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# Older Adult Homicide: Investigating Case, Victim and Perpetrator Characteristics in a National Sample from England and Wales

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### **Abstract**

Older adult homicide (OAH) is the most severe, yet understudied, form of older adult abuse. This study examined the case, victim and perpetrator characteristics of OAH. A secondary analysis of national data from England and Wales (2008–2019) was conducted where cases of non-stranger OAH (victims aged sixty years and over) were compared to adult homicide (victims aged eighteen to fifty-nine years) at the case, victim (n=3,274) and perpetrator (n=2,763) levels. Logistic regression models used to identify characteristics that were OAH risk factors, showed only a slight increase in predictive power but high accuracy in classifying adult homicide cases. Nevertheless, some risk factors known to be predictors of older adult abuse were significant predictors of OAH (e.g. living with the perpetrator, the perpetrator's mental state). Implications for research, policy and practice are discussed.

**Keywords:** elder homicide, elder abuse, homicide perpetrator, homicide victim, national sample older adult abuse, older adult homicide

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The most severe outcome of interpersonal violence is homicide. Whilst there is a plethora of research on homicide in the general adult population and of children, scholarship on homicide as an outcome of violence against older adults (older adult homicide, OAH) is limited, but of growing interest (Addington, 2022). An increase in scholarship has emerged from both Global North and South countries: see, for example, Shawon et al.'s (2021) analysis of OAH in the USA; Nomura et al. (2016) in Japan; and Buthelezi et al. (2017) in South Africa. Academic interest may reflect the wider recognition that older adults are a rapidly growing subset of populations across the globe, set to double from 1 billion in 2019 to 2.1 billion in 2050, presenting substantial future social, health and economic concerns (WHO, 2022). In this article, we present the findings from a study of OAH data collected by the Home Office, a ministerial department of the UK Government, after first reviewing the OAH literature.

### Homicide of older adults

In a systematic review of thirty-three international studies, Rogers and Storey (2019) found that, overall, more OAH takes place within the home resulting in female fatalities and these killings are more often perpetrated by younger adult male family members. Similarly, in her comparative case analysis of domestic homicide cases (n=221) in the UK, Bows (2019) found that most killings were gender specific as 67 per cent of victims were female and that 87 per cent of the homicides took place in the victim's home. In 41 per cent of cases, perpetrators were male family members and a sharp instrument or knife was the method of killing. A recent US-based study by Allen and colleagues (2020) examined thirty-four years of FBI Supplementary Homicide Reports to understand homicide by victim and perpetrator age, sex and relationship, finding that most older homicide victims were women in cases of domestic homicide who were killed by a male partner. OAH research illuminates the diversity of victim-perpetrator relationships including when it is enacted within an intimate partnership, known as domestic homicide (Benbow et al., 2018); parricide, the killing of a parent by their child (Bojanić et al., 2020); and grannicide, the murder of a grandparent by their grandchild (Adinkrah, 2020). There is less empirical research on OAH in cases when the perpetrator is a stranger or acquaintance.

Few studies have examined homicide across adulthood and by comparing across age groups (i.e., comparing adults to older adults). In their systematic review, Rogers and Storey (2019) found that when studies compared older and younger age groups, overall, female victimisation was more prevalent in older cohorts and male victimisation higher in younger cohorts (Abrams et al., 2007). Studies also show that younger

males are more likely to be killed by other young males, commonly strangers, but across all stages of adulthood, it is rare that females are killed by strangers or acquaintances; women are more likely to be killed through family violence by partners or other family members within the home (Allen et al., 2020). When older males are killed within the home. it is also a result of family violence although mostly by adult offspring, and rarely by partners (Allen et al., 2020). In their systematic review and meta-analysis, Kennedy and colleagues (2023) found that many OAHs are committed by family members, yet, in contrast they found that offenders were strangers for almost a quarter, which is almost twice the frequency for younger adults. Other age related differences are that alcohol and/or drug-related homicide is more common amongst vounger adults (Krienert and Walsh, 2010) and the prevalence of domestic abuse is lower for older adults than for adults (Burgess et al., 2005). Thus, studies comparing across age groups suggest that there are significant differences between victims and perpetrators by gender, age, relationship and context.

Despite this emerging body of research, since homicide victimisation more often affects the younger population (Allen *et al.*, 2020; Kennedy *et al.*, 2023), the characteristics and circumstances of OAH remain under-researched (Shawon *et al.*, 2021; Addington, 2022). Most empirical studies on OAH have been conducted in the USA (Caman *et al.*, 2017) which means that OAH is not well understood in different sociocultural, political and geographical contexts, including in the UK. As a result, there are theoretical and empirical gaps in current knowledge and the dearth of research is significant due to ageing populations and the recognition of elder abuse and family violence as relatively neglected public health and social care problems (Kennedy *et al.*, 2023).

Further research on OAH is, therefore, necessary to strengthen the evidence-base that underpins prevention strategies and case management (Rogers and Storey, 2019; Addington, 2022). As indicated by extant literature, this is especially critical in cases where the victim and perpetrator are known to one another (i.e., non-strangers) because there should be identifiable perpetrator risk and victim vulnerability factors (i.e., predictors) as well as interaction between the parties prior to the homicide that can inform assessment, intervention and risk management. To inform assessment and intervention the theoretical model of violence risk prevention, the Risk Need Responsivity Model (Andrews et al., 2006), which underlies the Structured Professional Judgement approach to violence risk assessment (Hart, 2001), holds that intervention should be commiserate to risk level and focused on risk factors that are changeable (i.e., dynamic rather than static) and causally related to the offending behaviour. Support for this model, in the form of reductions in violent outcomes, has been found for related forms of abuse such as intimate partner violence (Belfrage et al., 2012). However, Rogers and Storey

(2019) found a distinct lack of identification and analysis of dynamic risk factors for OAH compared to older adult abuse.

The nascent literature on risk factors for OAH is therefore insufficient to support prevention efforts. Thus, to inform development in case management, further research should be undertaken along with rigorous examination of large representative datasets to identify case, victim and perpetrator characteristics that can guide prevention and practice. Addington (2022) seconds this call, adding the need for a greater understanding of the crime and population, including both victim and perpetrator characteristics utilising recent crime data (i.e., from at least the past twenty-five years).

### Current study

This study begins to fill the gaps identified by this literature overview and Addington (2022) by increasing knowledge of OAH characteristics, aiming to provide information that will indicate whether we need a different lens to prevent OAH and if so, what this might be. The largest repository of homicide data in the UK, and that which informs government policy, is the dataset maintained by the UK Home Office. The present study is a secondary analysis of this national dataset because of its complete and representative nature and because if the existing variables included in the dataset are predictive of OAH they could be used to inform prevention in practice.

The data examined include all homicides committed in England and Wales from 2008 to 2019 where the victim and perpetrator were known to each other (i.e., non-stranger). This sample has not previously been examined in this way in the research literature and was chosen because it is generally understood in the field of older adult abuse that stranger violence and violence by perpetrators known to the victim differ with respect to risk factors and the appropriate methods of case intervention (Storey, 2020). Indeed, the WHO (2022) definition of older adult abuse requires that a relationship exist between the perpetrator and victim. Thus, we anticipate the need to make a similar distinction based on relationship type for OAH.

To identify characteristics most relevant to OAH, a comparative cross-sectional design is used that compares cases with victims aged sixty years and older (in line with the WHO definition) (i.e., OAH) to those with victims aged eighteen to fifty-nine years (i.e., adult homicide or AH). The following research questions (RQs) guided the study in identifying characteristics and/or predictors of OAH:

1. What are the characteristics of OAH cases compared to cases of AH?

- Based on the prior literature, we hypothesise that OAH cases will occur more often in home/residential settings than AHs and AHs will occur more often in public spaces than OAHs. Further, there will be fewer drug-related motives for homicide in OAH cases than in AH cases.
- 2. What characterises OAH victims compared to AH victims?
  - We predict that in line with the prior literature OAH victims are more likely to be female and AH victims more likely to be male. OAH victims will more frequently be killed by intimate partners and family than AH victims who will be more frequently killed by friends and acquaintances. In addition, we predict that the prevalence of previous domestic (aka family) violence will be lower amongst OAs than adults. However, this difference may be related to reduced reporting in the former group rather than actual violence which took place.
- 3. What characterises OAH perpetrators compared to AH perpetrators?
  - No hypotheses are posited regarding the characteristics of OAH perpetrators compared to AH perpetrators, due to the lack of previous research.

### Method

### Overview

Data collected by the Home Office on all AHs in England and Wales from 1 April 2008 to 31 March 2019 were requested. The sample obtained is therefore representative of the diversity of these regions given its national nature. An information sharing agreement was implemented with the Home Office and anonymised data (excluding names, dates of birth and addresses) was provided. Perpetrator information was only provided for those individuals who were convicted of homicide, died or committed suicide, as per Home Office policy. Ethical permission was obtained from the University of Kent (Ethics ID: 202015889252836496).

# Data and sample

Based on the research questions, previous research and guidance from the Home Office, exclusion criteria were applied to the original dataset (n=8,056). Two samples were created based on the exclusion criteria so

that analyses could be run at the case, individual victim and individual perpetrator levels.

All cases not currently recorded as homicides (e.g., where homicide was the original charge, but the court ruling was self-defence) or where there was an acquittal were excluded (n=1,134). Entries for nonprimary perpetrators were removed (n=2.374), leaving one perpetrator per entry. Primary perpetrator is defined by the Home Office as the perpetrator who received the longest sentence or most serious conviction, or in the absence of a court outcome, is the person considered by police to be the most involved in the homicide. This decision was taken to identify risk factors associated with the individual most responsible for the homicide and without whom it may not have taken place. Next, perpetrators not known to the victim (i.e., strangers, corporations) were removed (n = 1.236). Cases with multiple victims whose ages spanned sixty and over and eighteen to fifty-nine years were excluded since they could not be classified as OAH or AH exclusively (n=41). This resulted in a final case and victim sample of 3,274 entries corresponding to unique victims.

Finally, following from the case and victim sample of 3,274 entries, cases with multiple victims, and thus multiple entries, were removed so that only one perpetrator entry for each case was retained (n=46). After entries with no perpetrator information (i.e., due to lack of conviction or death) were excluded (n=458), this left a final perpetrator sample of 2,770 entries corresponding to unique primary perpetrators.

### Variables and variable selection

Variables. The variables available for study are those routinely collected by the Home Office. The Home Office provides the Senior Investigating Officer (i.e., the homicide detective with the greatest knowledge of the case) with a form to be filled out based on a mixture of records, witnesses and evidence. Instructions are provided to the officers regarding the completion of the form. Officers then use their professional judgement to determine if the variables on the form are present, absent or unknown in the case. Case, victim and perpetrator variables are outlined in Tables 1, 2 and 4, respectively, and provide the level of operationalisation provided by the Home Office. For the present study, the twenty-two victim–perpetrator relationship types outlined by the Home Office were classified into (i) current and ex-partners, (ii) parent or step-parent, (iii) acquaintance (e.g., friend, social, business or criminal associate), (iv) other relative (e.g., brother/sister), and (v) other (e.g., carer, lover's spouse).

**Variable selection.** Variables analysed were selected based on a review of past literature on OAH and older adult abuse (i.e., studies outlined in

Table 1 Frequency and percentage of case characteristics across victim age group.

Variable	OAH case (age 60 and older) $(n = 509)$ $n(\%)$	AH case (age 18–59 years) (n = 2,765) n (%)		
Method of homicide used				
Sharp instrument	173(34%)	1403(50.7%)		
Blunt instrument	90(17.7%)	267(9.7%)		
Hitting, kicking etc.	57(11.2%)	376(13.6%)		
Suffocation, asphyxiation or smothering	43(8.4%)	48(1.7%)		
Manual strangulation	33(6.5%)	148(5.4%)		
Strangulation with liga- ture etc.	26(5.1%)	75(2.7%)		
Explosion	17(3.3%)	8(0.3%)		
Shooting (firearm or other)	16(3.1%)	130(4.7%)		
Causing to fall against a hard surface	15(2.9%)	62(2.2%)		
Negligence or neglect	11(2.2%)	16(0.6%)		
Arson	7(1.4%)	47(1.7%)		
Other	7(1.4%)	20(0.7%)		
Other poisoning (drugs etc.)	6(1.2%)	41(1.5%)		
Drowning	5(1%)	8(0.3%)		
Exhaust fumes	5(1%)	6(0.2%)		
Burning, scalding	2(0.4%)	5(0.2%)		
Struck by motor vehicle	1(0.2%)	32(1.2%)		
Unknown	12(2.4%)	73(2.6%)		
Offence location				
Residential	459(90.2%)	1868(67.6%)		
Public Place	37(7.3%)	784(28.4%)		
Other	10(2.0%)	82(3.0%)		
Unknown	3(0.6%)	31(1.1%)		
Circumstance of offence				
Other known circumstances	175(34.4%)	371(13.4%)		
Domestic dispute	138(27.1%)	952(34.4%)		
Fights, brawls etc.	55(10.8%)	700(25.3%)		
In the course of other crime	35(6.9%)	128(4.6%)		
Reckless act	17(3.3%)	92(3.3%)		
Long running disputes	15(2.9%)	180(6.5%)		
Sexual	9(1.8%)	45(1.6%)		
Unknown	65(12.8%)	297(10.7%)		
Motive				
Drug related	19(3.7%)	313(11.3%)		
Provoked by victim violence (not rising to level of self-defense)	15(2.9%)	289(10.5%)		
Sexual motive	13(2.6%)	73(2.6%)		
Linked to prior domestic vi-	13(2.6%)	121(4.4%)		
olence towards perpetrator	13(2.070)	121(4.470)		
Homophobic motive	6(1.2%)	28(1.0%)		
Religious motive	2(0.4%)	2(0.1%)		
Racial motive	1(0.2%)	9(0.3%)		
Gang related	0	100(3.6%)		
Contract killing	0	7(0.3%)		
None of the above	447(87.8%)	1974(71.4%)		
None of the above	447(67.6%)	1974(71.4%)		

Note. Multiple motives were present in 6 (1.2%) OAH cases and 135 (5.1%) AH cases.

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Table 2 Frequency and percentage of victim characteristics across victim age group.

Variable	OAH case (age 60 and older) $(n = 509)$ $n(\%)$	AH case (age 18–59 years) (n = 2,765) n(%)		
Victim ethnicity				
White	438(86.1%)	2089(75.6%)		
Asian	29(5.7%)	236(8.5%)		
Black	20(3.9%)	303(11%)		
Other	7(1.4%)	100(3.6%)		
Unknown	15(2.9%)	37(1.3%)		
Victim drink drug level				
(at offence)				
Been drinking alcohol	70(13.8%)	805(29.1%)		
Taken an illicit drug	1(0.2%)	123(4.4%)		
Both drinking alcohol and	4(0.8%)	217(7.8%)		
taking an illicit drug				
None of the above	434(85.3%)	1620(58.6%)		
Victim illegal drug user				
Yes	16(3.1%)	787(28.5%)		
No	456(89.6%)	1720(62.2%)		
Unknown	37(7.3%)	258(9.3%)		
Predictors				
Victim gender				
Female*	276(54.2%)	1038(37.5%)		
Male	233(45.8%)	1727(62.5%)		
Victim relationship to				
perpetrator				
Current and ex-partners	148(29.1%)	942(34.1%)		
Acquaintance	145(28.5%)	1490(53.9%)		
Parent or step-parent*	135(26.5%)	84(3.0%)		
Other relative	49(9.6%)	145(5.2%)		
Other	32(6.3%)	104(3.8%)		
Victim missing person				
Yes*	18(3.5%)	136(4.9%)		
No	487(95.7%)	2599(94%)		
Unknown	4(0.8%)	30(1.1%)		
Victim living with perpetrator	224(22.54)	645(00.00)		
Yes*	201(39.5%)	645(23.3%)		
No	285(56%)	1991(72%)		
Unknown	23(4.5%)	129(4.7%)		
Prior abuse by the				
perpetrator	E4/400()	454/45 70/)		
Yes*	51(10%)	461(16.7%)		
No	430(84.5%)	2181(78.9%)		
Unknown	28(5.5%)	123(4.4%)		

Note. \*Denotes reference group for the logistic regression analysis.

the literature review and Storey, 2020 which reviewed 198 studies on risk factors for older adult abuse), the research questions, and the aim of the study which is to identify risk factors that could inform the intervention and prevention of OAH. The latter includes risk factors from the older adult abuse literature that are potential management or treatment

Variable	В	SE	Wald	df	р	Odds ratio	95% CI for odds ratio	
							Lower	Upper
Victim gender Victim relationship to perpetrator	0.48	0.14	11.43	1	0.001	1.62	1.23	2.14
Current and ex-partners	-2.42		179.46	1	0.000	0.22	0.06	0.13
Acquaintance Other relative	-2.54 -1.53		175.13 44.61	1	0.000	0.08 0.21	0.05 0.14	0.12 0.34
Other	-1.49	0.27	30.21	1	0.000	0.23	0.13	0.38
Victim missing person	-0.35	0.28	1.56	1	0.212	0.71	0.41	1.22
Victim living with perpetrator	0.46	0.13	13.12	1	0.000	1.59	1.24	2.04
Prior abuse by the perpetrator	-0.85	0.18	23.19	1	0.000	0.43	0.30	0.60
Constant	0.16	0.18	0.73	1	0.392	1.17		

Table 3 Logistic regression predicting older adult homicide vs adult homicide based on victim characteristics.

targets due to their dynamic or changeable nature (e.g., mental health problems, employment status) but that have not been examined as predictors of homicide.

### Analysis plan

To answer research question one, descriptive values for variables describing case characteristics were calculated. The variables included and displayed in Table 1 were selected to represent the sample and allow comparisons to previous literature. Similarly, to answer research questions two and three descriptive statistics are presented to describe each sample (see variables in Tables 2 and 4, respectively). To identify risk factors that predicted OAH compared to AH (research questions two and three), two logistic regressions are performed. Independent variables for each analysis are included under the headings 'predictors' in Tables 2 and 4. The dependent variable for both logistic regressions is victim age categorised as age sixty years and above to delineate OAH and eighteen to fifty-nine years for AH.

Prior to completing the regression analyses assumption checks were undertaken. An examination for outliers found seven cases where perpetrator age was an outlier in the perpetrator sample. These cases were removed from the perpetrator sample resulting in a final sample of 2,763 unique perpetrators. Next, we evaluated the crosstabulation of the dependent variable and predictor variables to check for sparsity, defined as any cell with less than ten individuals. We saw no sparsity as each cell had at least a count of ten. Finally, we evaluated whether the predictors in the models were multicollinear by estimating a generalised variance inflation

Table 4 Frequency and percentage of perpetrator characteristics across victim age group.

Variable	OAH case (age 60 and older) $(n = 416)$ $n(\%)$	AH case (age 18–59 years) (n = 2,347) n(%)		
Perpetrator ethnicity				
White	339(81.5%)	1641(69.9%)		
Black or Black British	21(5.0%)	273(11.6%)		
Asian or Asian British	19(4.6%)	202(8.6%)		
Mixed	7(1.7%)	69(2.9%)		
Chinese or other ethnic group	5(1.2%)	34(1.4%)		
Unknown	25(6.0%)	128(5.5%)		
Perpetrator drink drug level at offence	, ,	, ,		
Been drinking alcohol	83(20.0%)	711(30.3%)		
Taken an illicit drug	17(4.1%)	110(4.7%)		
Both drinking alcohol and taking	28(6.7%)	280(11.9%)		
an illicit drug				
None of the above	288(69.2%)	1246(53.1%)		
Perpetrator attempt/completed suicide		(==:,-,		
Yes	69(16.6%)	215(9.2%)		
No	323(77.6%)	2015(85.9%)		
Unknown	24(5.8%)	117(5.0%)		
Predictors	21(3.570)	117(3.570)		
Perpetrator gender				
Male*	352(84.6%)	2187(93.2%)		
Female	64(15.4%)	160(6.8%)		
Link to perpetrator mental state	3 1(13.170)	100(0.070)		
Yes*	125(30%)	327(13.9%)		
No	264(63.5%)	1877(80.0%)		
Unknown	27(6.5%)	143(6.1%)		
Perpetrator marital status	27(0.570)	143(0.170)		
Married/co-habiting	174(41.8%)	763(32.5%)		
Single*	152(36.5%)	975(41.5%)		
Separated/divorced	32(7.7%)	160(6.8%)		
Unknown	58(13.9%)	449 (19.1%)		
Previous serious conviction	38(13.5%)	449 (19.1%)		
Yes*	46(11.1%)	488(20.8%)		
No	328(78.8%)	1618(68.9%)		
Unknown	42(10.1%)	241(10.3%)		
Perpetrator known illegal drug use	42(10.170)	241(10.3%)		
Yes*	90(21.6%)	834(35.5%)		
No	294(70.7%)			
Unknown		1286(54.8%)		
	32(7.7%)	227(9.7%)		
Perpetrator employment status	0E/22 99/\	761/22 40/\		
Employed/student	95(22.8%)	761(32.4%)		
Unemployed*	191(45.9%)	1286(54.8%)		
Retired	98(23.6%)	33(1.4%)		
Unknown	32(7.7%)	267(11.4%)		

Note. \*Denotes reference group for the logistic regression analysis.

factor (GVIF) for each categorical predictor. GVIF values can be scaled to a typical continuous VIF metric and interpreted similarly. The largest GVIF value observed from either model was 2.08; all other values were below two. We therefore concluded that multicollinearity was not an issue.

### Results

### Case characteristics

The sample for all case and victim analyses was 3,274 with 509 (15.5 per cent) OAH victims and 2,765 (84.5 per cent) AH victims. Victims ranged in age from 18 to 106 with a mean age of forty-three (SD=16.97). Table 1 displays case characteristics and their frequencies by victim age group.

Frequency analyses of case characteristics revealed similarities and differences by age. Comparisons must be made with caution, however, as inferential statistics were not run. The order of frequency for offence location was the same across age. Yet, proportionally, and as hypothesised, OAHs took place more frequently in residential settings compared to AHs which occurred more frequently in public spaces. This follows expected behaviour patterns given that adults are more likely to frequent public places where conflict occurs (e.g., pubs, nightclubs) and were more frequently killed by acquaintances than older adults. The circumstances of the offence were most often classified as 'other' for both groups. Examples of other circumstances included 'mercy killings', financial gain (not related to domestic dispute), and neglect. The next most common circumstance was a domestic dispute for both OAH and AH. As hypothesised, OAH included fewer drug related motives. Of note is that motive categories captured only a minority of the OAH cases and only slightly more AH cases, in most cases none of the motives available were selected (i.e., none of the above category).

# Victim characteristics and predictors

**Characteristics.** Victim characteristics and their frequency are presented in Table 2 by victim age group as are the predictors used in the logistic regression. Frequency analyses showed that victims were primarily white (reflective of English and Welsh populations). Of note was the reduced frequency of victim intoxication and illegal drug use in the OAH group compared to the AH group.

**Predictors.** Predictors within the victim sample and their frequencies are presented in Table 2. A logistic regression analysis was conducted using categorised victim age as the dependent variable and the five victim-related predictors in Table 2 as the predictors. Missing values were deleted listwise resulting in a final sample of 3,079. We chose not to impute values due to the nature of variables examined. Overall, the model adequately fit the predictors and showed a small increase in prediction over the null model (see Table 3). The logistic regression model was statistically significant,  $\chi_2(8) = 361.53$ , p < 0.001, indicating that the

model reliably distinguished victim age. The model explained between approximately 11.1 per cent (Cox and Snell R square) and 19.2 per cent (Nagelkerke R squared) of variance over the null model, and correctly classified 86.1 per cent of cases. Nevertheless, the increase in prediction over the null model (84.5 per cent) was only 10.3 per cent when adjusted for the null model base rate classification. That is, the predictor model could only correctly classify 10.3 per cent of the victims not correctly classified by the null model. In terms of our dependent variable, the model correctly classified the AH group with 97.5 per cent accuracy, whereas the OAH group was only classified accurately 24.1 per cent of the time. Almost all predictors in the model were significant, but few had strong predictive power. Of note, victims of OAH were 1.62 times more likely to be female and 1.59 times more likely to be living with the perpetrator than AH victims.

Hypotheses related to victim characteristics were supported by the non-inferential frequency data. OAH victims were more likely to be female, and female gender was predictive of OAH in the model possibly due to shorter male life expectancy and younger males participating in more socially dangerous situations. Acquaintance relationships were more common in AH cases, whilst relative relationships were more common in OAH cases. Although relationship type was significant in the model, odds ratios were low and thus not interpreted. Similarly, the prevalence of prior perpetrator abuse was higher in AH cases and significant in the model, but the odds ratio was also found to be low (OR=0.43).

# Perpetrator characteristics and predictors

The sample for perpetrator frequency analyses was 2,763 with 416 (15.1 per cent) OAH victims and 2,347 (84.9 per cent) AH victims. Table 4 displays perpetrator characteristics and the predictors for the logistic regression save one, perpetrator age, as it is numeric. Perpetrators of OAH had a mean age of 49.5 years (SD = 18.0, range: 15–95), and perpetrators of AH had a mean age of 34.8 years (SD = 11.78, range: 13–72). Frequency analyses that included demographic and predictor variables provided an overview of the OAH group in contrast to the AH group. Non-predictor variables were mostly similar across age groups.

A second logistic regression analysis was conducted using categorised victim age as the dependent variable and the six perpetrator predictor variables in Table 4 as well as perpetrator age as the predictors. Missing values were deleted listwise resulting in a final sample of 1,772, values were not imputed. The model showed improvement over the victim model, it adequately fit the predictors and showed a small increase in prediction over the null model (see Table 5). The logistic regression

**Table 5** Logistic regression predicting older adult homicide vs adult homicide based on perpetrator characteristics.

							95% CI odds ratio	
Variable	В	SE	Wald	df	p	Odds ratio	Lower	Upper
Perpetrator age	0.06	0.01	77.95	1	0.000	1.06	1.05	1.08
Perpetrator gender	0.88	0.22	15.82	1	0.000	2.41	1.56	3.72
Link to perpetrator mental	0.90	0.17	29.12	1	0.000	2.45	1.77	3.39
state								
Perpetrator marital status								
Married/co-habiting	-0.82	0.18	19.95	1	0.000	0.44	0.31	0.63
Separated/divorced	-0.64	0.26	5.89	1	0.015	0.53	0.31	0.88
Previous serious conviction	-0.58	0.21	7.75	1	0.005	0.56	0.37	0.84
Perpetrator known illegal drug use	0.14	0.18	0.67	1	0.412	1.15	0.82	1.63
Perpetrator employment status								
Employed/student	-0.08	0.17	0.20	1	0.654	0.93	0.66	1.30
Retired	1.52	0.33	20.79	1	0.000	4.56	2.38	8.76
Constant	-4.19	0.32	175.04	1	0.000	0.02		

model was statistically significant,  $\gamma 2(9) = 334.38$ , p < 0.001, indicating that the model reliably distinguished victim age. The model explained between 17.2 per cent (Cox and Snell R square) and 29.5 per cent (Nagelkerke R squared) of the variance in age, and correctly classified 87 per cent of cases. Nevertheless, the increase in prediction over the null model (84.1 per cent) when adjusted for the null model base rate classification was only 18.2 per cent. Thus, the model correctly classified 18.2 per cent of the victims not correctly classified by the null model. With respect to the dependent variable, the model correctly classified 98.1 per cent of the AH group and 28.4 per cent of the OAH group. Most predictors were significant, but few had strong predictive power, those of note include gender, mental state and employment. Compared to males, when perpetrators were female the odds of the victim being classified as OAH by the model increased by a factor of 2.41. Perpetrators whose mental state was linked to the offence were 2.45 times more likely to be classified as OAH than as AH. Perpetrators of OAH were 4.56 times more likely to be retired compared to unemployed.

## Discussion

# Summary of findings

Overall, the results indicate two key findings for future research and data collection practices. First, OAH differs in important ways to AH

suggesting the need for different information to be gathered about OAH. Second, collecting information on and considering risk factors for older adult abuse may help as a guide to examining, understanding and predicting OAH.

At the case level, it was notable that the motive categories collected by the Home Office captured only a minority of the OAH cases and only slightly more AH cases. This suggests that different motives should be explored for inclusion in data collection by senior investigating officers. Continued research on OAH should be conducted to guide this change. Exploratory and/or qualitative research that does not impose pre-existing categories may help to identify new motive types that better capture OAH. Similarly, amongst victims there was a reduced frequency of victim intoxication and illegal drug use in the OAH group compared to the AH group, similar to Krienert and Walsh (2010). As with the motive categories, the intoxicant-related items seem less relevant to OAH and suggest that capturing different types of data may more accurately explain circumstances surrounding OAH.

Similarly, the circumstances of the offence were most frequently grouped as 'other' for OAH. This provides limited guidance for those relying on the data for decision-making. As above, exploratory and/or qualitative research would be helpful to determine what circumstances are of most relevance to OAH so that data can be gathered more specifically to guide practice.

Although the logistic regression model for victim characteristics showed only a slight increase in predictive power important conclusions can be drawn, which are also relevant to the perpetrator model. First, differences existed between OAH and AH cases. This was demonstrated by the models' classification of the dependent variable and the predictors. Both models showed high accuracy in classifying AH cases, suggesting that the variables collected by the Home Office are classifying AH well. By comparison, the OAH cases were not well classified, indicating variables were less relevant. Given the higher proportion of the population that is eighteen to fifty-nine years old compared to sixty years and over and the higher incidence of homicide in the former, it is logical that the data collected by the Home Office is most relevant to the younger demographic. Nevertheless, the result is that the variables necessary to predict OAH are not available in the national government dataset of record and need to be identified and collected in future research.

The second conclusion suggested by the data assists in this regard. Several of the variables included in the predictive model were selected because they are risk factors for older adult abuse (e.g., living with perpetrator, perpetrator mental state) (Storey, 2020). The significance of the predictors suggests that examining risk factors for older adult abuse in the context of OAH cases may provide evidence-based guidance to future research regarding which variables to examine, as well as policy and

practice referring to prevention and/or risk management. Conclusions must be tempered as the comparisons were across age (rather than within age between OAH victims and non-victims), and many of the predictors are likely to be relevant for all ages (e.g., prior abuse by the perpetrator). Nevertheless, the results suggest a path for future research, indicating a need for a specific identification and examination of characteristics of OAH and that such research should be guided by a consideration of the older adult abuse literature.

The perpetrator model demonstrated better fit than the victim model and more predictors with higher odds ratios. The same two conclusions as for victims can be drawn, OAH is different to AH and risk factors for older adult abuse may provide good direction for the ongoing examination of OAH. For instance, across the two models, living with the perpetrator and links between the homicide and the perpetrator's mental state were both significant predictors. This is an older adult abuse dynamic commonly reported in other studies where an adult-child is living with their parents (often dependent on parents for housing) and has mental health problems (Pillemer and Finkelhor, 1989; Lachs and Pillemer, 2015). Thus, knowledge can be drawn from our understanding of older adult abuse to guide future OAH research. Other predictors in the perpetrator model included female gender and employment status. Male perpetrators were still dominant in both groups, but the proportional increase in female perpetrators may be explained by the increased vulnerability of older victims, the caregiving roles held by women and general decrease in the criminal propensity of males as they age (Farrington, 1986; Allen et al., 2020). The increase in retired perpetrators in the OAH group follows given that the spouses and relatives (e.g., siblings) of older adults are more likely to be older and retired themselves compared to the AH group.

Limitations of the present study should be considered when interpreting the results. As this was secondary data analysis, the scope of the study was limited by the available data and the way in which it was coded/collected. Information was reported using a standardised form with guidance by those most familiar with the case. Nevertheless, the form was not prescriptive, and discretion was permitted. As such the operationalisation of variables is lacking. Clear and detailed operationalisation of variables as well as procedures to ensure the reliability of ratings would facilitate higher quality research on this important dataset. The Home Office also advises that the database is an administrative one so errors and incomplete data can occur. Thus, we cannot be as assured of the validity of the measure or the reliability of the responses as we would in a tightly controlled research environment. Further, the nature of the variables collected, we note, means that some variables were of less relevance to the older adult population and that variables of interest

could not be examined. This finding is critical and its implications for research and practice are discussed below.

### Implications for future research and practice

As noted above, further research is required to identify characteristics specific to OAH and the development of this research should be guided by the older adult abuse literature. We argue that the primary goal of any such work is OAH prevention. Currently the evidence-base that underpins prevention strategies and case management is modest (Addington, 2012). As per the Risk Needs Responsivity model, research on predictors of OAH should focus on dynamic predictors, those that are changeable (e.g., mental health problems, substance abuse) rather than static or unchangeable predictors (e.g., age, gender, ethnicity). Identifying dynamic predictors of OAH would allow for the implementation of focused prevention or case work to mitigate those risk factors to reduce the risk of homicide. Since statutory intervention in safeguarding should focus on both victims and perpetrators, it is also imperative to enhance understanding in statutory agency work, such as that provided by social workers or criminal justice professionals. Thus, an understanding of dynamic vulnerability and risk factors for older adults, as well as perpetrator characteristics, is critical to mitigating the risk for OAH.

Although older adults are not the most common victims of homicide, research examining the characteristics and predictors of OAH is critical given the increasing ageing population, the dearth of previous literature and the severity of the outcome (Kennedy et al., 2023), Research on OAH significantly lags adult and child research with only a few dozen studies on the topic (Rogers and Storey, 2019). This lack of research, we argue, has contributed to the current policy and practice limitations surrounding the understanding of OAH and subsequently our ability to prevent this most serious of crimes. Specifically, the minimal examination of OAH to date means that there is a gap in evidence-based policy and practice which could leave the growing ageing population without adequate protection against violence. This argument is well recognised in the child abuse and homicide field where a smaller but vulnerable segment of our population has received additional and age specific attention.

This neglect brings sharply into focus the invisibilisation of older people which may contribute to this dearth of research and subsequent lack of specific evidenced-based policy and practice. It is also, potentially, an example of systemic ageism which could be reflective of the low value placed on adults in later life. Without adequate data, policy, and practice relating to older adults, there may be considerable implications when the older adult population increases and there is a proportional increase in

older adult abuse and homicide. In the UK, for example, there is a lack of national policy on older adult abuse and OAH, comparable to that which exists for child abuse and ending violence against women (HM Government, 2016; Home Office, 2016). Instead, older adult abuse is subsumed into policy addressing safeguarding all vulnerable adults (LGA, 2013) and responses to older adult abuse have tended to be local, rather than national (Bows and Penhale, 2018).

It is also widely acknowledged that safeguarding frameworks to address older adult abuse should be developed that are multi-agency to incorporate social care, criminal justice and health (Bows and Penhale, 2018). Whilst existing frameworks provide useful, person-centred guidance (LGA, 2013), without separate older adult abuse and OAH guidance, there is a danger that existing policy and practice responses do not embed the specialised knowledge around risk, vulnerability, and predictability that effective intervention needs.

The results suggest that such distinct policy is necessary given that OAH is distinct from AH. Some countries such as the USA have taken this approach with separate review processes for OAHs (Stiegel, 2005), whilst in the UK OAH is still reviewed as any other domestic homicide with no tailored practices for older adult cases. Additionally, risk assessment to prevent OAH should be reflective of the research on older adult abuse and homicide, rather than the general risk or domestic abuse and homicide literature, which is often the practice in the UK. Specifically, risk assessment tools should be designed for the older adult population and developed based on the empirical literature on predictors of older adult abuse and homicide with predictors that consider the victim, perpetrator and their circumstances.

### Conclusion

This study was the largest national study of OAH conducted to date. The results indicate that OAH is distinct from AH and that to grow our limited knowledge in this area, a program of research that builds on the older adult abuse literature may be most fruitful. Research on OAH is extremely limited and the results indicate that we cannot rely on the AH literature alone. Indeed, this study has drawn attention to the persistence of inadequate data collection needed to advance understanding of OAH compared to AH. This, we argue, results in the neglect of older adult victims in interpersonal violence research, policy and practice. Therefore, future research is needed that builds on existing strengths in the older adult abuse literature so that we can better understand the nature and risks for OAH. Focusing such work on dynamic risk factors for perpetrators and victims will allow the field to work towards the prevention of OAH.

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### Conflicts of interest statement

The authors have no conflicts to disclose.

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