



An Elderly Lady with Recurrent Falls and Functional Decline: Approach to Elder Abuse

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Abstract

Elder abuse is an important and sensitive problem that is expected to increase with the rapidly ageing global population. The consequences of elder abuse include physical injuries, detrimental psychological consequences, social isolation as well as increased risk of hospitalization and death. Elder abuse is gaining recognition and awareness among the medical professionals and the policy makers. Currently, however, there is still scarcity of literature and gaps in the understanding and management of elder abuse. Increasing awareness on elder abuse among the healthcare professionals will help to identify the vulnerable elderly who are at risk and facilitate early referral to the appropriate services. Care plans must ensure first and foremost the older person's safety, so the vulnerable elderly should come to no further harm.

Keywords: Elder abuse; Neglect; Physical abuse; Sexual abuse; Psychological abuse

Definition

The World Health Organization-Center for Interdisciplinary Gerontology adopted the definition of elder abuse as a "single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person" [1].

Introduction

The global population of people aged 60 years and older is predicted to be more than doubled by year 2050 wherein it will be about 2 billion from 900 million in 2015 [2]. In the developing countries, a rapidly ageing landscape is taking place in the setting of urbanization, industrialization and lower birth rate due to increasing women in the work force amidst prevailing poverty [1]. Compared to the younger people, the elderly is more challenging to care for. The increased caregiver burden is due to multiple comorbidities and the presence of cognitive issues.

Traditionally, the women of the house are expected to double up as caregivers for the ageing parents, in addition to their many roles. The current sandwich generation of caregivers has the responsibilities of caring for their ageing parents in addition to providing for their own young families. The elderly living with caregivers with limited resources may not have their needs fully met and the stretched caregivers may end up abusing their loved ones under desperate living conditions.

Elder abuse has a negative impact on the health and well-being of the elderly. It is a violation of human rights and an important public health problem [1,2]. Elder abuse can occur in the form of physical, verbal, psychological/emotional, sexual and financial abuse as well as neglect. Elder abuse can either be intentional or unintentional [1].

In a meta-analysis, the overall prevalence of elder abuse in the community was 15.7% [3]. Of these, psychological (11.6%) and financial (6.8%) subtypes were the commonest, followed by neglect (4.2%), physical (2.6%) and sexual abuse (0.9%) [3]. Most of these studies were from high income countries and the figures may not reflect the prevalence in low- and middle-income countries [3]. Moreover, these figures may likely be an underestimate since only 1 in 24 cases of elder abuse was reported. Elder abuse is likely to be under-reported by the elderly for the shame involved [2].

The prevalence of elder abuse in the institutional settings appear to be higher than the community with 64.2% of the staff admitting to perpetration of elder abuse, which again, was an under-estimate [4]. The rate of self-reported abuse by the elderly in the institutional settings was higher compared to that in the community. Psychological abuse was reported by 33.4% of the institutionalized elderly compared to 11.6% in the community [3,4]. There are reports of physical

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Table 1: Risk factors for elder abuse [7,11,12].

Victim	Perpetrator	Social Environment
Functional dependence or disability Poor physical health Cognitive impairment Poor mental health Low income Age Financial dependence	Mental illness Substance abuse Abuser dependency Stopped work to care for elderly	Shared living condition Poor long-term relationship Poor social support

Table 2: Risk factors for elder abuse in the institutional settings [4,26-28].

Victim	Perpetrator	Institutional
Female gender	High levels of burnout	Smaller-sized residential facilities
Cognitive impairment	Increase occurrence of resident-related stressors	Staff shortage
Disability	Prior mistreatment from the resident elderly	Time pressure
Age >74 years old	Stressed about working with older people	High resident-to-nurse ratio
	Intention to leave the institution	

(14.1%) and financial abuse in the institutional setting (13.8%) [4]. Less commonly reported include neglect (11.6%) and sexual abuse (1.9%) among the older residents in the institutional setting [4].

In a 13-year follow up study by Lachs et al. [5] the victims of elder abuse had poorer survival (9%) than those who exhibited self-neglect (17%) or not referred to protective services at all (40%). In this study, self-neglect was defined as inability to provide himself/herself with the services needed to maintain his/her mental and physical health [5].

According to the World Health Organization, if the proportion of elder abuse victims remains the same as the currently reported figures, there will be approximately 320 million elder abuse victims by 2050 [2]. It is therefore important for the healthcare professionals to recognize the telltale signs of elder abuse and intervene as early as possible to prevent harm. This paper illustrates a case where elder abuse was considered but difficult to differentiate from an organic problem.

Case Presentation

An elderly lady presented in the Emergency Department for generalized weakness and poor appetite for a week. She lived with her son and was looked after by a foreign domestic worker. On the day of admission, she had difficulty passing urine and was agitated. Her baseline function was home ambulatory and was independent in her activities of daily living.

She had vascular dementia with behavioral symptoms where she was reported to be shouting at her son, frequently called for toileting, refused food and had sleep wake reversal. The behavioral symptoms had worsened in the recent months, resulting in caregiver stress. Past medical history included diabetes, hypertension, hypercholesterolemia, hypothyroidism, osteoporosis and old stroke with good recovery. She was not on any antiplatelet or psychotropic medications. She was brought to see a general practitioner for new onset of right arm weakness eight months prior. However, her son declined hospital admission to work up for acute stroke, or empirical treatment with anti-platelet.

Three weeks prior to admission, patient complained of back and right hip pain. A video surveillance in the house showed she had a fall but unable to ascertain if she hit her head since the video captured only her legs. She was able to get up herself and was ambulating for a few days after the fall.

In the Emergency Department, she was confused, agitated and shouting. The only significant finding was right upper limb weakness with elbow contracture. She had right hip pain on internal rotation but no limb shortening. She had a distended bladder and full rectum. An indwelling catheter was inserted to drain the urine.

CT scan of the brain showed a large acute or chronic left subdural hematoma measuring 1.9 cm in maximum thickness with mild contralateral midline shift by 0.3 cm and possible early uncal herniation. There was a 1 cm subdural hygroma on the right and was slightly bigger compared to a prior CT brain in 2012. Old lacunar infarcts were seen in the left corona radiata and bilateral striatocapsular regions. Her son opted for conservative management and her neurological status remained stable.

Pelvis and right hip X-rays were done which showed an old right intertrochanteric fracture of the femur. The fracture was managed conservatively and pain control was optimized. Her BMI was 14 kg/m² with very poor oral intake. A dietician was consulted and oral nutritional supplement was initiated. She was seen by physiotherapists and occupational therapists in view of her functional decline. Initially, she refused to ambulate in the ward because of pain.

The team wondered if there was possible neglect at home, in view of the delayed presentation following a fall 3 weeks prior which resulted in right hip fracture. She was in significant pain and had been immobile since her fall. She was also frail and underweight. The caregiver was stressed as she had no prior knowledge on dementia and could not cope with managing the behavioral and sleep problems at home. She was discharged well after a period of rehabilitation, with medications to manage her low mood and poor sleep.

Discussion

Elder abuse or elder mistreatment was scientifically defined by the U.S. National Academy of Sciences as “(a) intentional actions that cause harm or create a serious risk of harm (whether or not harm is intended) to a vulnerable elder by a caregiver or other person who stands in a trust relationship to the elder or (b) failure by a caregiver to satisfy the elder’s basic needs or to protect the elder from harm” [6].

Two major points are emphasized in this definition: The older person has sustained an injury, suffered from deprivation or was exposed to unnecessary danger and that the other person (or

Table 3: Interventions for elder abuse [7].

Interventions	Example Approaches
Caregiver interventions	Housekeeping services
	Meal preparation
	Respite care
	Education
	Support groups
Money management programs	Day care
	Help in daily money management like paying bills and home care personnel
	Assistance in making deposits
Helplines	Aiding in negotiations with creditors
	Providing helplines with the advantage of anonymity
Emergency shelters	Providing safe and medically-appropriate shelters while awaiting permanent placement to a nursing home or Establishment of a safety plan at home
Multidisciplinary teams	Criminal justice
	Health and mental health care
	Financial services
	Victim services
	Adult protective services
	Long-term care
	proxy decision-making civil legal services

persons) in a relationship of trust was responsible for causing or fails in preventing the harm from happening [7]. The definition excludes cases of self-neglect and those involving victimization of elders by strangers [6]. It is important to note; however, that there are no universally accepted definitions for elder abuse since the various definitions are more particular with regards to the conditions present in specific locations, specifically defined for research purposes or imprecisely defined [8].

There are 5 types of elder abuse:

1) Physical abuse: The intentional use of physical force resulting in injury, distress, functional impairment or death.

2) Sexual abuse: Forced or unwanted sexual interaction of any kind with an older adult whether it involves touching or non-touching acts.

3) Emotional or psychological abuse: Verbal or nonverbal behavior which caused emotional pain or injury (examples are humiliation, threats, isolating from family or friends, controlling activities like limiting access to the phone, money or other resources).

4) Neglect: Failure to protect the elder from harm or the failure to meet essential needs (i.e. medical care, nutrition, hygiene, shelter, basic activities of daily living) such that the health and safety of the elder is compromised.

5) Financial abuse or exploitation: Illegal, unauthorized or improper uses of the elder's resources for the benefit of another person other than for the elder. This includes depriving the elder of rightful access or use of personal resources and benefits.

Risk factors for elder abuse

Systematic reviews and meta-analyses were performed on the different studies regarding the risk factors for elder abuse. However, evidence for certain risk factors cannot be confidently established

because of several factors, such as the lack of a universally accepted definition for elder abuse, use of standardized and non-standardized measures of abuse which led to a large proportion of variance in the analyses of data [3,8]. Moreover, different countries and cultures have their unique social norms which influenced family dynamics and expectations. These factors may undermine reporting of data [8].

Pillemer, et al. [7] reviewed the evidence for the different risk factors for elder abuse and categorized them based on Bonnie and Wallace's ecological model [9]. This ecological model highlights that interaction between the victim and the perpetrator is the center of the issue. However, there are contextual risk factors and individuals involved which contribute to a different generic level of risks [9]. These contextual risk factors include the location (i.e. at home, nursing home, shelter), social relationship (i.e. spousal, adult child caregiver, nurse) and the sociocultural background (i.e. race, ethnicity, urban/rural location) of the victim [9]. Table 1 shows the different risk factors for elder abuse at the level of the victim, the perpetrator and the social environment that surrounds them [7,10,11].

In most cases of elder abuse, there are multiple risk factors involved. An older adult living with disabilities and in poor health is dependent on their caregivers for their livelihood; hence, are less able to defend themselves [12]. The Persons with Dementia (PWD) are at higher risk of abuse due to disruptive and aggressive behavior towards their caregivers [12]. Stressed caregivers of PWD reported that behavioral symptoms and communication barriers are the main determinants for abuse, rather than physical dependency, cognitive impairment and financial problems.

Gender as a risk factor is not fully established. As cited by Wallace et al. [6] the tendency of women to sustain more serious abuse and to suffer more severe physical and emotional harm from the mistreatment may explain their greater representation in adult protective services [13]. In a nine-year observational cohort study

by Lachs et al. [11] gender did not confer additional risk. In a more recent meta-analysis by Yon et al. there was no gender difference among victims of abuse but these were based on scientific literature from high income countries and the rates may be different if studies are available from low- and middle-income countries [3].

Lachs et al. [11] observed that advanced age was a risk factor of elder abuse and the victims had higher prevalence of impairment in their activities of daily living. On the other hand, there are studies showing that younger age is associated with greater risk of elder abuse [7,14-16]. Representation bias may influence this observation since older adults with cognitive impairment were excluded from studies [16]. Moreover, Acierno et al. [15] noted that older adults were less forthcoming in reporting mistreatment compared to those in their late 50s or 60s who included routine arguments with their family in their survey response. More studies are needed to evaluate the impact of age on the elderly's risk for abuse.

Wallace et al. [6] and Pillimer et al. [7] cited several studies wherein the perpetrator was financially dependent on the victim. For the perpetrators, mistreatment is likely when they fail to obtain resources from the victim under their care [12]. A shared living condition provides more opportunities for conflict and tension to build [12]. Homer noted that abusive carers often lived with their dependant elderly, consumed alcohol, had poor long-term relationship with the victim, scored higher in the depression subscales and were more likely to have stopped work to care for the elderly [10].

There are limited studies on race as a risk factor for elder abuse. Being non-white among Caucasians is associated with a higher risk [6,7,11]. In a Canadian study cited by Pillemer, et al. [7] aboriginal adults may also have higher risk of physical and sexual abuse [17].

Elder abuse in institution setting

In a meta-analysis by Yon et al. [4] several risk factors for elder abuse were consistently identified among residents in institutional settings. Female gender, presence of cognitive impairment, disability and age >74 years old were the main risk factors for elder abuse in institutional settings [4].

Results from the national survey on staff-resident interactions and conflict in the residential care settings in Ireland in 2012 showed the strongest predictors of neglect and abuse towards older people by the staff were high levels of burnout, frequency of occurrence of resident-related stressors, staff experience of mistreatment by residents and prior experiences of psychological distress [18]. Majority of the staff had experienced physical and psychological mistreatment from the residents with a quarter of them having experienced some form of inappropriate sexual behavior by a resident [18]. The strongest predictors for staff who perpetrate physical abuse were those working in smaller-sized residential facilities, staff who felt stressed working with older people and those with intention to leave the institution they were employed [18]. Drennan et al. [18] cited studies reporting staff shortages, time pressure and the high ratio of residents to registered nurses were correlated to elder abuse [19,20]. Table 2 summarizes these risk factors.

Aetiology of elder abuse

There are numerous theories on elder abuse which further illustrate how these risk factors are interrelated. Three of these are detailed in Hazard's Geriatric Medicine and Gerontology due to their clinical relevance when considering the types of interventions in confirmed cases of elder abuse [12].

The dependency theory of mistreatment postulates that abuse occurs among victims with cognitive or functional disability that results in impairment in activities of daily living and enormous care needs [12]. Closely related to this dependency theory of mistreatment is the situational theory where an overburdened caregiver, who cannot cope with the care demands, becomes abusive to the vulnerable elderly [21].

The transgenerational violence theory of mistreatment holds that family violence is a learned behavior wherein adults who were abused as children may in future, abuse their own children, spouse or parents [12]. Abused children may perceive violence as an acceptable response to stress; hence, may end up being abusive towards their parents. Moreover, the child or spouse who suffered abuse may continue this cycle of violence when they become caregivers of an abusive parent or spouse [21].

In the psychopathology of the abuse theory, the abuser has mental health problems which put the elder at risk for mistreatment [12,21]. Psychiatric disorders known to predispose to abusive behaviors include poorly treated schizophrenia, personality disorders, alcoholism and other substance abuse [12].

The case presented has functional dependency and dementia which are both risk factors for elder abuse. There was no history or current knowledge of family discord. The caregiver was stressed due to poor sleep, fall risk, behavioral symptoms (agitation and aggression) and poor oral intake which fit in the dependency theory of mistreatment and situational theory. Due to her increased tendency to fall and history of multiple falls in the past, the family may have "accepted" her falls as common and expected events. This may explain why they did not seek medical consultation until the patient became immobile and agitated from pain due to hip fracture. Moreover, her food refusal was aggravated further by her pain and constipation.

Clinical Presentation of Elder Abuse

Seniors who present in the emergency room with injuries from mistreatment can be quite challenging due to the hurried work environment [12]. One common example in the emergency department is an unaccompanied senior with cognitive impairment, leaving the physician to rely on physical findings and investigation results to differentiate between organic causes *vs.* mistreatment [12,22]. As cited by Rosen et al. lack of formal training in identifying signs, uncertainty on the proper steps to take after identification of mistreatment and doubts in the effectiveness of the interventions also contribute to the challenge in the Emergency Department [22,23]. Another barrier to investigation is the presence of the suspected abuser with the victim during the consultation. It may be difficult to ask direct questions while the perpetrator is present. Under the circumstances, the perpetrator or the victim may not tell the truth while the other party is present. Interviews therefore should be conducted separately and discreetly [12]. The patient should be interviewed separately and should be asked candidly and calmly about the nature of any unexplained injuries or findings [12]. Sometimes, elder abuse victims feel more comfortable reporting to support staff rather than to doctors as they may perceive fewer consequences from such conversations [22].

Obvious injuries like fractures, burns, contusions and lacerations with a reliable history can easily lead to a diagnosis of elder abuse [12]. Subtle manifestations that mimic chronic diseases pose a major challenge in making a diagnosis [12]. A senior who is neglected

may have numerous visits to the hospital for decompensation of comorbidities and mistreatment may not be suspected. Seniors on anticoagulants plus mobility issues may have multiple bruises [24]. As opposed to the perception that old bruise appears yellow, a study showed the initial color and the change over time are less predictable since the initial bruise color for some senior is yellow [24]. As cited by Rosen et al. [22] bruising patterns suggestive of elder abuse are often more than 5 cm in size usually over the face, lateral (radial) aspect of the right arm or posterior torso [25].

Injuries inconsistent with the reported mechanism, presence of old and new injuries and uncommon patterns of non-accidental nature are all suggestive of abuse [22]. Nonetheless, there is no known pattern of injuries which is equivalent to the Caffey-Kempe (battered baby) syndrome [26]. A literature review by Murphy et al. [26] showed that two-thirds of injuries in elder abuse occurred in the upper extremity and maxillofacial region. However, radiologists need validation of the specificity of these findings before they can confidently raise the suspicion. Currently, there are no reliable diagnostic tests which can distinguish an accidental injury from non-accidental ones. Therefore, the emphasis is on identification of risk factors related to the victim, perpetrator and the circumstances [26].

The case presented had an old fracture of the femur and subdural hematoma likely due to a recent fall. The patient was in pain, immobile, showed worsening of behavior and food refusal. She was undernourished, with behavioral symptoms of dementia and was only brought to the hospital weeks after the problems started. The attending suspected a possibility of neglect. Failure to seek medical attention early and failure to provide nutrition are both considered as neglect. Clinically, there were several contributing factors (i.e. constipation, pain, immobility, delirium) to under nutrition. The attending felt that there may be a wide knowledge gap in the understanding of the patient's illness. This highlights the multiple layers of challenges when investigating a case for elder abuse.

Assessment

There are several screening tools for early identification and evaluation of elder abuse; however, these may not be applicable in all settings [12]. The World Health Organization adopted the Elder Abuse Suspicion Index (EASI) which was developed and tested in Canada [1]. The EASI consists of copyrighted, short and direct questions that takes 2 min and can be readily used on cognitively intact seniors [1].

A heightened awareness when considering the diagnosis is highly emphasized [12]. Poor hygiene, caustic interaction between parties, missed medical appointments or failure to adhere with treatment are significant signs [12]. Nurses can also look for bruises while assisting with activities of daily living [22].

The interview with the alleged perpetrator should be done in private and, if possible, by providers who are skilled in elder abuse [12]. Alleged perpetrators should be approached with an empathetic and nonjudgmental manner since this may provide them an opportunity to express their source of stress and actions [12]. Talking to the alleged perpetrator can be quite risky and there is a possibility that once confronted with allegations of elder abuse the elderly may be sequestered and all access to the critically needed medical and social services might be severed [12].

The clinical identification of elder abuse is challenging. Many chronic diseases have clinical manifestations that mimic abuse and clinicians may ascribe this to the illness rather than mistreatment [12].

Fractures may be a result of osteoporosis and/or abuse [12]. Malnutrition may be due to chronic illnesses and/or neglect. Frequent decompensation of chronic illnesses (i.e. heart failure, poorly controlled blood pressure, chronic obstructive lung disease exacerbations) may be due to the progression of the diseases or neglect by not following the care plan that was advised. These examples emphasized the threshold for suspicion of elder abuse should be low especially when risk factors are present.

Assessment of this case showed that the family was used to the behavioral symptoms and tried to cope with her care without having to bring her to the hospital up to a point wherein they were not able to manage her at home. Close observation of interactions between the patient and her caregiver during her hospital stay did not appear to be suspicious for elder abuse. It was obvious; however, that her family and caregivers were poorly informed of her care needs especially with her dementia symptoms, progression, behavioral symptoms and fall risk. The negligence in care was likely unintentional, due to the gaps in the family's and the caregiver's knowledge.

Management

In view of the heterogeneity of elder abuse, a sensible approach would be a multipronged strategy used to manage the other geriatric syndromes with multi factorial etiologies [12]. Unfortunately, there are only a handful of intervention studies and the results of most of these efforts were negative or equivocal [7].

The most important step is to ensure the safety of the victim; therefore, the immediate threat of danger should be evaluated extensively [12]. A safety plan on how to handle the situation before, during and after an abusive episode is crucial [12]. The plan includes knowledge on the available community and social resources whenever help is needed. It also includes self-protective actions like calling for help, changing door locks, getting protection order and having essential items packed and ready in case there is a need to leave quickly [12]. This is especially important for seniors with decision-making capacity and still chooses to remain in an abusive environment.

The physician's role is to emphasize to the patient the tendency of family violence to escalate, review safety plans and resources available [12]. Assurance that the physician remains an important and available support and resource must be made known [12]. For the seniors who lack capacity, this safety plan has limited utility [12]. The physician will have to provide objective evidence that the patient lacks decision-making capacity and collaborate with adult protective service agencies and social service programs to arrange for a guardian [12].

Pillemer et al. [7] identified five interventions based on multiple case studies or program which reported benefits. These interventions are summarized in Table 3. Relieving the burden of caregiving may help prevent further abuse [7,27,28]. Seniors at high risk of financial exploitation may benefit from a program that assists in monitoring their financial activities. There are help lines which allow a person to seek advice and assistance with the advantage of anonymity given that many elders may be ashamed of potentially falling into a scam [7]. Members of Multidisciplinary Teams (MDT) detailed in Table 3 can support the seniors *via* the multiple systems involved; however, MDTs are more applicable in higher-income nations since the services are available [7]. The establishment of basic elder abuse services is of higher priority for lower-income nations [7].

Elder abuse increases the risk of morbidity and mortality. In a study on elder abuse and mortality risk in a community-dwelling population, the mortality for abuse victim is 13.49 deaths per 100 person-years vs. 5.91 among those who did not report abuse [29]. A prospective population-based study in Chicago, Illinois, showed that the annual rate of hospitalization is also higher for confirmed victims of abuse at a mean of 2.00 (95% CI, 1.24 to 2.75) compared to 0.62 (95% CI, 0.59 to 0.66) for elderly without history of abuse [30]. Caregiver neglect is associated with the highest rate of hospitalization at 2.77 (95% CI, 1.58 to 3.97) vs. the other subtypes of abuse; psychological abuse 1.80 (95% CI, 0.98 to 2.63), physical abuse 1.91 (95% CI, 0.47 to 3.35) and financial exploitation 1.56 (95% CI, 0.90 to 2.21) [30]. Interestingly, the association of elder abuse and increased hospitalization did not differ with sociodemographic, socioeconomic, health-related or psychosocial factors [30].

This case was transferred to a step-down care facility for continuation of pain management, nutritional optimization, caregiver training and rehabilitation. She was subsequently referred to a home-based medical team at discharge. The home-based team did not report any suspicious features of abuse at home. Patient passed away peacefully at home 2 months after her admission due to immobility-associated complications.

Conclusion

Despite the increasing recognition on the importance of elder abuse and the declaration by WHO that this public health issue is a human right violation, there is scarcity of literature on elder abuse. This case had several factors and signs that raise the alarm for neglect; at the same time there were elements that blur the line. Further communication with the family showed a knowledge gap on the patient's care needs; and this is a patient with high caregiver burden. This case emphasizes the complexity of elder abuse and the need to gather information from different sources in order to arrive at the diagnosis. Physicians and other healthcare workers must always be vigilant to pick up clues suggestive of elder abuse. Moreover, patients with risk factors for elder abuse should be properly assessed and referred to relevant services to support them even if elder abuse was not confirmed. With the expected rise in the proportions of elderly in the global population, more research is needed to address this issue with regards to its prevalence, risk factors, management strategies, morbidity and mortality.

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