing home residents or whether other non-resident perpetrators (facility staff, family members, etc.) were included.

‡The findings and conclusions from each study described in this table are those most relevant for resident-to-resident sexual aggression.

APS=Adult Protective Services

Table 2

Behavioral modification strategies to manage resident-to-resident sexually aggressive behavior*†

Explaining that the behavior is inappropriate
Distraction
Sitting a male resident who is making improper sexual advances away from female residents in the dining room and at social gatherings
Pants that have no zipper or open in the back for male residents who expose and fondle themselves or masturbate in public
Activities that involve use of the hands such as folding towels
Avoidance of television or radio programs that provide excessive stimulation
Encouraging family members to hug, kiss, and hold the resident's hand while visiting
Live pets in the nursing home to increase resident sensory stimulation
Stuffed animals and baby dolls to distract resident and for grasping, fondling
Installing barricades with alarms to prevent wandering into the other residents' rooms

*Table adapted from and based on information presented in: Kamel HK. Sexuality in Aging: Focus on Institutionalized Elderly. Ann Long-Term Care 2001;9:64-72. Rosen T, Lachs MS, Bharucha AJ et al. Resident-to-resident aggression in longterm care facilities: Insights from focus groups of nursing home residents and staff. J Am Geriatr Soc 2008;56:1398-1408. Tune LE, Rosenberg J. Nonpharmacological treatment of inappropriate sexual behavior in dementia: the case of the pink panther. Am J Geriatr Psychiatry 2008;16:612-613. Ragno JG. Successful Redirection of the Sexually Disruptive Resident. In: Jackson VR, ed. The Abusive Elder: Service Considerations. New York: Haworth Press; 1996:37-41. Alagiakrishnan K, Lim D, Brahim A et al. Sexually inappropriate behaviour in demented elderly people. Postgrad Med J 2005;81:463-466.

†Current literature describing efficacy of these behavior modification interventions for hypersexual behavior is limited exclusively to case series, and no strong evidence from randomized controlled trials exists.

Table 3

Pharmacologic strategies * to manage resident-to-resident sexually aggressive behavior

Drug	Rationale
selective serotonin reuptake inhibitors (SSRIs)and tricyclic antidepressants (TCAs)	decreases libido and decreases the obsessive-compulsive behaviors that may be related to hypersexuality
medroxyprogesterone acetate (MPA) and cyproterone acetate (CPA) †	progestogens that reduce testicular secretion of testosterone
Luteinizing hormone releasing hormone (LHRH) antagonists and estrogens	reduce testicular secretion of testosterone
cimetidine	H2-receptor antagonist that has anti-androgen properties
anti-psychotics	dopamine blockade reduces aggressive behaviors in patients with dementing illness
pindolol	β-blocker that decreases adrenergic drive, reducing aggression, agitation, and hypersexuality
cholinesterase inhibitors	Decrease libido, helps cognitive and behavioral symptoms
gabapentin	An anti-epileptic that may increase synthesis of inhibitory neurotransmitter GABA, reducing agitation

* Readers should be cautioned that use of these interventions for hypersexual behavior is controversial, and current literature describing efficacy of these interventions for hypersexual behavior is limited exclusively to case series and case reports focusing only on male patients.[35, 100, 101] No strong evidence from randomized controlled trials exists.

† CPA is only currently available in the United States in low doses as a combination drug with ethinyl estradiol.