

Abuse and neglect of older people: Secondary analysis of UK prevalence study

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Executive Summary

Overview of secondary analysis

This report describes secondary analysis of data from the UK Study of Abuse and Neglect of Older People (UKPS).

The key aims of this secondary analysis were:

- to examine UK prevalence and risk factors associated with different definitions of mistreatment
- to examine risk factors ‘in context’, that is, with other risk factors taken into account, using multivariate analysis
- using merged data from the Health Survey for England, to explore a wider range of potential risk factors.

Introduction

The UK Study of Abuse and Neglect of Older People (UKPS) was carried out by the National Centre for Social Research (NatCen) and King’s College London (KCL) on behalf of Comic Relief and the Department of Health.

The UKPS collected data from a representative sample of over 2,100 UK respondents aged 66 and over living in private households (including sheltered accommodation).

Four types of abuse – financial, psychological, physical and sexual abuse – and neglect were covered; these are collectively termed mistreatment.

Methodology

The ‘*baseline*’ definition of mistreatment

In UKPS, a participant was classed as having experienced mistreatment if they had experienced financial, psychological, physical or sexual abuse, or neglect in the past year, by a family member, friend or care worker (*inner circle* perpetrators).

Within this ‘*baseline*’ definition, single incidents of financial, physical or sexual abuse were counted, but the threshold was higher for psychological abuse (10 or more incidents) and neglect (10 or more incidents, or fewer than 10 incidents with very serious consequences as perceived by the victim).

Definitions used in the secondary analysis

In this secondary analysis the ‘*baseline*’ definition was expanded to include:

- single as well as repeated (ie 10 or more) incidents of psychological abuse and neglect
- mistreatment by neighbours and acquaintances (*outer circle* perpetrators)
- financial and physical abuse since the age of 65: this information was not available for neglect and psychological abuse and there were too few cases of sexual abuse to analyse.

Analysis

Multivariate logistic regression was used to examine the risk factors for mistreatment in the context of other risk factors, that is, with other risk factors controlled for.

Unlike the bivariate analysis used in the UKPS, which explores the impact of one risk factor at a time, multivariate analysis examines the effect of multiple risk factors at once.

Key results and discussion

Different *definitions* of mistreatment

Different *definitions* of mistreatment obviously produce differing estimates of prevalence. In this study several definitions were used and the resulting prevalence estimates compared; this approach will facilitate comparisons with other studies.

Changing the definition, and therefore the size of the mistreated subgroup, also changes the relationship between risk factors. As expected, the size of the mistreated subgroup increased when single incidents of psychological abuse and neglect were counted and when mistreatment by *outer circle* perpetrators was included.

Generally speaking, expanding the mistreated subgroup reduces the number of significant risk factors associated with mistreatment and reduces the odds of those factors. In many cases the result is fewer and weaker indicators of risk.

Increasing the size of the mistreated subgroup through expanded definitions also changes which factors are associated with the different definitions indicating that different dynamics may be at play and suggesting that qualitatively different phenomenon are being observed.

Different *types* of mistreatment

Counter to assumptions often made in the literature on mistreatment, we found little evidence to support the likelihood that an older person subject to one *type* of mistreatment will also be subject to others. From our evidence, different types of mistreatment and types of perpetrator appear unlikely to cluster, and appear to be case specific.

Different types of mistreatment have factors that are specific to them, for example, housing tenure was associated with financial abuse since 65 but not with other types of mistreatment. This suggests that particular risks may cluster around specific forms of mistreatment.

However, different types of mistreatment also have certain core risk factors in common. For example, quality of life was associated with neglect, psychological and financial abuse.

In sum, the results point to a phenomenon that is complex, multi-faceted and sensitive to different perspectives. While different types of mistreatment hold certain characteristics in common, there is enough evidence of specificity to make it unwise for them to be treated as the same. Each evidences a different dynamic.

Further summaries in this report

Details of each permutation of definition, risk and type has been summarised at regular intervals in the body of the report. Table 14 shows factors associated with different *definitions* of mistreatment; Tables 22 and 34 shows the factors associated with different *types* of mistreatment for UK wide (Table 22) and England only samples (Table 34).

A detailed content summary is included below. This gives a brief overview of the prevalence and key risk factors associated with different definitions of mistreatment, and their impact.

Detailed Content Summaries

Comparing Prevalence of Mistreatment for Different Definitions.

As expected, widening the definition of mistreatment to include single incidents of neglect and psychological abuse (rather than only counting cases including 10 or more) increased the prevalence of neglect, as did expanding the definition to include neighbours and acquaintances (*outer circle* perpetrators) as well as family, friends and care workers (the *inner circle* perpetrators). The one year prevalence of mistreatment, based on a sample of 2,111 people aged 66 and over in the UK, was 2.6% for the *baseline* definition, increasing to 5.3%, when only one incident of psychological abuse and neglect was required, and to 8.6% when mistreatment by neighbours and acquaintances was included. In essence, the prevalence of mistreatment increased from 1 in 40 to almost 1 in 10 with changing definition.

Significant Risk Factors for Mistreatment.

Variables found to indicate a significant likelihood of risk when a multivariate analysis was used (as reflected in odds ratios) included; sex, marital status, socio-economic classification, depression, quality of life, and regularly taking medicine. Within the 65 and over age group, age tended to drop out as a risk factor when other variables were taken into account. Older people with an increased risk of mistreatment were likely to be female, separated or divorced, have experienced depression, have a poor quality of life, and take regular medication. The pattern with socio-economic group was more complex. A merged dataset of HSE and UKPS added several risk factors: number of falls, mobility problems, negative views about the local neighbourhood and lacking regular contact with friends.

Risk factors and Different Definitions of Mistreatment

Mistreatment

Marital status, depression, quality of life and use of medication remained significant risk factors for mistreatment, regardless of definition used. Increasing the scope of the definition appeared to reduce the overall number of risk factors. For example, sex was a risk factor in mistreatment by *inner circle* perpetrators, but when neighbours and acquaintances were added to the definition, sex differences ceased to be significant.

The strength of various risk factors also appeared to change with changing definitions of mistreatment. The odds ratio associated with sex (being female) was 3.08 for the *baseline* definition of mistreatment and 1.18 for *all* mistreatment with *inner circle* perpetrators, and sex was not significant when *all* mistreatment and *all* perpetrators were included. These changes may be influenced by qualitative differences in mistreatment as well as by the more robust estimates associated with a larger mistreated subgroup.

Neglect and psychological abuse (single versus repeated incidents)

Neglect, whether single or repeated (10 or more) incidents, was associated with quality of life and visits to a lunch club or day centre. Single incidents of neglect, were associated with depression and long-term illness. In contrast, repeated incidents were found to be associated with general health and socio economic status.

The effects of definition on psychological abuse were more marked. With the inclusion of *outer circle* perpetrators, 'demographic' variables such as highest educational qualification and age replaced 'health and service use' factors as indicators of risk.

Financial and physical abuse (since 65 versus in the past year)

As expected, prevalence of financial and physical abuse by *inner circle* perpetrators increased when definitions included incidents occurring since the victims' 65th birthday rather than in the past year. Prevalence of financial abuse increased from 0.7% to 1.2% and prevalence of physical abuse increased from 0.4% to 0.8%. Including mistreatment by *outer circle* perpetrators since 65th birthday increased prevalence further; the differences were less marked for financial abuse which nevertheless remained the most prevalent category of the three. When *outer circle* perpetrators were included use of services, quality of life and loneliness remained common factors associated with financial abuse; a number of additional factors also emerged which tended to centre around aspects of social exclusion.

Clustering of mistreatment and perpetrator type

Around 9% of mistreated individuals reported two types of mistreatment, and none reported more than two.

A small proportion of older people reported mistreatment by more than one type of perpetrator, with 15-18% of mistreated individuals reporting two types of perpetrator, from partners, family members, friends, care workers, neighbours and acquaintances.

Risk factors for Gender and Mistreatment

While marital status was significantly associated with the likelihood of mistreatment for both men and women, the effects were different. Single (never married) men (but not single women) had lower odds of experiencing mistreatment than those who were living as a couple. Women (but not men) who were separated or divorced had a greater risk of mistreatment while those who were widowed had a relatively reduced risk. All other variables in the model seemed to have similar effects for both men and women.

Comparing Types of Abuse and Neglect

With respect to comparing different types of abuse and neglect, risk factors show considerable distinctiveness according to type, with little overlap. Where there is overlap the direction of the effect may differ between types of mistreatment.

Poor quality of life is the only factor that covers each type of mistreatment, with the exception of physical abuse.

Loneliness in the past week, use of care services and marital status were associated with both financial abuse and physical abuse. However financial abuse is associated with being single or widowed and physical abuse with being separated or divorced.

Neglect and psychological abuse were associated with long term illness and with shared visits to a lunch club or day centre. However, visiting is in the opposite direction between types: visiting a lunch club is associated with an *increased* risk of neglect but with a *decreased* risk of psychological abuse.

As with financial and physical abuse, psychological abuse was associated with use of care services but the trend was in the opposite direction, with psychological abuse being negatively associated with service use.

The Effects of Additional Variables from the Health Survey England

A series of additional factors were included using merged data from the Health Survey for England. This extended multivariate analysis confirmed the impact of certain risk factors, namely: marital status, sex, depression/psychosocial wellbeing, regular medication.

Several new factors also emerged, although the impact of these varied with the *definition* of mistreatment used (this may be influenced by the size of the mistreated subgroup for the England sample). Broadly, increased likelihood of 'mistreatment' was associated with: mobility problems, having had 3 or more falls in the past 12 months, regular contact with family and friends; and having a negative view of the local neighbourhood.

For different types of mistreatment, the following associations were found using *bivariate* analyses: mobility problems, number of falls, health status, wellbeing, depression and views of the local neighbourhood. Significant findings are summarised below:

- Neglect was reported by 2.4% of those who had a mobility problem, but was not reported by those who had no mobility problems in the past year.
- Falls in the past 12 months were significant, with older people who had fallen more likely to experience financial abuse (0% no falls, 3.8% 3+ falls) and interpersonal abuse (0.6% no falls, 6.0% 3+ falls).
- Those with anaemia more likely to have reported neglect (7.3%) than those who did not have anaemia (0.5%).
- Financial abuse was higher among those with a bladder problem (1.7%) than without (0.4%).
- Self-reported health status (EQ-5D) was associated with neglect (1.6% with problems, 0% without, as assessed by EQ-5D).
- Prevalence of neglect increased with GHQ12 score from 0.3% (GHQ12 score 0) to 4.3% (GHQ12 score 4+). Interpersonal abuse increased from 0.5% to 3.8% across the same range of GHQ scores.
- Those with a high depression score (GDS10) were more likely to report neglect (4.8% of those with a GDS10 score of 3 or more, compared with 0% for lower scores).
- Not having a positive view of the local neighbourhood was associated with neglect.

Interpreting risk factors

Risk factors are factors found to be associated with mistreatment in some way. The way in which risk factors affect the likelihood of mistreatment is varied and complex, and the impact of risk factors may be altered by the presence of other factors (the multivariate analysis takes this into account). At its most basic level, a risk factor could have a causal influence, be the result of mistreatment, or simply vary with the mistreatment influenced by some common factor.

For example, depression is one the risk factors associated with mistreatment regardless of definition used. Although depression may increase the likelihood that older people perceive and report mistreatment, it may also be a consequence of experiencing mistreatment or indeed a response to some common factor, such as mobility problems.

The final possibility should be taken into account by using logistic regression: other variables are accounted for, so if a significant association still exists it should be a genuine relationship with this variable rather than the variation being influenced by another common factor. However, we may still have omitted an important variable – unknown to us or unmeasured.

1 Introduction

1.1 Overview of current study

This study comprises secondary analysis of the prevalence study, the UK Study of the Abuse and Neglect of Older People (UKPS). There were three main objectives to this analysis namely:

- to provide prevalence estimates based on alternative definitions of mistreatment, and analyse the relationship between the key variables that emerge;
- by using multivariate logistic regression analysis, to provide a better understanding of the importance of the various risk factors associated with experience of mistreatment;
- to link data from the Health Survey for England (HSE), in order to explore a wider range of factors associated with individuals' experience of mistreatment than was possible in the main UKPS report.

Key results from these analyses are presented in this report, along with the background and policy context, methodology and implications of the findings.

1.2 Background and policy context

The UK Study of Abuse and Neglect of Older People is the first dedicated study of elder mistreatment in the UK. The study was carried out by NatCen and King's College London, funded by Comic Relief and the Department of Health. The background, policy context, methodology and results of this study are described in the main UKPS report.¹

The current report examines the definition, risk and content of elder mistreatment, based on a detailed analysis of data from the first United Kingdom prevalence study. As well as looking at the effects of different definitions on the prevalence estimates, it also uses an expanded dataset and multivariate analysis to examine the relative importance of risks that emerge when other factors are taken into account. In other words it provides a detailed and complex understanding of the data and the conclusions that can be drawn from it.

Introduction to Policy and Scientific Evidence

Differences in definition have posed a longstanding problem of the scientific, policy and practice literature on elder mistreatment, giving rise to considerable variation in assessments of prevalence and the risks that older people may face. A number of attempts have been made to explain these differences. Brammer and Biggs² refer to the conceptual or pragmatic origins of the definitions. In other words, variation arises from differing concerns such as a theoretical interest in the scope and nature of mistreatment or from practical responses to an emerging social problem. They argue that both are necessary in order to provide the field with a reliable, yet valid ground for future policy.

Stones³ distinguishes between three different types of definition:

- "Connotative definitions" that attempt to provide a comprehensive meaning for elder mistreatment. An example of such a definition is that of the World Health Organization (WHO) /Action on Elder Abuse (AEA): *'single or repeated acts, or lack of appropriate action, occurring within a relationship where there is an expectation of trust, which causes harm or distress to an older person'*.⁴
- "Structural definitions", suggest the contravention of "acknowledged standards" such as those specified in law or in ethical codes or what are believed to be community standards.

- Finally "Denotative definitions", the most commonly used, define mistreatment by offering descriptive examples of what is considered abusive behaviour. These list different types of mistreatment, such as physical, psychological, sexual, financial abuse and neglect.

The current state of play has been summarised by the US National Research Council's 2003 review as: 'Largely descriptive and pragmatic, taking the concepts and definitions used in practice or in statutes as given, rather than deriving the concepts and measures from theoretical premises or hypotheses. The a-theoretical nature of the research is reflected in the tendency to lump all forms of mistreatment within a single category'⁵.

This summary suggests there are considerable obstacles to effectively responding to mistreatment, if the different ways that measures are combined are not more fully understood. Further, the wide variety of influences on definition, risk and content has led to confusion and sometimes heated debate about the nature and extent of mistreatment.

The UKPS has been acknowledged as one of the most comprehensive and rigorous studies available to date.^{6 7} It provides a unique opportunity to examine further the effects of prevalence estimates of mistreatment. It also allows for a more detailed assessment of factors associated with the likelihood of mistreatment in terms of risk factors that are held in common or are specific to particular types. In association with data from the Health Survey for England, it allows a wider number of factors to be taken into account.

In order to place this new analysis in context, issues in the policy and scientific literature are briefly outlined.

Policy Context.

While there had been a tradition of public inquiries into institutional abuse, elder mistreatment was relatively late to emerge as a public policy issue in the UK. Formal recognition of mistreatment as a British problem arose in 1993 with the publication of the Department of Health's guidelines 'No Longer Afraid'⁸, which followed a campaign centred around the social work press⁹ and the simultaneous launch of the pressure group 'Action on Elder Abuse'. While Elder Abuse and Neglect were, 'discovered' at approximately the same time in the United States and in the UK, the latter emerging from Eastman's¹⁰ pioneering work in East London, UK responses have tended to follow those in the US in terms of conceptual development. This has been particularly true of an emerging evidence base, with the first North American research on prevalence being published by Pillemer and Finkelhor¹¹ in 1988, and the first UK prevalence study, almost two decades later.¹

In the UK context, recognition of the problem paralleled a change in policy that emphasised a mixed welfare economy and a focus on care in the community, through the introduction of the 1990 NHS & Community Care Act¹². A new focus on informal care leads to a shift in focus away from institutional abuse and toward the domestic environment as the principal location of elder mistreatment¹³. The full title of 'No Longer Afraid' included, for example, the strap-line 'the safeguard of older people in domestic settings', which both reflected contemporary developments and helped to shape perceptions of mistreatment as an emerging social problem. This focus was reinforced as practitioners and policy-makers looked to related phenomena to help in the understanding of the new issue, with the most obvious sources arising from child protection and the field of domestic violence¹⁴.

In terms of problem formation, elder mistreatment has also shown characteristics that distinguish it from typical processes of recognition and action. Blumer's¹⁵ (1971) classic model, for example, predicts a groundswell of public opinion, leading to professional activity that leads to formal

definition by the state. A series of campaigns by Action on Elder Abuse, Age Concern and Help the Aged, have not, to date, generated such a groundswell and have largely occurred following professional or family activity rather than public concern. Further, the victims of elder mistreatment are unlikely to be in a position themselves to raise awareness either because of problems of physical frailty, mental capacity or through fear of intimidation. Contributions to the debate have therefore tended to be 'for' rather than 'by' the older people affected.

The publication of Government Guidance 'No Secrets'¹⁶ (for England and Northern Ireland), and 'In Safe Hands'¹⁷ (for Wales) in 2000 gave a significant boost to UK recognition, both of which address the mistreatment of vulnerable adults. Abuse was defined in 'No Secrets' as:

*'A violation of an individual's human and civil rights by any other person or persons. Abuse may consist of a single or repeated acts. It may be physical, verbal or psychological it may be an act of neglect or an omission to act, or it may occur when a vulnerable person is persuaded to enter into a financial or sexual transaction to which he or she has not consented or cannot consent. Abuse may occur in any relationship and may result in significant harm to or exploitation of, the person subjected to it.'*¹⁶

It also defined a wide range of potential perpetrators, including: '*relatives, family members, professional staff, paid care workers, volunteers, other service users, neighbours, friends and associates, people who deliberately exploit vulnerable people and strangers*'.¹⁶

In 2003/4 the House of Commons Health Committee on Elder Abuse recommended broadening the definition to include persons who do not require community care services.¹⁸ In 2005 the Association of Directors of Social Services published 'Safeguarding Adults'¹⁹ which replaced 'vulnerability' with 'risk to independence' and attempted to shift professional attention away from the characteristics of the victim and toward 'the actions and omissions of others'. And while, in comparison to the US, UK policy has maintained a welfare-based rather than a criminal justice perspective on mistreatment, the Mental Capacity Act 2005²⁰ has created an offence relating to abuse or neglect and the Adult Support and Protection (Scotland) Act 2007²¹ has adopted a legislative framework to protect adults at risk. At the time of writing, 'No Secrets' was itself subject to consultation (Safeguarding Adults, 2008)²².

Scientific Context.

In the United States, the National Research Council Review of Elder Mistreatment⁵ has made a number of criticisms of existing research and their accompanying definitions. These include a tendency to '*refer to the entire range of problems experienced by elders as 'abuse'*', a lumping together of all forms of mistreatment, despite evidence that different forms differ substantially and the inclusion of self-abuse and neglect as a single category. The current use of definitions and resulting risk factors has been inconsistent and subject to wide variation. It follows that reliable comparison between different datasets has been fraught with difficulty.

There are now nine prevalence studies reported in the scientific literature, including two from the USA,^{11 23} two from Canada,^{24 25} four from Europe^{1 26 27 28} and one from Israel²⁹. Three of these have been based on the family, five on community samples and one on the criminal justice system. The time periods covered vary according to definition, and include: since 60, since 65, and for the past 5 years, one year and three months. The type of abuse has also varied depending on the study in question. The estimated prevalence for overall mistreatment varies from 0.8% to 18.4%, with most studies estimate prevalence around 3%.

The scientific literature on risk factors includes a number of items. Hudson's³⁰ seminal review of risk identifies different factors depending upon type of abuse and minimal overlap with neglect. Common factors, such as living arrangements, varied by type of abuse, so that risk of physical and psychological abuse co-existed with marriage, living with others and physical capacity. Financial abuse was related to being unmarried, living alone and having poor physical health. Neglect was associated with widowhood, poor health and social isolation.

Spenser and Gutman's³¹ (2008) review, following the NRC's distinction between risk factors and risk indicators, divided factors into three categories based on available evidence.

- Factors clearly indicating risk included: shared living situation (with the exception of financial exploitation), social isolation and poor social networks, and presence of dementia (for physical abuse).
- 'Possible' indicators included gender, personality of the victim and race (which they considered to be an artifact of social deprivation). They noted that there was currently insufficient evidence to include relationship to victim as an indicator.
- 'Contested' indicators included physical impairment, victim dependency, care induced stress and intergenerational transmission of abuse.

The majority of studies on risk include a mixture of accrued practice and scientific evidence, and as they do not generally undertake a multivariate statistical analysis, tend to identify broad factors (such as living arrangement) and then compare 'by eye' the different patterns and attributes that lie within them.

There is now a growing consensus that clarity of theory and method requires analysis of a complex series of influences²⁹, extending to measures used³². Recent emphasis has been on integrating multiple viewpoints. Reports have noted an international growth in concern about elder mistreatment and the cultural specificity of certain forms³³, issues of public perception³⁴ and differences between types of abuse³⁵.

Policy and Research

It becomes clear from this review that both policy and scientific approaches have resulted in considerable variation in terms of context, definition and risk. However, a systematic analysis of the effects of such variation has yet to be undertaken.

Policy in the UK has tended to draw on definitions that combine conceptual and pragmatic origins and are connotative. In other words, they have pushed toward broad definitions that are inclusive and are a spur to action. This differs from the US experience where legal and statutory definitions have restricted definitional scope. The use of broad and restrictive definitions has also tended to vary when it comes to scientific investigation, with US researchers claiming a broad spectrum approach in contrast to policy⁵, whereas in the UK, researchers on prevalence have attempted to operationalise specified forms of mistreatment in terms of denotative behaviours³⁶.

Crucially, policy and research have tended to draw the boundaries differently, as reflects their different purposes. Policy definitions have tended to develop and be responsive to changing historical and political priorities. They have tended to use service availability as a proxy for vulnerability and risk. They are often specific in terms of relevant service contexts, while, following the WHO/AEA example, being broad in overall scope. Research definitions require objective criteria that can be reliably measured, but have tended to use perpetrator or victim typologies as a proxy for the more fuzzy notion of context. They cast their nets widely and inclusively, however, in

the sense of attempting to understand the phenomenon under study. Applied research requires that a compromise be found so that both purposes can be met.

Extending the UKPS Findings

The WHO/AEA definition was used as a starting point for the UKPS study, and attempts to turn it into something that was measurable brought a number of issues into sharp relief. First, it became clear that concepts such as 'position of trust', did not map easily onto type of perpetrator as defined by the study. Second, reliance on previous research to describe number of incidents (to facilitate comparability of data), exposed the ambiguous meaning of single or repeated (or multiple) events. Other factors, such as the use of age or time passed as inclusion criteria, while adding breadth to the research evidence, created controversy in the public arena. Each decision influences the outcome in terms of the estimated prevalence, and the relationship between types of abuse and categories of perpetrator and thus the estimate of risk.

The current study constitutes an attempt to examine some of these questions. It is the first time that different prevalence estimates have been generated from the same dataset, rather than by comparing the results from different studies. It allows the degree to which different forms of mistreatment share common risk factors to be assessed. By the same token, the factors that are specific to different types of mistreatment can also be identified. Finally by combining different operational definitions of mistreatment with an expanded range of variables taken from the Health Survey for England, a larger group of victims can be used to examine the effect of a wider range of risk factors on mistreatment. In other words, it allows us to examine the extent to which different operation definitions result in different levels of prevalence; whether 'single or repeated' (or multiple) events make a difference and whether how widely perpetrators are defined changes the indicators and dynamics of risk.

It holds out the promise of providing policy makers, practitioners and researchers with a deeper understanding of this complex phenomenon, allowing them to:

- see the effects of focussing on different criteria or definitions of who is a perpetrator, on the prevalence of mistreatment
- judge the degree to which the likelihood of mistreatment, in terms of risk, varies between types of mistreatment
- assess whether specific or common responses are required to different forms of abuse and neglect.

1.3 Objectives of this report

There are three key research objectives addressed within this report:

- to provide prevalence estimates based on alternative definitions of mistreatment, and analyse the relationship between the key variables that emerge;
- by using multivariate logistic regression analysis, to provide a better understanding of the importance of the various risk factors associated with experience of mistreatment;
- to link data from the Health Survey for England (HSE), in order to explore a wider range of factors associated with individuals' experience of mistreatment than was possible in the main UKPS report.

In the main UKPS report a relatively narrow definition of mistreatment was used. This covered mistreatment perpetrated by a family member, friend or care worker within the past 12 months.

While the main UKPS report also included some prevalence estimates based on broader definitions covering mistreatment by a neighbour or acquaintance and mistreatment since the age of 65, these were not the main aim of that report. Conversely, a key aim of this report is to expand the definitions of mistreatment to include:

- *Single* incidents of psychological abuse and neglect (the original definition required repeated, or multiple, incidents or events with very serious consequences);
- Mistreatment by different perpetrators including not only family member, friends or care workers, but also neighbours and acquaintances;
- Financial, physical and sexual mistreatment since the age of 65 (not just in the past year).

This extended analysis is also designed to explore in more detail the factors associated with mistreatment by using multivariate logistic regression analysis. Logistic regression is used to assess which variables influence the likelihood of mistreatment when all other variables are taken into account and to understand how each variable influences mistreatment. Where possible, multivariate logistic regression is also used to understand the nature of mistreatment captured by the broader definitions of abuse described above.

Lastly, for respondents in England, this report combines key UKPS variables with additional variables from an earlier health survey (ie the Health Survey for England, or HSE) that UKPS respondents took part in. Selected variables from the HSE include: household income, social capital, obesity, nutrition and haematological status, alcohol consumption, disability, falls, self-reported health status, bladder problems, mobility problems, psychosocial health (GHQ12) and depression (geriatric depression scale, GDS10).

1.4 Definitions of abuse and neglect

The UKPS covered four types of abuse (financial, physical, psychological and sexual abuse) and neglect; these were collectively known as mistreatment. Figure 1a provides an overview of the different definitions of mistreatment explored in this report and Figure 1b shows the types of mistreatment included.

Figure 1a, 1b

Mistreatment

The five types of mistreatment covered in the report are:

- Financial abuse “the unauthorised and improper use of fund, property or any resources of an older person”
- Psychological abuse “the persistent use of threats, humiliation, bullying, swearing and other verbal conduct, and/or any other form of mental cruelty that results in mental or physical distress”
- Physical abuse “the non-accidental infliction of physical force that results in a bodily injury, pain or impairment”
- Sexual abuse “direct or indirect involvement in sexual activity without consent”
- Neglect “repeated deprivation of assistance needed by the older person for important activities of daily living”.

The operational definitions are described in detail in the main UKPS report (Chapter 1).¹

Three key terms are used when discussing more than one form of mistreatment:

- ‘*mistreatment*’ is used to refer to all forms of abuse (psychological, physical, sexual and financial) and neglect
- ‘*abuse*’ is used to refer to all forms of abuse, *excluding* neglect

- 'interpersonal abuse' is used to collectively describe physical, psychological and sexual abuse.

Changes to the definition

The '*baseline*' definition of mistreatment covers mistreatment in the past year by a family member, friend or care worker (*inner circle* perpetrators).

Financial, physical and sexual abuse are based on single incidents, but cases of psychological abuse and neglect are recorded only if there are multiple or repeated incidents (10 or more incidents or, in the case of neglect, fewer than ten incidents with consequences perceived, by the victim, as very serious).

The *baseline* definition is expanded in this report to include:

- *all* perpetrators, so that mistreatment by neighbours and acquaintances is included along with that by family members, friends and care workers.
- *all* incidents of neglect or psychological abuse in the past year.
- financial, physical and sexual abuse *since the age of 65*

Full details of the changes are given in Section 2.1.

When the definitions are expanded to cover *all* incidents, the related summary variables are: *all* mistreatment, *all* abuse and *all* interpersonal abuse. The perpetrators included are stated along with the summary term.

Perpetrator type

As in the UKPS, mistreatment is defined as a behaviour that takes place in the context of a relationship and specifically a relationship in which there is some degree of trust.

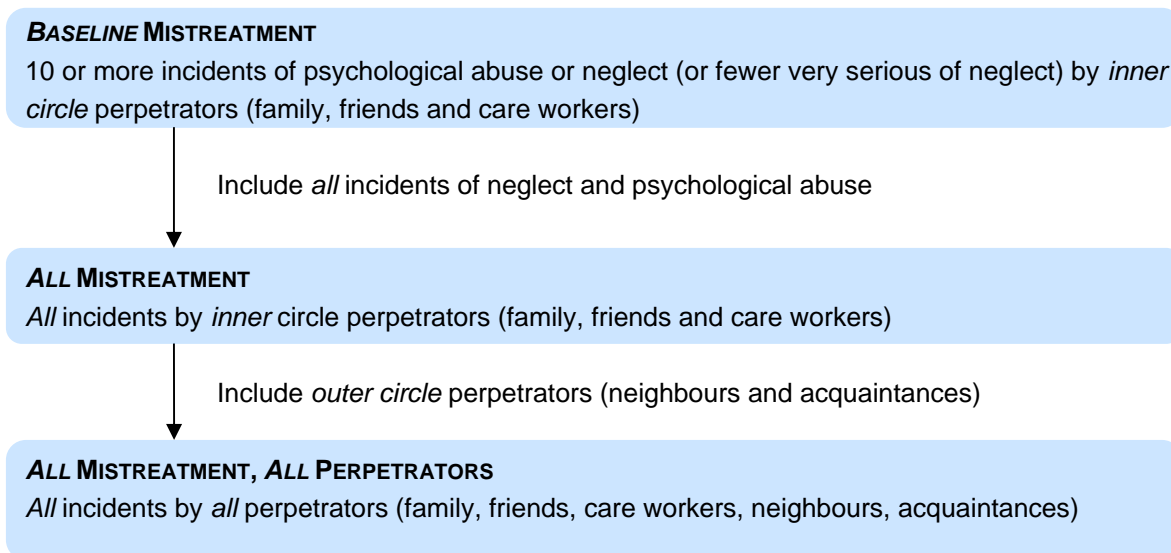
Figure 2 shows the concept of trust relationships, represented as *inner* and *outer circles* of trust, as applied to perpetrator type. In this report perpetrators have been split into two broad groups based on their relationship to the respondent. The '*inner circle*' includes family members, friends and care workers, while the '*outer circle*' includes neighbours and acquaintances.

Figure 2

The term '*all* perpetrators' will also be used to refer to family, friends, care workers, neighbours and acquaintances.

Figure 1: Definitions of mistreatment used (a) and key types of mistreatment (b)

a) DEFINITIONS OF MISTREATMENT



b) TYPES OF MISTREATMENT

Five key types of mistreatment included in study; interpersonal is an aggregate category.

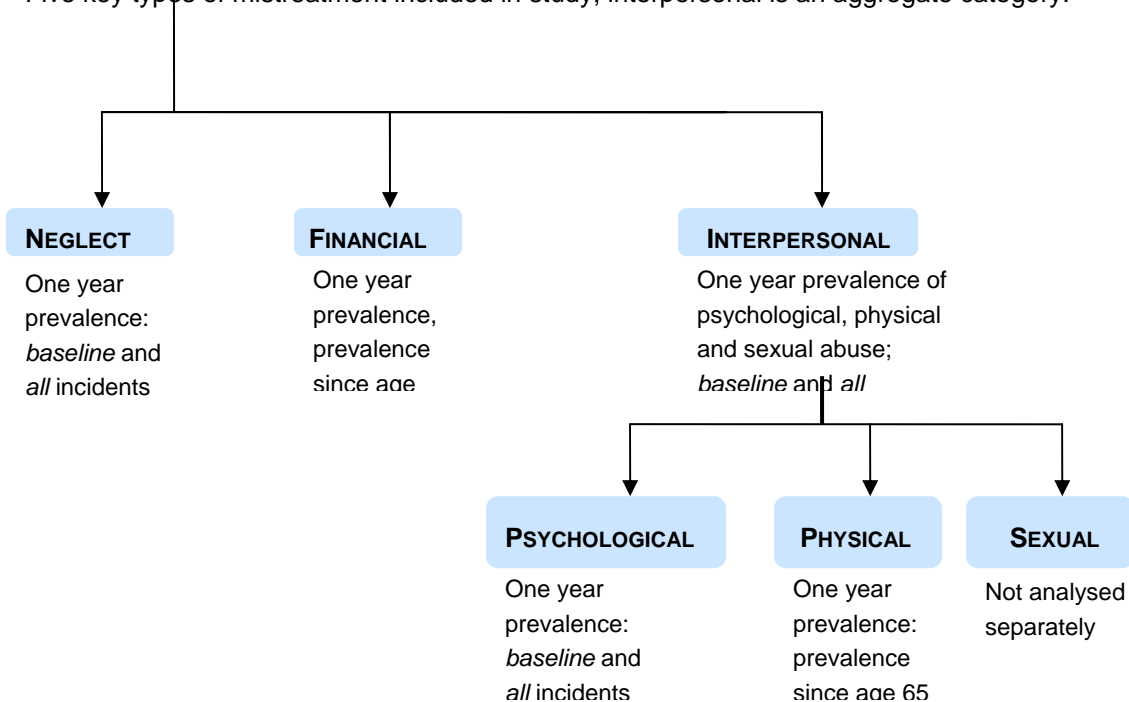
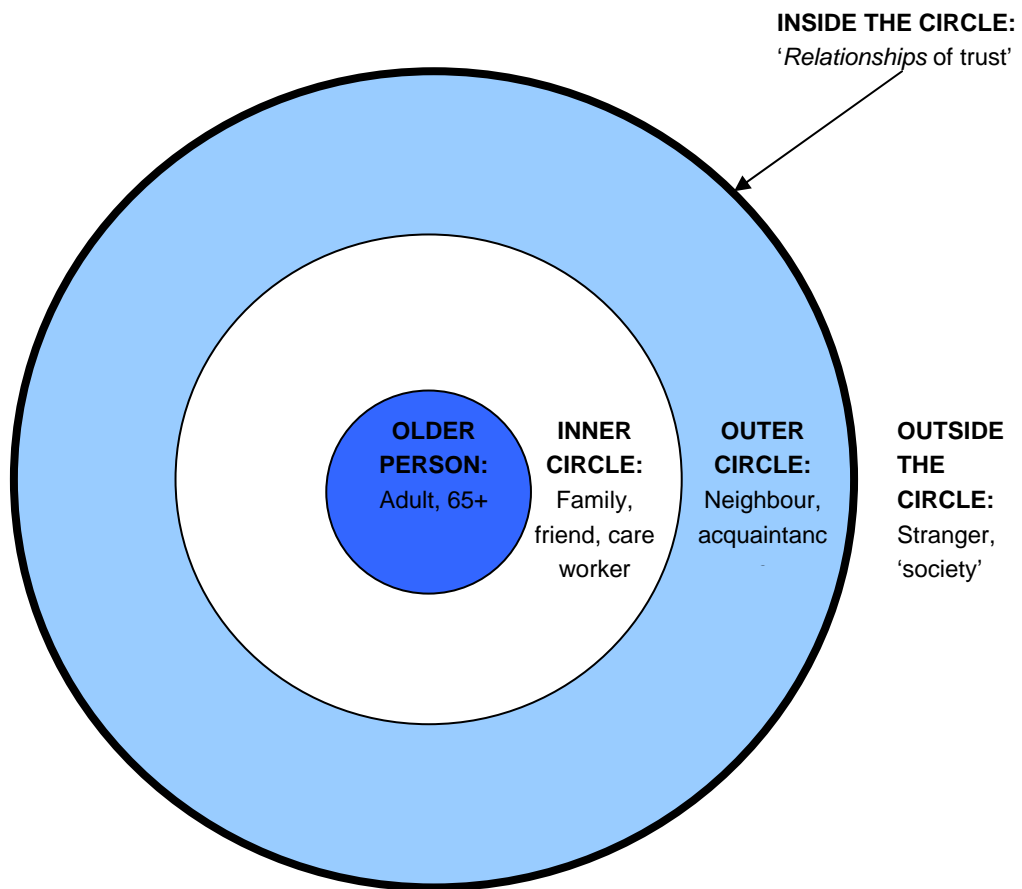


Figure 2: Inner and outer circles of trust as applied to perpetrators of mistreatment.



1.5 Methodology

The UKPS study

The UK Study of Abuse and Neglect of Older People (UKPS) covered 2,111 respondents aged 66 and over from across the UK. The sample was a nationally representative probability sample, based on a follow-up of respondents who had previously taken part in government commissioned health surveys in England, Scotland and Northern Ireland. Informants in Wales were selected using a Postcode Address File (PAF) sample and doorstep screening to identify adults aged 66 and over. Data was collected over a 6 month period, between March and September 2006. Overall response to the UKPS interview was 65%. The methodology is described in detail in the main UKPS report, available on the Department of Health website.¹

Datasets

The UKPS dataset includes data from 2,111 respondents who took part in the UK Study of Abuse and Neglect of Older People. In the current report, different definitions (Chapter 2) and key risk factors associated with mistreatment (Chapters 3 & 4) are explored using the UK wide dataset.

Additional risk factors are examined using a merged dataset, for England only, with variables from the UKPS and the 2005 Health Survey for England (Chapter 5). This merged dataset comprises UKPS and HSE data from 1,047 respondents in England. Further details about the HSE can be found in the 2005 report.³⁷

Methods of Analysis

Two key methods of analysis are used to examine factors associated with mistreatment as a whole and with different types of mistreatment.

Bivariate analysis is used to look at the association of particular variables with mistreatment, for example age, marital status or general health. Typically the associations of these variables are explored separately for men and women. (However, when data for England is analysed alone in Chapter 5, small base sizes preclude analysis by sex.)

Multivariate analysis is used to examine the association of each variable on mistreatment, while *controlling for* other factors. In this report, logistic regression models are used to identify variables that are significantly associated with an increased or reduced risk of a particular outcome (in this case the experience of mistreatment) and to explore the nature of this relationship, that is whether a certain factor increases or reduces the risk of mistreatment and the degree to which it does this.

Multivariate logistic regression analysis provides a better understanding of the relationship between each factor and mistreatment that is unique or independent from the other factors in the model. For example, if women were found to be more likely to suffer from mistreatment than men in the bivariate analysis, this may just be masking the fact that more women suffer from depression, and it is this variable, not sex, that is actually the predictor of mistreatment.

Multivariate analysis allows the effects of both sex and depression on mistreatment to be looked at in conjunction. So if it was indeed the case that depression was the predictor of abuse, and not sex, sex would not be significant in the logistic regression model while depression would be.

Given that a variable influences mistreatment, logistic regression allows us to understand *how* that influence works. Although bivariate analysis might highlight a significant association between

mistreatment and marital status it would not show the direction of the association. (By looking at the prevalence rates in each cell one could deduce this, but it is not possible to tell which differences are significant and which are not.) If marital status emerges as a significant factor in our logistic regression analysis, we can look at the odds ratios *in each category* of marital status, allowing us to see if there is a higher odds of being mistreated if: a person is single, and/or a person is separated or divorced, compared with being married or cohabiting.

The key stages of multivariate analysis are outlined below:

- A binary dependent, or outcome, variable is selected where the variable has a value of 0 or 1 for each person. In this report, the outcome variable most often used is mistreatment, with respondents having a value of 0 (no mistreatment) or 1 (mistreatment).
- Multiple predictor variables are selected, typically variables or factors that are likely to be associated with a particular outcome. The variables selected for the initial models in this report were those found to have a significant effect on mistreatment in the bivariate analyses.
- The selected variables are all entered into the initial model.
- The multivariate logistic regression analysis takes place over a series of steps. The way this happens depends on the particular approach selected but usually the analysis looks at the impact of each variable on the outcome variable (mistreatment) at each step and excludes factors found not to be significant before repeating the process. This process continues until all the variables that are not significant have been excluded.
- The final model contains all variables found to have a significant effect on the outcome variable (mistreatment). The influence of each of these factors is significant when all other factors in the final model are taken into account (ie if multiple samples were taken one would expect the estimates to be within the confidence band 90% of the time).

The results of the multivariate analysis are displayed in a table showing information about the final model.

- Each predictor variable is given a probability that it has a significant impact on the outcome variable. In this report, variables are regarded as significant if $p \leq 0.10$.
- Odds ratios are shown for each category of a variable. One category is selected as the reference category and given an odds ratio of 1. The model then provides odds ratios for all other categories which express the likelihood of a particular outcome (eg of having experienced mistreatment) relative to the reference category. Odds ratios greater than 1 indicate higher odds while those less than 1 indicate lower odds than the reference category.
- One can be 90% confident that the true value of the odds ratio lies between the upper and lower confidence intervals shown.
- The 90% confidence intervals can be used to determine whether a particular category is *significantly* different from the reference category. If the interval between the upper and lower bands does *not* include 1, the category is *significantly* different from the reference category. For example, the interval between the upper and lower confidence bands 0.88 and 3.98 includes the value of 1, but the interval between the confidence bands 1.33 and 3.10 does not.
- If a category is shown to be significantly different from the reference category, the odds ratio shows the increased (or reduced) likelihood of a particular outcome relative to the reference category. An odds ratio of greater than 1 indicates an increased likelihood of a particular outcome, e.g. a significant odds ratio of 3 indicates that people in that category are 3 times as likely as those in the reference category to have the selected to the outcome. A relatively reduced risk is expressed by a ratio lower than 1, for example, an

odds ratio of 0.2 indicates that those in that category have one fifth (20%) of the risk of those in the reference category.

While odds ratios give an approximate idea of the impact of each variable on mistreatment, the odds ratios shown in this report must be treated with caution because of the low number of mistreated cases (which results in wide confidence bands around the odds ratios). To take one example, while the odds ratio for privately rented accommodation compared with owner occupied accommodation is 4.18 (and significant at the 10% level), the lower confidence limit is 1.19 while the upper limit is 14.76, meaning that the actual odds ratio lies somewhere between these values (with 90% confidence).

Significance

In this report 90% significance intervals are used, rather than the conventional 95% level, because the low prevalence of mistreatment may result in too few cases to allow for many of the differences to be detected with a 5% level of significance. Using a 10% significance level does however increase the risk that some differences that are essentially due to sampling error are interpreted as real differences (Type I error).

1.6 Report structure

This report is split into three sections. Firstly, Chapter 2 focuses on different definitions of mistreatment (see Section 1.3 and Figure 1 for details), and includes the prevalence of mistreatment, the perpetrators associated with mistreatment and clustering of mistreatment (ie experience of more than one type of mistreatment).

Risk factors associated with mistreatment are analysed in Chapters 3. The full UK dataset is used to explore which key factors identified as significant in the main UKPS report are associated with mistreatment when multivariate analysis is used. This analysis of risk factors is extended to different types of mistreatment – psychological, financial and physical abuse and neglect – in Chapter 4.

Further analysis of additional risk factors is carried out in Chapter 5, but only for the sub-group of respondents from England, by merging the UKPS data with data from the 2005 HSE in order to expand the risk factors in the dataset. This chapter uses both bivariate and multivariate analyses.

Chapter 6 draws together the key findings from these analyses, exploring the implications for the definitions of mistreatment and associated risk factors and for future research.

1.7 Notes on conventions used in report tables

- The term “mistreatment” refers to all abuse and neglect.
- “Interpersonal abuse” refers to psychological, physical and sexual abuse combined.
- Some questions were filtered (i.e. asked of a sub-set of respondents). In some cases this results in small bases in some cells of the tables. Whenever an unweighted base is less than 30, the percentages in that column are marked by square brackets to show that results should be treated with caution.

- The population sub-group to whom each table refers is stated at the upper left corner of the table.
- All data in this report are weighted. Unweighted and weighted bases are shown at the foot of the table. The unweighted bases show the number of respondents who gave a valid answer to that question. A few respondents failed to answer each question. These “no answers” have been excluded from the analysis, so tables that describe the same population may have slightly different bases. The weighted bases show the relative sizes of the various sample elements after weighting, reflecting their proportion in the UK population, so that data from different columns can be combined in their correct proportions.
- Due to rounding, column percentages do not always sum to 100%.
- Some questions were multi-coded (i.e. allowed respondents to give more than one answer). The column percentages in these tables may sum to more than 100%.
- If a percentage is quoted in the text for a single category that aggregates two or more of the percentages shown in a table, the (more precise) percentage in the text has been recalculated and may differ from the sum of the percentages in the table.
- The following conventions have been used:
 - signifies a positive value of less than 0.05%
 - signifies a zero value
- Note that the terms ‘*factor*’ and ‘*variable*’ are used interchangeably to refer to variables within the survey data such as age, sex, marital status, general health status, etc.

2 Definitions of mistreatment

2.1 Introduction

The *baseline* definition of mistreatment includes incidents in the past year, covering all forms of abuse - physical, sexual, psychological and financial – and neglect, where the perpetrator is a family member, friend or care worker.

For this report, the definition of mistreatment was extended in a number of ways:

- Firstly, the definition of neglect and psychological abuse was extended to include *all* incidents of abuse, rather than cases involving 10 or more incidents or fewer than 10 very serious incidents in the case of neglect. This was not necessary for financial, physical or sexual abuse where a single incident was counted as abuse (see UKPS main report for details).¹
- Secondly, neighbours and acquaintances (the *outer circle*) were included as perpetrators, in addition to the *inner circle* of family, friends and care workers (See Section 1.4 for details of definitions). This applied to all five types of mistreatment.
- Finally, the time period was extended to look at financial, physical and sexual abuse since the age of 65 as well as in the past year. It was not possible to expand the definition in this way for neglect and psychological abuse as the UKPS only covered incidents in the past year for these types of mistreatment.

Three different definitions of mistreatment are explored in this chapter:

- '*baseline*' definition, which includes mistreatment by a family member, friend or care worker where neglect is based on 10 or more incidents (or fewer incidents, but with very serious consequences) and psychological abuse is based on 10 or more incidents.
- '*all incidents by family, friends and care workers*', i.e. including a single incident of neglect or psychological abuse.
- '*all incidents by all perpetrators*', which is the widest definition as it covers all incidents as defined above and extends perpetrators to also include neighbours or acquaintances.

The prevalence of different types of mistreatment, the proportion of mistreatment attributable to different perpetrators and the risk factors associated with mistreatment are explored for the different definitions used.

Finally, there is some analysis of 'clustering' of perpetrator type and of different types of mistreatment. This examines the degree to which older people experience mistreatment by more than one perpetrator type, or experience more than one type of mistreatment.

2.2 One year prevalence of mistreatment

Table 1 shows the one year prevalence of mistreatment for the three different definitions of mistreatment explored in this report, along with the 95% confidence intervals. *Baseline* mistreatment for *all* perpetrators is also included for comparison; the full table can be found in the main UKPS report (Table 6.4).

Table 1

One year prevalence of mistreatment

All UKPS

Type of mistreatment	<i>Baseline</i>		<i>All mistreatment</i>	
	<i>Baseline</i> mistreatment (95% CI) %	<i>Baseline</i> mistreatment, <i>all perpetrators</i> (95% CI) %	<i>All mistreatment</i> (95% CI) %	<i>All mistreatment</i> , <i>all perpetrators</i> (95% CI) %
Neglect	1.1 (0.6 - 1.8)	1.2 (0.7 - 2.0)	2.5 (1.8 - 3.6)	2.8 (2.0 - 4.0)
Financial	0.7 (0.3 - 1.3)	1.0 (0.6 - 1.8)	0.7 (0.3 - 1.3)	1.0 (0.6 - 1.8)
Psychological	0.4 (0.2 - 1.0)	0.7 (0.4 - 1.3)	1.8 (1.2 - 2.7)	4.1 (3.2 - 5.2)
Physical	0.4 (0.2 - 1.1)	0.7 (0.4 - 1.4)	0.4 (0.2 - 1.1)	0.7 (0.4 - 1.4)
Sexual	0.2 (0.0 - 1.1)	0.5 (0.2 - 1.2)	0.2 (0.0 - 1.1)	0.5 (0.2 - 1.2)
Mistreatment^a	2.6 (1.9 - 3.8)	4.0 (3.0 - 5.3)	5.3 (4.1 - 6.7)	8.6 (7.2 - 10.3)
<i>Bases unweighted^b</i>	2106	2106	2106	2106
<i>Bases weighted</i>	2106	2106	2106	2106

^a The definitions of mistreatment used are: *baseline* which includes cases with 10 or more incidents of neglect or psychological abuse (or fewer than 10 cases of neglect with very serious consequences) and *all mistreatment* which includes all incidents of neglect and psychological abuse. *Baseline* and *all mistreatment* are shown for inner circle perpetrators (family, friends and care workers) and for all perpetrators (which also includes neighbours and acquaintances).

^b Respondents could mention more than one type of mistreatment.

^c Bases vary slightly, bases shown here are for neglect.

With the baseline definition, 2.6% of respondents had experienced some form of mistreatment. Neglect was the most common form of mistreatment reported (1.1%), followed by financial abuse (0.7%).

When all incidents of mistreatment are added in for the same group of *inner circle* perpetrators, the prevalence increases to 5.3% when only one incident (instead of 10) is required: this is driven by increased prevalence of both neglect (to 2.5%) and psychological abuse (to 1.8%). When *all* incidents are included, psychological abuse is the second most common form of mistreatment, after neglect.

With the widest definition, prevalence of mistreatment in the past year is 8.6%, and the most common types of mistreatment are now psychological abuse (4.1%) followed by neglect (2.8%).

2.3 Perpetrator type

Table 2 shows the perpetrator type for mistreatment: *baseline* and *all* mistreatment by family, friends and care workers and *baseline* and *all* mistreatment, including neighbours and acquaintances. *Baseline* mistreatment by *all* perpetrators is included for comparison in Table 2.

Table 2

Relationship of perpetrator to respondent for different definitions of mistreatment^{a b}

All UKPS who experienced mistreatment in the past year

Type of mistreatment	<i>Baseline</i>			
	<i>Baseline</i>	<i>mistreatment, all</i>	<i>All mistreatment</i>	<i>All mistreatment,</i>
	<i>mistreatment</i>	<i>perpetrators</i>	<i>All mistreatment</i>	<i>all perpetrators</i>
	%	%	%	%
Partner	51	35	37	22
Other family	49	33	53	33
Close friend	5	3	11	6
Care worker	13	9	18	11
Neighbours and acquaintances	-	33	-	43
<i>Bases unweighted^c</i>	<i>52</i>	<i>85</i>	<i>103</i>	<i>173</i>
<i>Bases weighted</i>	<i>59</i>	<i>87</i>	<i>107</i>	<i>175</i>

^a *The definitions of mistreatment used are: baseline which includes cases with 10 or more incidents of neglect or psychological abuse (or fewer than 10 cases of neglect with very serious consequences) and all mistreatment which includes all incidents of neglect and psychological abuse. Baseline and all mistreatment are shown for inner circle perpetrators (family, friends and care workers) and for all perpetrators (which also includes neighbours and acquaintances).*

^b *Respondents could mention more than one type of mistreatment.*

^c *Bases vary slightly, bases shown here are for partner.*

Partners and other family members, rather than friends or care workers, were the main perpetrators of mistreatment when only the *inner circle* (family, friends and care workers) were considered. When *all* mistreatment was included family becomes the most common perpetrator type (53%).

Neighbours and acquaintances, when included, were found to be perpetrators of a high proportion of mistreatment (33% of *baseline* mistreatment and 43% of *all* mistreatment).

Relationship of perpetrator to respondent, for *baseline* mistreatment

Table 3 shows type of perpetrator for *baseline* mistreatment by a family member, friend or care worker (this table is a replicate of Table 4.1 in the main UKPS report).

Table 3

Relationship of perpetrator to respondent, by type of *baseline* mistreatment^a

All UKPS who experienced mistreatment in the past year

Relationship of perpetrator ^b	Type of mistreatment				<i>Baseline</i> mistreatment %
	Neglect	Financial	Interpersonal ^c	Abuse (excl. neglect)	
	%	%	%	%	
Partner	[70]	[13]	[57]	40	51
Other family	[58]	[54]	[37]	43	49
Close friend	[3]	[2]	[6]	5	5
Care worker	[14]	[31]	[-]	12	13
<i>Unweighted base^d</i>	<i>24</i>	<i>15</i>	<i>16</i>	<i>30</i>	<i>52</i>
<i>Weighted base^e</i>	<i>23</i>	<i>14</i>	<i>22</i>	<i>36</i>	<i>59</i>

^a *The baseline definition of mistreatment includes cases where 10 or more incidents of neglect or psychological abuse (or fewer than 10 with very serious consequences for neglect) by family, friends or care workers.*

^b *As respondents could give more than one answer, columns may total more than 100%.*

^c *Interpersonal abuse includes psychological, physical and sexual abuse.*

^d *Bases vary slightly, bases shown are for partner.*

^e *Weighting was used for summary categories (interpersonal abuse, abuse excluding neglect and mistreatment) to compensate for selection, ensuring that all perpetrators were represented if the respondent had experienced more than one form of mistreatment within a summary category (e.g. psychological and physical abuse).*

Around half of respondents who had experienced mistreatment reported that the perpetrator was a partner (51%) or other family member (49%). It is not possible to comment on individual forms of mistreatment due to the small base sizes.

Relationship of perpetrator to respondent, for *all* mistreatment and *all* perpetrators

Table 4 shows the relationship of perpetrator to respondent for a wider definition of mistreatment which includes *all* mistreatment by *all* perpetrators (ie *all* incidents of neglect and psychological abuse by a family member, friend, care worker, neighbour or acquaintance).

Table 4

Relationship of perpetrator to respondent, by type of *all* mistreatment, *all* perpetrators^a

All UKPS who experienced 'all mistreatment' in the past year

Relationship of perpetrator ^b	Type of mistreatment				
	All neglect ^f	Financial	All inter-personal ^c	All abuse (excl. neglect)	All mistreatment, <i>all</i> perpetrators
	%	%	%	%	%
Partner	42	[9]	12	11	22
Other family	47	[35]	27	28	33
Close friend	9	[1]	5	5	6
Care worker	18	[20]	3	6	11
Neighbours and acquaintances	12	[35]	57	54	43
<i>Bases unweighted^d</i>	57	24	107	124	173
<i>Bases weighted^e</i>	60	21	106	125	175

^a *Based on all mistreatment (all incidents of neglect or psychological abuse) by all perpetrators (family, friends, care workers, neighbours and acquaintances)*

^b *As respondents could give more than one answer, columns may total more than 100%.*

^c *Interpersonal abuse includes psychological, physical and sexual abuse.*

^d *Bases vary slightly, bases shown are for partner.*

^e *Weighting was used for summary categories (interpersonal abuse, abuse excluding neglect and mistreatment) to compensate for selection, ensuring that all perpetrators were represented if the respondent had experienced more than one form of mistreatment within a summary category (e.g. psychological and physical abuse).*

^f *Sum of percentages may be more than 100% as respondents may report mistreatment by more than one perpetrator.*

When *all* incidents and *all* perpetrators were included, mistreatment by neighbours or acquaintances was more prevalent (43%) than that by partners (22%) or other family members (33%).

Interpersonal abuse was now mainly associated with neighbours and acquaintances (57%), while neglect tended to involve partners (42%) or other family members (47%). Other family (35%) and neighbours and acquaintances (35%) were most likely to carry out financial abuse.

2.4 Clustering of perpetrators

Table 5 shows the number of perpetrator *types* reported by respondents who have experienced mistreatment in the past year for the three definitions of mistreatment. Five perpetrator type categories were used: partner, other family member, friend, care worker and neighbour or acquaintance.

Table 5

Clustering of perpetrator type^a

All UKPS who experienced mistreatment in the past year

Number of types of perpetrator reported	Baseline	All mistreatment ^b	All mistreatment ^b , all perpetrators
	mistreatment ^b %	All mistreatment ^b %	perpetrators %
1 perpetrator type	82	82	85
2 perpetrator types	18	18	15
3 perpetrator types	-	-	0
<i>Bases unweighted^p</i>	52	103	173
<i>Bases weighted</i>	55	107	175

^a Perpetrator types were partner, other family, friend, care worker and neighbour or acquaintance

^b Definitions of mistreatment used: baseline (including cases with 10 or more incidents of neglect or psychological abuse) by family, friends and care workers; all mistreatment (include all incidents of neglect and psychological abuse) by family, friends and care workers; and all mistreatment, all perpetrators (covers all incidents of neglect and psychological abuse and includes mistreatment by neighbours and acquaintances).

The majority of those who had experienced mistreatment in the past year reported only one perpetrator type, even when mistreatment by neighbours and acquaintances was included, and those with more than one perpetrator type tended to report only two.

2.5 Clustering of mistreatment

Table 6 shows the number of types of mistreatment experienced by respondents for the three definitions of mistreatment.

Table 6

Clustering of type of mistreatment^a

All UKPS who experienced mistreatment in the past year

Number of types of mistreatment reported	Baseline	All mistreatment	All mistreatment, by all perpetrators
	mistreatment %	All mistreatment %	perpetrators %
1 type	94	90	91
2 types	6	9	9
3 types	-	1	1
<i>Bases unweighted^p</i>	52	103	173
<i>Bases weighted</i>	55	107	175

^a Definitions of mistreatment used: baseline (including cases with 10 or more incidents of neglect or psychological abuse) by family, friends and care workers; all mistreatment (include all incidents of neglect and psychological abuse) by family, friends and care workers; and all mistreatment, all perpetrators (covers all incidents of neglect and psychological abuse and includes mistreatment by neighbours and acquaintances).

Among those who reported some form of mistreatment the majority (90% or over) had experienced only one form of mistreatment. When all incidents were included, around 9% of respondents reported experiencing more than one type of mistreatment. The proportion experiencing more than one type of mistreatment did not change when the range of perpetrators was extended to include neighbours and acquaintances, despite an overall increase in the prevalence of mistreatment (Table 1).

There were too few cases to look at which types of mistreatment clustered.

2.6 Prevalence of financial, physical and sexual abuse since the age of 65

As well as measuring prevalence of mistreatment in the past year, the UKPS also recorded financial, physical and sexual abuse since the age of 65. The overall prevalence rates for these types of abuse in the past year and since the age of 65 are shown in Table 7, along with 95% confidence intervals.

Table 7

Financial, physical and sexual abuse since age 65 and in the past year^a

Type of mistreatment	Past year, by family, friends and care workers (<i>baseline</i>) (95% CI) %	Since 65, by family, friends and care workers (95% CI) %	Since 65, by family, friends, care workers, neighbours and acquaintances (95% CI) %
Financial	0.7 (0.3 – 1.4)	1.2 (0.7 – 2.0)	1.7 (1.1 – 2.6)
Physical	0.4 (0.2 – 1.1)	0.8 (0.4 – 1.4)	1.4 (0.9 – 2.2)
Sexual	0.2 (0.0 – 1.1)	0.3 (0.1 – 1.0)	1.1 (0.6 – 1.9)
<i>Bases unweighted^b</i>	<i>2104</i>	<i>2104</i>	<i>2104</i>
<i>Bases weighted</i>	<i>2106</i>	<i>2106</i>	<i>2106</i>

^a Definitions used were based on financial, physical and sexual abuse in the past year and since 65 by inner circle perpetrators (family, friends and care workers) and on abuse since 65 by all perpetrators (including neighbours and acquaintances)

^b Bases vary, those shown are for financial abuse

The prevalence of abuse since age 65 was much higher for sexual and physical abuse when neighbours and acquaintances were included, but the difference was less marked for financial abuse.

3 Key risk factors associated with mistreatment

3.1 Factors associated with mistreatment by family, friends and care workers: bivariate analysis

The main UKPS report looked at factors associated with mistreatment (using the *baseline* definition). The following variables were significantly associated with mistreatment: sex, marital status, socio-economic position, tenure, general health, loneliness, depression and quality of life (see Chapter 3 for details).

Two additional variables associated with prevalence of mistreatment were use of regular medication and whether the respondent was an inpatient in the past year, as shown in Tables 8 and 9.

Table 8

Type of *baseline* mistreatment in the past year, by use of regular medication and sex

All UKPS

Type of mistreatment ^a	Use of regular medication		Total %
	No regular medication %	Take regular medication %	
Men			
Neglect	-	0.6	0.5
Financial	-	0.7	0.6
Interpersonal ^b	0.1	0.0	0.1
<i>Mistreatment</i> *	0.1	1.3	1.2
<i>Abuse exc. neglect</i> *	0.1	0.7	0.6
Women			
Neglect	-	1.8	1.5
Financial	-	0.8	0.7
Interpersonal ^b *	0.3	1.8	1.6
<i>Mistreatment</i> *	0.3	4.4	3.8
<i>Abuse exc. neglect</i> *	0.3	2.6	2.3
All			
Neglect	-	1.3	1.1
Financial	-	0.8	0.7
Interpersonal ^b *	0.2	1.0	0.9
<i>Mistreatment</i> *	0.2	3.1	2.6
<i>Abuse exc. neglect</i> *	0.2	1.8	1.6
<i>Bases unweighted</i>			
<i>Men</i>	154	820	975
<i>Women</i>	167	963	1131
<i>All</i>	321	1783	2106
<i>Bases weighted</i>			
<i>Men</i>	143	768	909
<i>Women</i>	174	1018	1197
<i>All</i>	317	1786	2106

^a *Mistreatment includes baseline mistreatment (10 or more incidents of psychological abuse and neglect, or neglect with very serious consequences) by family, friends or care workers.*

^b *Interpersonal abuse includes psychological, physical and sexual abuse.*

^c *Bases vary slightly, bases shown here are for neglect.*

** Significant at the 10% level*

Older people who took medication on a regular basis were more likely to have experienced mistreatment than other older people.

Table 9

Type of *baseline* mistreatment in the past year, by whether hospital inpatient and sex

All UKPS

Type of mistreatment ^a	Attended hospital as an inpatient in past 12 months			Total %
	Not been an hospital inpatient	Been an hospital inpatient		
	%	%		
Men				
Neglect *	0.2	1.9		0.5
Financial	0.5	0.9		0.6
Interpersonal ^b	0.0	0.2		0.1
Mistreatment *	0.8	3.0		1.2
Abuse exc. neglect	0.6	1.1		0.6
Women				
Neglect *	1.0	4.1		1.5
Financial	0.8	0.2		0.7
Interpersonal ^b	1.9	-		1.6
Mistreatment	3.7	4.3		3.8
Abuse exc. neglect *	2.7	0.2		2.3
All				
Neglect *	0.7	3.1		1.1
Financial	0.7	0.5		0.7
Interpersonal ^b *	1.1	0.1		0.9
Mistreatment	2.4	3.7		2.6
Abuse exc. neglect	1.8	0.6		1.6
<i>Bases unweighted^c</i>				
Men	806	169		975
Women	953	177		1131
All	1759	346		2106
<i>Bases weighted</i>				
Men	758	154		912
Women	1002	191		1194
All	1760	345		2106

^a Mistreatment includes baseline mistreatment (10 or more incidents of psychological abuse and neglect, or neglect with very serious consequences) by family, friends or care workers.

^b Interpersonal abuse includes psychological, physical and sexual abuse.

^c Bases vary slightly, bases shown here are for neglect.

* Significant at the 10% level.

Those who attended hospital as an inpatient in the past 12 months were more likely to have experienced neglect than those who had not: 3.1% of those who had reported an inpatient visit experienced neglect compared with 0.7% of those who had not.

Older people who had visited hospital as an inpatient within the past year were also more likely to have experienced interpersonal abuse (1.1%) than those who had not had an inpatient visit (0.1%).

There were no significant differences in prevalence of mistreatment between those who had visited a GP, practice nurse or outpatient clinic and those who had not (tables not shown).

3.2 Factors associated with baseline mistreatment: multivariate analysis

Introduction

In this section, multivariate logistic regression is used to examine the effect of each significant variable on mistreatment (using the *baseline* definition), while *controlling for* all the other variables.

All variables identified as significant in the bivariate analyses in the main UKPS report were included in the logistic regression. The outcome of the regression, the final model, shows which variables were found to be significantly associated with mistreatment once all other variables in the model were taken into account.

The dependent, or outcome, variable used in the model was the *baseline* definition of mistreatment, with each person having a value of 1 (experienced mistreatment) or 0 (no experience of mistreatment).

A brief explanation of multivariate analysis, including how to interpret the tables for logistic regression models, can be found in Section 1.4.2. Note that the odds ratios should be treated with caution as there are a relatively low number of mistreated cases, particularly where separate models are calculated for men and women. Also, the weighted base (N) for these tables differs from that for previous bivariate analyses due to exclusion of missing cases.

Factors associated with mistreatment: family, friends and care workers

The factors associated with the *baseline* measure of mistreatment once all other factors were taken into consideration are shown in Table 10.

The variables entered into the initial model were: sex, marital status, socio-economic position, depression, quality of life, taking regular medication, housing tenure, loneliness, general health status, long-term illness, use of care services and the use of lunch clubs or day centres.

Table 10

Baseline mistreatment^{a, b} in past year by family member, friend or care worker

All UKPS

Variable	Odds Ratio	N ^b	Standard Error	90% Confidence Interval
<i>Sex (p=0.007)</i>				
Male	1	896		
Female	3.08	1168	1.27	1.56,6.08
<i>Marital Status (p=0.002)</i>				
Living as a couple (married or cohabiting)	1	1147		
Single	0.79	105	0.77	0.16,3.96
Separated or divorced	2.61	158	1.33	1.13,6.02
Widowed	0.26	653	0.13	0.11,0.61
<i>Socio-Economic Classification (NS-SEC) (p=0.002)</i>				
Managerial and professional occupations	1	645		
Intermediate occupations	1.62	267	1.03	0.57,4.61
Small employers and own account workers	0.09	183	0.08	0.02,0.38
Lower supervisory and technical occupations	1.41	259	0.93	0.48,4.15
Semi-routine/routine occupations	2.41	642	1.21	1.06,5.51
Other	3.80	70	2.72	1.17,12.34
<i>CES-D depressive symptoms (p<0.001)</i>				
Below 3	1	1581		
3 or above	2.97	482	0.97	1.73,5.08
<i>Quality of life tertile (p=0.035)</i>				
Highest	1	669		
Middle	5.52	811	4.00	1.67,18.21
Lowest	5.72	584	3.85	1.89,17.31
<i>Regularly takes medicine (p=0.008)</i>				
No	1	312		
Yes	9.15	1750	7.65	2.31,36.25

^a Mistreatment includes baseline mistreatment (10 or more incidents of psychological abuse and neglect, or neglect with very serious consequences) by family, friends or care workers

^b Weighted bases: 55 mistreated cases from a total sample of 2064 respondents, using baseline definition, inner circle perpetrators.

In the final model, sex, marital status, socio-economic position, depression, quality of life and taking regular medication were all found to be significantly associated with mistreatment.

Variables that were associated with mistreatment in the bivariate analysis but are no longer significant when other factors are controlled for are tenure, loneliness, general health status, long-term illness, use of care services and the use of lunch clubs or day centres.

The final model shows that women were around three times more likely than men to experience some form of mistreatment by a family member, friend or care worker.

By entering marital status, it can be seen that widows were less likely to be mistreated than people living as a couple whereas separated or divorced people were about two and a half times more likely to be mistreated than couples.

Previous occupation also was significantly associated with mistreatment: those who were small employers or own account workers were about one tenth as likely to suffer mistreatment as those people who worked in managerial and professional occupations, while those who last worked in semi-routine or routine occupations were over twice as likely to be mistreated.

Mental health was also a salient risk factor, with those suffering from depression about three times more likely to have been mistreated than people not classified as depressed.

Quality of life was also a significant predictor, with those in the lowest or middle tertiles over five times more likely to suffer mistreatment than those in the highest tertile.

Taking regular medication results in odds of suffering mistreatment about nine times as high as for those who do not take medicine regularly.

Sex differences in factors associated with mistreatment: family, friends and care workers

The same models were run again separately for men and women. As Table 11 shows, some variables, such as marital status, were significantly associated with mistreatment but had different effects for men and women.

Some evidence of the interaction of sex with other factors is apparent in the main UKPS report, eg there is some evidence of an age-sex interaction (see Figure 3.1 in main UKPS report).

Table 11

Baseline mistreatment ^{a, b} in past year by family member, friend or care worker, split by sex

All UKPS

Variable	Males		Females	
	Odds Ratio	90% Confidence Interval	Odds Ratio	90% Confidence Interval
<i>Marital Status</i>				
Living as a couple (married or cohabiting)	1		1	
Single	0.08	0.01,0.53	0.99	0.17,5.84
Separated or divorced	0.21	0.03,1.51	3.35	1.29,8.68
Widowed	1.11	0.25,4.99	0.21	0.07,0.56
<i>Socio-Economic Classification (NS-SEC)</i>				
Managerial and professional	1		1	
Intermediate	-		1.73	0.55,5.5
Small employers and own account workers	0.11	0.02,0.85	0.09	0.01,0.6
Lower supervisory and technical	2.39	0.48,11.93	0.70	0.16,3.1
Semi-routine and routine	4.51	1.19,17.1	2.38	0.88,6.45
Other	-		3.98	1.16,13.64
<i>CES-D depressive symptoms</i>				
Below 3	1		1	
3 or above	2.74	0.95,7.87	3.21	1.7,6.05
<i>Quality of life tertile</i>				
Highest	1		1	
Middle	13.42	1.96,91.99	4.71	1.24,17.92
Lowest	27.63	4.69,162.64	4.03	1.19,13.65
<i>Regularly takes medicine</i>				
No	1		1	
Yes	4.95	0.8,30.71	10.67	1.82,62.36

^a Mistreatment includes baseline mistreatment (10 or more incidents of psychological abuse and neglect, or neglect with very serious consequences) by family, friends or care workers.

^b Weighted bases: 10 mistreated cases from a total sample of 896 male respondents; 45 mistreated cases from a total of 1168 female respondents, using baseline definition of mistreatment, inner circle perpetrators.

While marital status was significantly associated with the likelihood of mistreatment for both men and women, the effects were different. Single (that is, never married) men (but not single women) had lower odds of experiencing mistreatment than those who were living as a couple. Women (but not men) who were separated or divorced had a greater risk of mistreatment while those who were widowed had a relatively reduced risk.

All other variables in the models seemed to have similar effects for both men and women. Quality of life appeared to have higher odds for men than women, but this could simply be a consequence of the low number of cases of mistreated men.

Interactions between factors associated with mistreatment: family, friends and care workers

A number of other interactions were examined and found *not* to have a significant association with mistreatment: sex and loneliness, sex and regular involvement in group activities, sex and depression, sex and quality of life, sex and NS-SEC, general health and age, depression and age, general health and depression.

Other interactions were significant including: depression and quality of life, marital status and quality of life, marital status and depression. However, because of the small number of cases the estimates are not very precise and more cases would be needed in order to have more confidence in these findings.

3.3 Factors associated with all mistreatment: multivariate analysis

Factors associated with *all* mistreatment by family, friends and care workers

The same model was run to look at factors associated with *all* mistreatment (Table 12). In this model, NS-SEC was no longer significant and is dropped from the model. Otherwise, there was little change.

Table 12

All mistreatment^{a, b} in past year by family member, friend or care worker

All UKPS

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Sex (p=0.043)</i>				
Male	1	896		
Female	1.81	1168	0.53	1.12,2.94
<i>Marital Status (p=0.005)</i>				
Living as a couple (married or cohabiting)	1	1147		
Single	0.66	105	0.52	0.18,2.4
Separated or divorced	3.01	158	1.18	1.58,5.76
Widowed	0.70	653	0.22	0.41,1.18
<i>CES-D depressive symptoms (p=0.003)</i>				
Below 3	1	1581		
3 or above	2.28	482	0.63	1.45,3.58
<i>Quality of life tertile (p=0.004)</i>				
Highest	1	669		
Middle	7.66	811	4.78	2.74,21.39
Lowest	8.31	584	5.37	2.87,24.09
<i>Regularly takes medicine (p=0.038)</i>				
No	1	312		
Yes	3.09	1750	1.68	1.06,8.96

^a All mistreatment includes all incidents of neglect or psychological abuse (rather than 10 or more). Perpetrators included in Table 12 are family, friends or care workers.

^b Weighted bases: 107 mistreated cases from a total of 2013 cases, based on all mistreatment by inner circle perpetrators.

Factors associated with *all* mistreatment by family, friends, care workers, neighbours and acquaintances

The same variables were then included in a model looking at *all* mistreatment by *all* perpetrators (Table 13). In this model, sex was no longer a significant predictor of overall mistreatment.

Table 13

All mistreatment^{a, b} in past year by family member, friend, care worker, neighbour or acquaintance

All UKPS

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Marital Status (p=0.013)</i>				
Living as a couple (married or cohabiting)	1	1147		
Single	1.07	105	0.54	0.46,2.47
Separated or divorced	3.07	158	1.05	1.74,5.4
Widowed	1.16	653	0.27	0.79,1.69
<i>CES-D depressive symptoms (p=0.001)</i>				
Below 3	1	1581		
3 or above	2.08	482	0.47	1.43,3.03
<i>Quality of life tertile (p=0.060)</i>				
Highest	1	669		
Middle	2.00	811	0.64	1.18,3.4
Lowest	2.17	584	0.74	1.24,3.8
<i>Regularly takes medicine (p=0.029)</i>				
No	1	312		
Yes	2.23	1750	0.82	1.22,4.09

^a The definition of mistreatment used includes all incidents of neglect or psychological abuse (rather than 10 or more) by all perpetrators (family, friends, care workers, neighbours and acquaintances).

^b Weighted bases: 174 mistreated cases from a total of 2014 cases, based on all mistreatment by all perpetrators..

Summary of factors associated with different definitions of mistreatment.

Factors associated with mistreatment are summarised in Table 14, which shows the odds ratios for factors associated with different definitions of mistreatment.

Table 14

Factors associated with mistreatment^a

All UKPS

Variable	Baseline mistreatment, family, friends, care workers	All mistreatment, family, friends, care workers	All mistreatment, all perpetrators
<i>Sex</i>			
Male	1	1	-
Female	* 3.08	* 1.81	-
<i>Marital Status</i>			
Living as a couple (married or cohabiting)	1	1	1
Single	0.79	0.66	1.07
Separated or divorced	* 2.61	* 3.01	* 3.07
Widowed	* 0.26	0.70	1.16
<i>Socio-Economic Classification (NS-SEC)</i>			
Managerial and professional occupations	1	-	-
Intermediate occupations	1.62	-	-
Small employers and own account workers	* 0.09	-	-
Lower supervisory and technical occupations	1.41	-	-
Semi-routine/routine occupations	* 2.41	-	-
Other	* 3.80	-	-
<i>CES-D depressive symptoms</i>			
Below 3	1	1	1
3 or above	* 2.97	* 2.28	* 2.08
<i>Quality of life tertile</i>			
Highest	1	1	1
Middle	* 5.52	* 7.66	* 2.00
Lowest	* 5.72	* 8.31	* 2.17
<i>Regularly takes medicine</i>			
No	1	1	1
Yes	* 9.15	* 3.09	* 2.23

^a The definitions of mistreatment used were baseline (10 or more incidents of psychological abuse and neglect, or fewer than 10 incidents of neglect with very serious consequences) and all incidents (including all incidents of psychological abuse and neglect). Incidents were for inner circle perpetrators (family, friends, care workers) or all perpetrators (including neighbours and acquaintances).

^b Weighted bases: 55 mistreated cases / 2064 cases for baseline mistreatment; 107 mistreated cases / 2013 cases for 'all' mistreatment by inner circle perpetrators and 174 mistreated cases / 2014 cases for 'all' mistreatment by all perpetrators.

*Indicates significant odds ratio

Four risk factors are common to the three definitions of mistreatment used: marital status, CES-D depressive index, quality of life and regular use of medication. Socioeconomic status is significant only for the baseline definition and sex is significant for *baseline* and *all* definitions for the *inner circle* of perpetrators, but not when *all* mistreatment by neighbours and acquaintances is included.

It is difficult to interpret the findings as the larger number of mistreated adults with the wider definition may lead to more robust estimates (ie tighter confidence intervals) or to a less homogenous group of mistreated cases with fewer risk variables in common. Although quality of

life and regular use of medication appear to have a weaker association when wider definitions of mistreatment are used, the confidence intervals are fairly wide and rule out the possibility of a significant difference in association across the different definitions (see Tables 10, 12 and 13 for 90% confidence intervals).

4 Key risk factors associated with different types of mistreatment: neglect, financial, psychological and physical abuse

4.1 Factors associated with neglect

Factors associated with *baseline* neglect by family, friends and care workers

Table 15 shows the factors associated with neglect by a family member, friend or care worker.

Factors entered into the initial model were: country, age, ns-sec, quality of life, visits to a lunch club or day centre, use of care services, general health, regular contact with friends and family, sex and depression. These factors were found to be significantly associated with neglect in the bivariate analysis in the main UKPS report.

The initial model differed from that for mistreatment (Tables 10-14) as it included only those variables significantly associated with *neglect* in bivariate analyses (see main UKPS report¹). Long-term illness was excluded from this model as all those who experienced neglect using the *baseline* definition had a long term or a limiting long term illness. (This suggests that long term illness is significantly associated with neglect but the association cannot be tested using logistic regression.)

Table 15

Baseline neglect^{a, b} in past year by family member, friend or care worker

All UKPS

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Socio-Economic Classification (NS-SEC)</i>				
<i>(p=0.047)</i>				
Managerial and professional	1	645		
Intermediate	4.63	267	4.44	0.96,22.41
Small employers and own account workers	0.31	183	0.38	0.04,2.32
Lower supervisory and technical	1.73	259	1.63	0.36,8.16
Semi-routine and routine	4.30	642	3.40	1.17,15.82
Other	7.00	70	7.38	1.23, 39.70
<i>Quality of life tertile (p=0.039)</i>				
Highest	1	669		
Middle	14.40	811	15.50	2.45,84.62
Lowest	15.13	584	17.00	2.38,96.13
<i>Visits lunch club/day centre (p=0.031)</i>				
No	1	1934		
Yes	4.32	130	2.92	1.42,13.16
<i>General health (p=0.045)</i>				
Good/very good	1	1260		
Fair	1.65	631	1.17	0.51,5.29
Bad/very bad	5.88	172	4.44	1.7,20.35

^a The baseline definition of neglect includes cases with 10 or more incidents, or fewer incidents with very serious consequences.

^b Weighted bases: a total of 2064 cases, of which 23 had experienced baseline neglect.

Factors associated with neglect were:

- Socioeconomic status: Those who had previously been employed in a semi-routine or routine occupation were more likely to experience neglect than those previously employed in managerial or professional occupations.
- Quality of life: Those in the middle and lowest tertiles were more likely to experience neglect than people with the highest quality of life.
- General health: Those with very bad or bad general health were more likely to experience neglect.
- Visits centre: Older people who visited a lunch club or day centre had a higher likelihood of experiencing neglect than those who did not.

Country, age, sex, depression, regular social contact and the use of care services were *not* significant in the logistic regression, although they were significant in the bivariate analysis in the main report.

Factors associated with *all* neglect

The same model was run for the definition which included *all* incidents of neglect in the past year, with the inclusion of long-term illness.

In this model, general health was no longer a significant predictor but long-term illness was: the two variables are closely related and general health became insignificant when long-term illness was added to the model. Socio-economic position was no longer significant.

Depression was significant, with those suffering from depression being two times more likely to experience neglect.

When the same model was run again covering *all* incidents of neglect carried out by neighbours and acquaintances as well as family, friends and care workers, the same factors were found to be significant.

Summary of factors associated with different definitions of neglect

Table 16 shows the factors associated with different definitions of neglect: *baseline* and *all* neglect by family, friends and care workers, and *all* neglect by *all* perpetrators. Confidence intervals are not shown but significant odds ratios are highlighted (*).

Table 16

Neglect^{a, b} in past year by family member, friend or care worker

All UKPS

Neglect Variable	Baseline neglect, by family, friends and care workers Odds Ratio	All neglect, by family, friends and care workers Odds Ratio	All neglect, by all perpetrators Odds Ratio
<i>Socio-Economic Classification (NS-SEC)</i>			
Managerial and professional	1	-	-
Intermediate	4.63	-	-
Small employers and own account workers	0.31	-	-
Lower supervisory and technical	1.73	-	-
Semi-routine and routine	* 4.30	-	-
Other			
<i>Quality of life tertile</i>			
Highest	1	1	1
Middle	* 14.40	* 32.82	* 32.72
Lowest	* 15.13	* 30.33	* 33.35
<i>Visits lunch club/day centre</i>			
No	1	1	1
Yes	* 4.32	* 4.42	* 3.78
<i>General health</i>			
Good/very good	1	-	-
Fair	1.65	-	-
Bad/very bad	* 5.88	-	-
<i>CES-D depressive symptoms</i>			
Below 3	-	1	1
3 or above	-	* 2.20	2.53
<i>Long-term illness</i>			
No long-term illness	-	1	1
Non-limiting	-	0.76	0.77
Limiting	-	* 3.41	* 3.71

^a The baseline definition of neglect includes cases with 10 or more incidents, or fewer incidents with very serious consequences while the all neglect includes all incidents of neglect. Perpetrators are family, friends and care workers, or all perpetrators (includes neighbours and acquaintances).

^b Weighted bases: 23 cases / 2064 of neglect for baseline; 54 cases / 2064 for all neglect by inner circle perpetrators; and 60 cases / 2064 for all neglect by all perpetrators.

* indicates significant odds ratio

Overall, there were a number of factors associated with neglect regardless of the definition used. Older people who did not have a high quality of life were more likely to have experienced neglect, as were those who visited a lunch club or day centre.

Socioeconomic status and general health were significantly associated with neglect by family friends and care workers when neglect was based on multiple or very serious incidents. However, these factors were not significant when a wider definition of neglect was used.

Long term illness was significantly associated neglect: this was apparent from the models of all neglect (Table 16) and the observation that all those who experienced *baseline* neglect had a long

term illness (Table 15). General health was no longer significant as long term illness was now included. It is likely that limiting long term illness was also associated with neglect based on multiple incidents as all who reported multiple incidents or very serious consequences had a long term illness. This was difficult to test statistically.

Depression was also associated with *all* neglect: those with depressive symptoms were around 2 times more likely to experience *all* neglect than those with no depressive symptoms. Depression was found to be a significant predictor of neglect in bivariate analyses (see Table 3.13, main UKPS report)¹ and may have entered the logistic regression model for *all* neglect as there were more cases to analyse.

4.2 Factors associated with psychological abuse

Factors associated with *baseline* psychological abuse

With the *baseline* definition of 10 or more incidents of psychological abuse, there were too few cases to carry out a multivariate analysis. There were sufficient cases for the other two definitions however.

Factors associated with *all* psychological abuse

Factors associated with *all* psychological abuse, where psychological abuse was recorded if a respondent reported one or more incident are shown in Table 17.

Table 17

All psychological abuse^{a, b} by family member, friend or care worker

All UKPS

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Uses care services (p=0.002)^c</i>				
No	1	1645		
Yes	0.25	419	0.11	0.12,0.52
<i>Long-term Illness (p=0.053)</i>				
No long-term illness	1	658		
Non-limiting	1.23	493	0.92	0.35,4.24
Limiting	3.19	913	1.89	1.21,8.44
<i>Quality of life tertile (p=0.074)</i>				
Highest	1	669		
Middle	3.11	811	2.25	0.95,10.21
Lowest	4.66	584	3.22	1.49,14.51
<i>Visits lunch club/day centre (p<0.001)</i>				
No	1	1934		
Yes	0.03	130	0.03	0.01,0.16

^a All psychological abuse includes all incidents of psychological abuse (not just cases with 10 or more incidents)

^b Weighted bases: 38 cases of 'all' psychological abuse by inner circle perpetrators

^c Care services include home help, home care worker, meals on wheels, social worker, or helper from a voluntary organisation

- Older people who used care services, such as home help, home care worker, meals on wheels, social worker, or helper from a voluntary organisation, were less likely to

experience psychological abuse, having about a quarter of the risk of those who did not use care services.

- Those with a limiting long term illness were over 3 times more likely to experience psychological abuse than those with no illness; there was no effect of non-limiting long term illness.
- Those with a low quality of life were more likely to experience psychological abuse than those with a high quality of life.
- Older people who visited a lunch club or day centre were *less* likely to experience psychological abuse than those who did not. This differs from that for neglect, where use of a lunch club or day centre was associated with an increased likelihood of neglect.

When *all* psychological abuse, including that by neighbours and acquaintances, was used as the dependent variable the significant factors identified were quite different from those for the model which excluded neighbours and acquaintances.

Table 18

Factors associated with psychological abuse by family member, friend, care worker, neighbours or acquaintances

All UKPS

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Quality of life tertile (p=0.074)</i>				
Highest	1	669		
Middle	1.75	811	0.67	0.93,3.29
Lowest	2.72	584	1.12	1.38,5.35
<i>Highest educational qualification</i>				
Degree, equivalent or higher	1	175		
Intermediate	0.45	835	0.18	0.23,0.88
No qualifications	0.34	1053	0.14	0.18,0.65
<i>Age</i>				
66-74	1	1051		
75-84	1.10	831	0.31	0.69,1.74
85 and over	0.10	182	0.06	0.04,0.27

^a*All psychological abuse includes all incidents of psychological abuse (not just cases with 10 or more incidents). Perpetrators include neighbours and acquaintances.*

^b*Weighted bases: 84 cases of 'all' psychological abuse by 'all' perpetrators, from total of 2064 respondents*

Different factors were associated with *all* psychological abuse when neighbours and acquaintances were included as perpetrators. While quality of life was still significant, limiting long term illness, use of lunch club or day centre and use of care services were no longer significant variables. Instead, age and educational level of respondents became significant:

- Those with higher education qualifications were more likely to experience *all* psychological abuse.
- Compared with those aged 66-74, adults aged 85 and over had only one tenth of the risk of *all* psychological abuse.

Tables 17 and 18 show somewhat different risk factors with the first relating health and social issues the second socio-demographic factors, which suggests a different underlying *all* psychological abuse by *inner circle* perpetrators and by *all* perpetrators.

4.3 Factors associated with financial abuse

Factors associated with financial abuse in the past year

There were too few cases of financial abuse in the past year to carry out a multivariate analysis, the logistic regression was only carried out for abuse since age 65.

Factors associated with financial abuse since the age of 65

Factors associated with financial abuse since the age of 65 are shown in Table 19 for family, friends and care workers and in Table 20 when neighbours and acquaintances are also included.

Table 19

Financial abuse^{a,b}, since 65, by family member, friend or care worker

All UKPS

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Uses care services^a (p=0.080)</i>				
No	1	1645		
Yes	2.76	419	1.60	1.06,7.15
<i>Quality of life tertile (p=0.085)</i>				
Highest	1	669		
Middle	1.66	811	1.77	0.28,9.63
Lowest	4.37	584	3.94	0.99,19.26
<i>Whether felt lonely much of the time in the past week (p<0.001)</i>				
No	1	1807		
Yes	6.63	257	3.32	2.91,15.13

^a Care services include home help, home care worker, meals on wheels, social worker, or helper from a voluntary organisation

^b Weighted bases: 25 cases of financial abuse since 65 by inner circle perpetrators, from a total of 2064 cases

Use of care services, loneliness and quality of life were associated with financial abuse, since 65:

- Those who used care services were more likely to experience financial abuse
- The overall association of quality of life was significant, with apparent higher risk associated with lower quality of life, but no one category was significant.
- Those who felt lonely in the past week were more likely to have experienced financial abuse.

It is difficult to interpret the impact of loneliness in the past week on financial abuse since 65, though loneliness over a relatively short time period covered by the survey question may reflect loneliness over a longer period.

Table 20

Financial abuse^{a, b}, since 65, by family member, friend, care worker, neighbour or acquaintance

All UKPS

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Uses care services^a (p=0.033)</i>				
No	1	1645		
Yes	2.74	419	1.29	1.26,5.94
<i>Whether felt lonely much of the time in the past week (p=0.027)</i>				
No	1	1807		
Yes	3.18	257	1.66	1.34,7.52
<i>Marital status (p=0.154)</i>				
Living as a couple (married or cohabiting)	1	1147		
Single	4.24	105	2.79	1.43,12.53
Separated or divorced	2.99	158	2.87	0.61,14.54
Widowed	2.75	653	1.67	1.01,7.47
<i>Tenure (p=0.051)</i>				
Owner occupied	1	1585		
Rented – social	2.88	373	1.41	1.29,6.43
Rented – private	5.69	56	6.60	0.85,38.3
Lives rent free	0.64	49	0.52	0.17,2.45
<i>Regular social contact with friends and family (p=0.018)</i>				
No	1	90		
Yes	11.50	1974	11.89	2.1,62.99
<i>Quality of life tertile (p=0.059)</i>				
Highest	1	669		
Middle	0.36	811	0.25	0.12,1.11
Lowest	1.24	584	0.75	0.46,3.36

^a Care services include home help, home care worker, meals on wheels, social worker, or helper from a voluntary organisation

^b Weighted bases: 36 cases of financial abuse since 65 by 'all' perpetrators, from a total of 2064 cases

A greater range of factors were associated with financial abuse since the age of 65 when neighbours or acquaintances are also included as perpetrators, including:

- Marital status was significant, with single and widowed respondents being more likely to experience financial abuse than those living as a couple.
- Regular social contact with friends and family apparently increased the likelihood of financial abuse.
- Those in social rented accommodation also had an increased likelihood of abuse compared with owner occupiers.

4.4 Factors associated with physical abuse

Factors associated with physical abuse in the past year

There were too few cases to analyse physical abuse in the past year using a logistic regression model.

Factors associated with physical abuse since 65

The widest definition of physical abuse was used to provide enough cases for logistic regression analysis. Table 21 shows physical abuse since 65 by *all* perpetrators: the number of cases of physical abuse is still relatively low but they allow a tentative model of factors associated with physical abuse.

Table 21 shows factors associated with physical abuse for this perpetrator group.

Table 21

Physical abuse^{a, b} since 65, by family member, friend, care worker, neighbour or acquaintance

All UKPS

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Uses care services^c (p=0.022)</i>				
No	1	1645		
Yes	3.43	419	1.85	1.42,8.32
<i>Whether felt lonely much of the time in the past week (p=0.007)</i>				
No	1	1807		
Yes	5.39	257	3.36	1.93,15.04
<i>Marital status (p=0.002)</i>				
Living as a couple (married or cohabiting)	1	1147		
Single	-	105	-	
Separated or divorced	4.22	158	2.69	1.47,12.07
Widowed	0.39	653	0.29	0.11,1.34
<i>Socio-Economic Classification (NS-SEC) (p<0.001)</i>				
Managerial and professional	1	645		
Intermediate	2.90	267	2.24	0.81,10.33
Small employers and own account workers	0.09	183	0.10	0.01,0.6
Lower supervisory and technical	1.13	259	1.00	0.26,4.88
Semi-routine and routine	3.03	642	2.08	0.98,9.36
<i>Regular involvement in group activities (p=0.012)</i>				
No	1	819		
Yes	3.86	1245	2.06	1.6,9.29

^a Physical abuse includes all incidents of physical abuse since the age of 65, by all perpetrators.

^b Weighted bases: 28 cases of physical abuse by all perpetrators, from a total of 2064 cases.

^c Care services include home help, home care worker, meals on wheels, social worker, or helper from a voluntary organisation

Use of care services and regular social contact, in this case involvement in group activities such as sports and hobby clubs, social clubs, political and religious groups, were associated with an increased risk of physical abuse.

- Loneliness in the past week was also associated with a higher likelihood of physical abuse (as it did with financial abuse).
- Marital status was significant, with older people who were separated and divorced being more likely than those living as a couple to have experienced physical abuse since 65.
- Finally, there was some impact of socioeconomic status: small employers and own account workers were less likely to have experienced physical abuse than the managerial or professional reference group.

4.5 Summary of factors associated with different types of mistreatment

Table 22 shows a summary of the factors associated with different types of mistreatment. This highlights the significant risk factors identified in the individual models (Tables 15 to 21) and allows some broad comparison of risk factors for different forms of mistreatment.

It should be noted that the definitions used vary depending on the type of mistreatment, in terms of the incidents included (10 or more incidents of neglect for *baseline* neglect or all incidents for *all* neglect) and the time period examined (the time period was expanded to include financial and physical abuse since the age of 65). The definitions were expanded to allow some, albeit tentative, models of factors associated with mistreatment.

Table 22

Factors associated with different types of mistreatment ^a

All UKPS

Time period	One year prevalence					Since 65 years		
Variable	Neglect			Psychological abuse		Financial abuse		Physical abuse
	<i>Baseline neglect</i>	<i>All neglect</i>	<i>All neglect, all perps</i>	<i>All psychol</i>	<i>All psychol, all perps</i>	Financial since 65	Financial since 65, all perps	Physical since 65, all perps
Socio-Economic Classification (NS-SEC)	√	-	-	-	-	-	-	√
Quality of life tertile	√	√	√	√	√	√	√	-
Visits lunch club/day centre	√	√	√	√	-	-	-	-
General Health	√	-	-	-	-	-	-	-
CES-D depressive symptoms	-	√	√	-	-	-	-	-
Long term illness	-	√	√	√	-	-	-	-
Use of care services ^b	-	-	-	√	-	√	√	√
Highest educational qualification	-	-	-	-	√	-	-	-
Age	-	-	-	-	√	-	-	-
Loneliness in past week	-	-	-	-	-	√	√	√
Marital status	-	-	-	-	-	-	√	√
Tenure	-	-	-	-	-	-	√	-
Regular social contact with friends and family ^c	-	-	-	-	-	-	√	-
Regular involvement in group activities	-	-	-	-	-	-	-	√

^a Different forms of mistreatment examined in separate models, using different definitions (see Figure 1 for illustration of definitions)

^b Care services include home help, home care worker, meals on wheels, social worker, or helper from a voluntary organisation

^c Regular social contact could not be included in the regression model because there were no cases of neglect and psychological abuse who did not have regular social contact with friends and family.

Problems with physical or mental health were risk factors:

- *baseline neglect* was associated with bad or very bad general health
- *all neglect* and *all psychological abuse* associated with long term illness

- depressive symptoms were also associated with an increased risk of *all* neglect.

Quality of life appeared to be a key risk factor:

- Quality of life was common to neglect, psychological abuse and financial abuse, with lower quality of life generally associated with a higher risk of mistreatment.

Social contact was also pertinent:

- Visiting a lunch club or day centre was associated with neglect and psychological abuse but in different ways: those who visited a lunch club or day centre were *more* likely to experience neglect but *less* likely to experience psychological abuse.
- Use of care services such as a home help, meals on wheels or a helper from a voluntary organisation, was associated with an increased risk of *all* psychological abuse by family, friends and care workers, and an increased risk of financial and physical abuse.
- Regular social contact with friends and family was associated with an increased likelihood of financial abuse by *all* perpetrators. (This could not be tested for neglect because there were no cases of neglect who did not have regular social contact with friends and family.)
- Regular involvement in group activities was also found to be associated with increased likelihood of physical abuse.
- Loneliness in the past week was also associated with increased likelihood of experiencing financial abuse and physical abuse since the age of 65.

Demographic factors had a tentative association with different forms of mistreatment, but there was no one factor that had a strong association with more than one form. For example:

- Socioeconomic classification was associated with neglect and physical abuse. Those in the semi-routine and routine category had over four times the risk of *baseline* neglect by family, friends and care workers, compared with managerial and professional categories. Small employers and own account workers had a relatively reduced risk of physical abuse since 65 by *all* perpetrators.
- Marital status was associated with financial and physical abuse since 65. Single and widowed older people were at greater risk of financial abuse than those living as a couple. Separated and divorced older people were at greater risk of physical abuse than those living as a couple.

5 Additional factors associated with mistreatment (England only)

5.1 Introduction

Because UKPS respondents were follow-up samples taken from other surveys (see main UKPS report for details)¹ it was possible to merge the variables collected on the earlier survey (2005 HSE) for respondents living in England.³⁸ This enables a more wide-ranging analysis, e.g. when looking at risk factors associated with mistreatment, for the respondents living in England. Key characteristics of the England only UKPS sample are described in Appendix A.

As there were only 1047 UKPS respondents living in England, the smaller sample size restricts the analysis that can be carried out and increases the confidence intervals for the results presented. Also, because of the smaller sample size, it was not possible to carry out any analysis separately for men and women.

When looking at the results in this chapter, it must also be kept in mind that the HSE was carried out up to one year before the UKPS, so the measures are not necessarily contemporaneous. This means people reporting particular problems at the time of the HSE may no longer have been suffering from the problem by the time of the UKPS interview; and the contrary also may apply, as respondents without a particular problem at HSE may have developed problems during the period between the two interviews.

Chapter 5 includes bivariate analyses to look at individual factors in isolation as well as multivariate analyses to explore the impact of key factors when other variables are taken into account.

5.2 Prevalence of mistreatment in England

The overall prevalence of mistreatment in England was comparable with that for the UK. In England, as in the UK as a whole, 2.6% of respondents had experienced mistreatment in the past year, by a family member, friend or care worker, while 3.9% of respondents in England and 4.0% of those in the UK had experienced mistreatment by a family member, friend, care workers, neighbour or acquaintance. Although the overall prevalence of mistreatment was similar in England and the UK there are some differences in the prevalence of individual types of mistreatment (see Appendix A and Tables 3.2 and 6.7 in main UKPS report).¹

5.3 Other factors associated with mistreatment: bivariate analysis (England)

Introduction

Data from the 2005 HSE were used to extend the analysis of factors associated with mistreatment and included: demographic variables, such as income; health variables such as body mass index (BMI), mobility problems, bladder problems; and social factors, such as contact with friends and family, social capital and views of the local neighbourhood. Some of these variables were perceived as likely risk factors, given their apparent 'similarity' to factors identified by earlier analysis of UKPS data whilst others were selected for more exploratory reasons, helping to develop a fuller picture of the nature of mistreatment. For example, mobility and bladder problems may be viewed as specific general health issues or long term conditions, while fruit and vegetable

consumption may provide a dietary indicator. It should be noted that the associations revealed by logistic regression do not necessarily indicate a causal relationship. The tables shown below are for variables found to have a significant association with mistreatment.

The variables found to be associated with mistreatment in the bivariate analysis were:

- mobility problems
- number of falls
- health problems (EQ-5D score)
- bladder problems
- haematological status
- wellbeing (GHQ12 score)
- depressive symptoms (GDS10 score)
- views of local neighbourhood.

These are shown in Tables 23 to 31.

The following factors were *not* significantly associated with any form of mistreatment:

- equivalised household income
- perceived social support
- contact with friends
- contact with family
- levels of trust in people in general
- participation in organised associations
- ease of access to local amenities
- being overweight
- being obese
- fruit and vegetable consumption
- level of alcohol consumption

Mistreatment and mobility problems

HSE respondents aged 65 and over were asked if they were able to walk a quarter of a mile by themselves, without any equipment. Responses were recorded in terms of having no difficulty, having some difficulty, much difficulty, or being unable to do it.

Table 23 shows type of *baseline* mistreatment in the past year, by presence and severity of mobility problems.

Table 23

Type of *baseline* mistreatment^a in the past year, by presence and severity of mobility problems (*England only*)

England only

Type of mistreatment	Presence of mobility problem ^d		Severity of mobility problem (for those with a mobility problem) ^d			Total	
	No mobility problem	Mobility problem	Some difficulty	Much difficulty	Unable to do this	Total	
	%	%	%	%	%		%
All							
Neglect *	* -	2.4	* 1.2	2.5	3.9		1.0
Financial	0.3	1.0	-	1.7	1.9		0.6
Interpersonal ^b	0.6	1.4	1.3	2.3	1.2		1.0
Mistreatment *	* 0.9	4.9	* 2.4	6.6	7.1		2.6
Abuse exc. neglect	0.9	2.4	1.3	4.0	3.1		1.6
<i>Bases unweighted^c</i>	<i>627</i>	<i>419</i>	<i>192</i>	<i>82</i>	<i>145</i>		<i>1046</i>
<i>Bases weighted</i>	<i>1025</i>	<i>732</i>	<i>324</i>	<i>139</i>	<i>269</i>		<i>1757</i>

^a Baseline mistreatment includes cases with 10 or more incidents of psychological abuse and neglect (or fewer than 10 cases of neglect with very serious consequences). Perpetrators are family, friends and care workers.

^b Interpersonal abuse includes psychological, physical and sexual abuse.

^c Bases vary slightly, bases shown here are for neglect.

^d Respondents were classified as having a mobility problem if they reported any difficulty walking a quarter of a mile by themselves without equipment.

* Significant at the 10% level.

There was a significant difference between people who had mobility problems and those who had not: 0.9% of those with no mobility problems reported a form of mistreatment compared with 4.9% of those with a mobility problem (Table 23). All respondents who reported neglect had mobility problems.

Severity of mobility problems had a significant impact on the prevalence of mistreatment: mistreatment ranged from 0.9% of those who had no mobility problems to 7.1% of those who were unable to walk a quarter of a mile without equipment.

Mistreatment and falls

HSE respondents were asked whether they had fallen down in the last 12 months and, if they had, they were asked how many times they had fallen. Table 24 shows the prevalence and number of falls in the past 12 months.

Table 24

Type of *baseline* mistreatment in the past year, by prevalence and number of falls (*England only*)

England only

Type of mistreatment ^c	Number of falls			Total
	No falls	1 or 2 falls	3 or more falls	
	%	%	%	%
All				
Neglect	1.2	0.4	-	1.0
Financial *	-	2.3	3.8	0.6
Interpersonal ^a *	0.6	0.9	6.0	1.0

<i>Mistreatment</i> *	1.9	3.6	9.8	2.6
<i>Abuse exc. neglect</i> *	0.6	3.2	9.8	1.6
<i>Bases unweighted</i> ^b	800	196	48	1046
<i>Bases weighted</i>	1340	328	86	1757

^a *Interpersonal abuse includes psychological, physical and sexual abuse.*

^b *Bases vary slightly, bases shown here are for neglect.*

^c *The baseline definition of mistreatment includes cases with 10 or more incidents of psychological abuse or neglect, or fewer than 10 cases of neglect with a very serious consequence. Perpetrators are family, friends and care workers.*

* *Significant at the 10% level.*

Older people who had fallen at least once in the past 12 months were more likely to have experienced some form of mistreatment than those who had not fallen. The prevalence of mistreatment increased from 1.9% of those who had not had a fall to 9.8% of those who had three or more falls.

The increased prevalence with falls was apparent for interpersonal abuse, which ranged from 0.6% of those who had not had a fall to 6.0% of those who had three or more falls, and for financial abuse which was not reported by respondents who had not fallen, but was reported by 3.8% of those who had three or more falls. Experiencing neglect was not associated with having had a fall.

Mistreatment and self-reported health

HSE respondents completed the EQ-5D questionnaire, which is a standardised instrument used as a measure of health problems (see Chapter 4 of the HSE 2005 report, Volume 4)². It consists of five questions in which respondents rate the severity of their problems, if any, in mobility, self-care, usual activities, pain or discomfort and anxiety or depression.

Table 25 shows mistreatment in the past year, by the presence of health problems as assessed using EQ-5D.

Table 25

Type of *baseline* mistreatment in the past year, by presence of health problems based on EQ-5D (*England only*)

England only with valid EQ-5D profile

Type of mistreatment ^c	Presence of health problems		Total %
	No problems %	Some problems %	
All			
Neglect *	-	1.6	1.0
Financial	0.5	0.7	0.6
Interpersonal ^a	0.4	1.3	1.0
<i>Mistreatment</i> *	0.9	3.7	2.6
<i>Abuse exc. neglect</i>	0.9	2.0	1.6
<i>Bases unweighted</i> ^b	370	584	1046
<i>Bases weighted</i>	590	1006	1757

^a *Interpersonal abuse includes psychological, physical and sexual abuse.*

^b *Bases vary slightly, bases shown here are for neglect.*

^c *The baseline definition of mistreatment includes cases with 10 or more incidents of psychological abuse or neglect, or fewer than 10 cases of neglect with a very serious consequence. Perpetrators are family, friends and care workers.*

* *Significant at the 10% level.*

Overall, those who reported having health problems were more likely to have been mistreated than those who reported being in good health (3.7% of those who had health problems had experienced mistreatment compared with 0.9% of those who had not had health problems).

This difference was largely explained by neglect – all those who had experienced neglect reported at least one health problem. The presence of health problems did not have a significant impact on the prevalence of financial or interpersonal abuse.

Mistreatment and bladder problems

HSE respondents were asked whether they had a bladder problem and, if so, how often they experienced bladder problems (no problems, less than once a month, less than once a week and more than once a week).

Table 26 shows prevalence of mistreatment in the past year for those with and without bladder problems and by frequency of bladder problems (Table 26).

Table 26

Type of *baseline* mistreatment in the past year, by frequency of bladder problem (England only)

England only

Type of mistreatment ^d	Presence of bladder problem		Frequency of bladder problem ^c		Total %
	No bladder problem	Bladder problem	Less than once a week	At least once a week	
	%	%	%	%	
All					
Neglect	0.9	1.6	-	2.2	1.0
Financial	* 0.4	1.7	2.3	1.4	0.6
Interpersonal ^a	0.5	1.7	1.4	1.8	1.0
Mistreatment *	* 1.8	4.9	* 3.7	5.4	2.6
Abuse exc. neglect *	* 0.9	3.3	* 3.7	3.2	1.6
<i>Bases unweighted^b</i>	760	216	62	154	1046
<i>Bases weighted</i>	1275	366	103	264	1757

^a Interpersonal abuse includes psychological, physical and sexual abuse.

^b Bases vary slightly, bases shown here are for neglect.

^c Due to small base sizes, the profile of those having bladder problems less than once a month has not been presented.

^d The baseline definition of mistreatment includes cases with 10 or more incidents of psychological abuse or neglect, or fewer than 10 cases of neglect with a very serious consequence. Perpetrators are family, friends and care workers.

* Significant at the 10% level.

Having a bladder problem had a significant impact on the prevalence of mistreatment: older people with a bladder problem had a higher level of mistreatment (4.9%) than those who did not (1.8%) and they were more likely to have experienced abuse, excluding neglect (3.3% vs 0.9%). Financial abuse was also more prevalent for those with a bladder problem (1.7% vs 0.4%).

Those who had more frequent bladder problems (at least once a week) were more likely to experience mistreatment than those with less frequent problems (5.4% vs 3.7%).

Mistreatment and haematological status

The HSE collects bio-medical measures alongside information from interviews, enabling evaluation of anaemia, iron deficiency and vitamin B12 deficiency. The presence or absence of anaemia is based on the World Health Organisation criteria of haemoglobin levels lower than 13g/dl for men and 12g/dl for women.³⁹ Iron deficiency is defined as serum ferritin lower than 45ng/ml and low vitamin B12 as levels lower than 170ng/l. Table 27 shows prevalence of mistreatment in the past year by haematological status.

Table 27

Type of *baseline* mistreatment in the past year, by haematological status (*England only*)

England only with valid blood sample

Type of mistreatment ^a	Anaemia ^d		Low serum ferritin ^e		Low vitamin B12 (<170ng/l)	
	No %	Yes %	No %	Yes %	No %	Yes %
All						
Neglect	* 0.5	7.3	1.3	1.1	1.4	-
Financial	0.5	1.2	0.9	0.6	0.9	-
Interpersonal ^b	0.8	-	0.5	1.1	0.6	1.2
Mistreatment	* 1.8	8.5	2.7	2.8	3.0	1.2
Abuse exc. neglect	1.3	1.2	1.4	1.7	1.6	1.2
<i>Bases unweighted^c</i>	572	63	502	142	565	73
<i>Bases weighted</i>	563	71	494	151	562	76

^aThe baseline definition of mistreatment includes cases with 10 or more incidents of psychological abuse or neglect, or fewer than 10 cases of neglect with a very serious consequence. Perpetrators are family, friends and care workers.

^bInterpersonal abuse includes psychological, physical and sexual abuse.

^cBases vary slightly, bases shown here are for neglect.

^dAnaemic if Hb<13.0 (men) or Hb<12.0g/dl (women).

^eSerum ferritin defined as low if <45ng/ml.

* Significant at the 10% level.

There were higher levels of mistreatment among those with anaemia (8.5%) than those without (1.8%). This difference is largely explained by neglect, which was significantly higher among those who were anaemic (7.3% vs 0.5%). There was no association of mistreatment with low levels of serum ferritin or vitamin B12.

Mistreatment and psychosocial health (GHQ12 score)

In the HSE, the 12-item general health questionnaire (GHQ12) was used to assess psychosocial well-being (see Chapter 3 of the HSE report, Volume 4)². A 'high' GHQ12 score of four or more is an indicator of probable psychological disturbance or mental ill health. Table 28 shows the prevalence of mistreatment by GHQ12 score.

Table 28

Type of *baseline* mistreatment in the past year, by GHQ12 score (*England only*)

England only

Type of mistreatment	GHQ12 score			Total
	Score 0	Score 1-3	Score 4+	
	%	%	%	%
All				
Neglect *	0.3	2.1	4.3	1.0
Financial	0.4	1.5	-	0.6
Interpersonal ^b *	0.5	1.1	3.8	1.0
Mistreatment *	1.1	4.8	8.2	2.6
Abuse exc. neglect *	0.9	2.6	3.8	1.6
<i>Bases unweighted^c</i>	662	225	88	1046
<i>Bases weighted</i>	1090	396	150	1757

^aThe baseline definition of mistreatment includes cases with 10 or more incidents of psychological abuse or neglect, or fewer than 10 cases of neglect with a very serious consequence. Perpetrators are family, friends and care workers.

^b Interpersonal abuse includes psychological, physical and sexual abuse.

^c Bases vary slightly, bases shown here are for neglect.

* Significant at the 10% level.

Overall, the prevalence of mistreatment increased with GHQ12 score from 1.1% of respondents with a score of 0, to 4.8% of those with a score between one and three, and to 8.2% of those with a score of four or more (i.e. with the highest probability of having a psychological disturbance). This pattern was found for all forms of mistreatment except for financial abuse.

Mistreatment and geriatric depression (GDS10 score)

HSE respondents also completed the ten item Geriatric Depression Scale (GDS10), which measures depressive symptoms such as feeling unhappy, feeling empty, helpless or hopeless. A score of three or more was defined as a high GDS10 score.

Table 29

Type of *baseline* mistreatment in the past year, by GDS10 score (England only)

England only

Type of mistreatment ^a	GDS10 score			Total
	Score 0	Score 1-2	Score 3+	
	%	%	%	%
All				
Neglect *	-	-	4.8	1.0
Financial	-	0.6	1.6	0.6
Interpersonal ^b	-	0.7	1.8	1.0
Mistreatment *	-	1.3	8.4	2.6
Abuse exc. neglect *	-	1.3	3.4	1.6
<i>Bases unweighted^c</i>	285	435	214	1046
<i>Bases weighted</i>	460	732	373	1757

^aThe baseline definition of mistreatment includes cases with 10 or more incidents of psychological abuse or neglect, or fewer than 10 cases of neglect with a very serious consequence. Perpetrators are family, friends and care workers.

^b Interpersonal abuse includes psychological, physical and sexual abuse.

^c Bases vary slightly, bases shown here are for neglect.

* Significant at the 10% level.

There was a clear association of mistreatment with depression (Table 29). Respondents who did not have any symptoms of depression (a score of 0 on GDS10) had not reported any form of mistreatment in UKPS. Prevalence of mistreatment then increased to 1.3% among those scoring one or two and to 8.4% among those with a score of three or more.

There is some question over the stability of scores over time as the GDS was completed {up to a year} before the UKPS. However, a significant association of mistreatment and depression was also reported in UKPS based on a different measure, the Centre for Epidemiological Studies Depression Scale (CES-D, see UKPS Table 3.11).

Mistreatment and views of the local neighbourhood

Views of the local neighbourhood are one component of social capital, assessed at local area level and designed to capture respondents' views on aspects of their local area such as neighbours, transport links, access to leisure and problems with vandalism.

The HSE included six questions about respondents' local areas. An average score was calculated for each postcode sector, based on scores from all respondents 65+, and postcode sectors aggregated into tertiles. The tertiles were labelled as 'positive', 'middle' and 'lowest' with the positive tertile having the highest scores, or greatest stocks of neighbourhood social capital. Details of this and other aspects of social capital can be found in the main HSE 2005 report.²

Table 30

Type of *baseline* mistreatment in the past year, by views of the local neighbourhood (area-level, England only)

England only

Type of mistreatment ^a	Views about the local neighbourhood (area-level)			Total %
	Positive %	Medium %	Negative %	
All				
Neglect *	-	1.1	1.7	1.0
Financial	0.7	0.7	0.4	0.6
Interpersonal ^b	0.7	0.6	1.2	1.0
Mistreatment	1.4	2.4	3.3	2.6
Abuse exc. neglect	1.4	1.3	1.6	1.6
<i>Bases unweighted^c</i>	368	385	284	1046
<i>Bases weighted</i>	605	651	480	1757

^aThe baseline definition of mistreatment includes cases with 10 or more incidents of psychological abuse or neglect, or fewer than 10 cases of neglect with a very serious consequence. Perpetrators are family, friends and care workers.

^bInterpersonal abuse includes psychological, physical and sexual abuse.

^cBases vary slightly, bases shown here are for neglect.

* Significant at the 10% level.

Prevalence of mistreatment was highest among those who had negative views of their neighbourhood (3.3% compared with 1.4% for those with positive views), but the difference was not significant. The only significant difference was for neglect: no one who had a positive view of the neighbourhood had experienced neglect, compared with 1.1% of those who had a medium view and 1.7% of those who had a negative view (Table 30).

5.4 Other factors associated with mistreatment: multivariate analysis (England)

Introduction

The multivariate analysis for the England only sample was carried out in two stages. First, analyses used for the UK-wide sample were duplicated for respondents in England alone in order to check

that the model would be the same in England as for the UK. Other factors associated with mistreatment were then examined using data from the HSE 2005.

HSE variables found to be significant in the bivariate analyses (see Section 5.3) were selected for the initial regression model. Note that the use of medication could not be included in this model as all those who were mistreated took medication. Also the measures of anaemia, low serum ferritin, and low vitamin b12 were only available for those who had a valid blood sample and this meant there were too few cases to analyse these measures using logistic regression.

Factors associated with *baseline* mistreatment by a family member, friend or care worker (England only)

Factors associated with mistreatment by a family member, friend or care worker (the *baseline* definition) were examined for respondents in England only, using the same variables that were included in the model for all UK respondents (except for use of regular medication).

The final model for England only shows a significant association of sex, marital status and CES-D as with the UK as a whole, but quality of life and socio-economic position were both no longer significant (Appendix A, Table A3; and see Table 12 for the UK-wide analysis). This could simply be due to small sample numbers rather than any real difference in the models.

Because of the small number of mistreated cases in England, care must be taken when interpreting these results. Also because of the low numbers, it was not possible to run models separately by sex.

Starting with the model based solely on UKPS variables (Table A3), additional variables from HSE 2005 were then added to the initial model, based on those factors found to be significant in the bivariate analysis. The HSE variables included in the model were: mobility problems, bladder problems, GDS10 score, GHQ12 score, number of falls, EQ-5D profile, and views of the local neighbourhood. (It was not possible to include the GDS10 score in this model as there were no mistreated individuals who did not have a score of 1 or more.)

After taking all these additional variables into account, the final model showing factors associated with mistreatment is shown in Table 31.

Table 31

Baseline mistreatment^a in past year by family member, friend or care worker (England only, merged data)

England only

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Sex (p=0.005)</i>				
Male	1	749		
Female	5.97	967	3.76	2.12,16.86
<i>Marital Status (p=0.014)</i>				
Living as a couple (married or cohabiting)	1	973		
Single	1.16	85	1.23	0.2,6.68
Separated or divorced	3.29	138	1.91	1.27,8.55
Widowed	0.22	520	0.16	0.07,0.71
<i>HSE GHQ12 score (p=0.040)</i>				
Score 0	1	1186		
Score 1-3	3.44	384	2.01	1.32,9
Score 4+	4.71	146	3.12	1.58,14.05
<i>Number of falls in previous 12 months (p=0.059)</i>				
No falls	1	1313		
1-2 falls	1.93	318	1.11	0.75,5
3+ falls	4.72	85	3.18	1.56,14.3

^a In England, 45 of the 1716 cases had experienced baseline mistreatment in past year by family, friend or care worker (weighted bases).

Factors found to be significantly associated with mistreatment were sex, marital status, psychosocial wellbeing (GHQ12) and the number of falls in the previous 12 months.

The depression indicator from the UKPS data (CES-D) and the measure of psychosocial wellbeing from HSE (GHQ12) could not both be included in the model as the variables are so closely related: GHQ12 includes some assessment of depression and anxiety symptoms. When GHQ12 was included, CES-D depressive symptoms were no longer significant and vice versa.

5.5 Other factors associated with ALL mistreatment: multivariate analysis (England)

All mistreatment, by a family member, friend or care worker (England)

When the definition is expanded to include *all* mistreatment, all of the variables that were significant for the full UK sample (see Table 14 in Chapter 3) were still significant when the model was run on the sample in England only (Appendix A, Table A4). Sex, marital status, depression, quality of life and regularly taking medicine were all still associated with mistreatment.

All of the HSE variables that were included in the model for the *baseline* definition of mistreatment were also considered for the model of *all* mistreatment (Table 32) so that the initial models were the same.

Table 32

**All mistreatment^a in past year by family member, friend or care worker
(England only, merged data)**

England only

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Sex (p=0.047)</i>				
Male	1	749		
Female	2.08	967	0.76	1.13,3.79
<i>Marital Status (p=0.035)</i>				
Single	0.62	85	0.63	0.11,3.34
Living as a couple (married or cohabiting)	1	973		
Separated or divorced	3.25	138	1.62	1.43,7.4
Widowed	0.64	520	0.24	0.34,1.2
<i>HSE GHQ12 score (p=0.003)</i>				
Score 0	1	1186		
Score 1-3	3.45	384	1.28	1.87,6.35
Score 4+	3.08	146	1.40	1.46,6.51
<i>Regularly takes medicine (p=0.060)</i>				
Yes	4.20	1455	3.20	1.2,14.72
No	1	261		
<i>Presence of mobility problem (p=0.028)</i>				
No mobility problem	1	998		
Mobility problem	2.25	718	0.83	1.23,4.13
<i>Views about the local neighbourhood (area level) (p=0.017)</i>				
Negative	2.59	464	1.11	1.28,5.24
Medium	1.10	657	0.51	0.51,2.35
Positive	1	595		
<i>Regular contact with friends (p=0.018)</i>				
Yes	1	1421		
No	2.46	295	0.93	1.31,4.6

^a In England, 88 of the 1716 cases had experienced 'all' mistreatment in past year by family, friend or care worker (weighted bases).

However, when the additional variables were controlled for in the model, only psychosocial wellbeing (GHQ12), the presence of mobility problems, views about the local neighbourhood, and regular contact with friends remained significant. Again GHQ12 was only significant when CES-D was removed from the model and vice-versa. It was difficult to use the GDS10 score as only one mistreated case had a score of 0.

**All mistreatment, by a family member, friend, care worker, neighbour or
acquaintance (England)**

Using the widest definition of mistreatment which includes neighbours and acquaintances as perpetrators, quality of life was not significant for the England only sample (Table A5), unlike for the full UK sample (Table 13).

When the HSE variables were added to the model, using the same initial model as for other definitions of mistreatment (Tables 31 and 32), only marital status, GHQ12, on regular medication and views about the local neighbourhood were significant. Again, GHQ12 only became significant when CES-D was not in the model (Table 33).

Table 33

All mistreatment^a in past year by family member, friend, care worker, neighbour or acquaintance (England only, merged data)

England only

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Marital Status (p=0.018)</i>				
Single	1.05	85	0.69	0.36,3.1
Living as a couple (married or cohabiting)	1	973		
Separated or divorced	3.40	138	1.35	1.77,6.54
Widowed	1.45	526	0.39	0.93,2.25
<i>HSE GHQ12 score (p=0.006)</i>				
Score 0	1	1186		
Score 1-3	1.88	384	0.52	1.19,2.95
Score 4+	2.69	146	0.92	1.53,4.73
<i>Regularly takes medicine (p=0.021)</i>				
Yes	2.81	1455	1.26	1.34,5.88
No	1	261		
<i>Views about the local neighbourhood (area level) (p=0.060)</i>				
Negative	1.68	464	0.49	1.04,2.71
Medium	0.92	657	0.28	0.55,1.53
Positive	1	595		

^a In England, 145 of the 1716 cases had experienced baseline mistreatment in past year by family, friend or care worker (weighted bases).

When the definition of mistreatment was expanded further to include *all* incidents and *all* perpetrators, the following factors were significant:

- Marital status, with an increased likelihood associated with being separated or divorced
- A GHQ12 score of one or more associated with increased likelihood of mistreatment
- Regular use of medication was associated with an increased likelihood of mistreatment
- Those who had a negative view of the local neighbourhood were more likely to have experienced mistreatment.

Summary of additional factors associated with mistreatment (England)

Table 34 shows a summary of the factors associated with mistreatment when the initial model includes additional variables from the HSE. The analysis provides a summary of Tables 31 to 33 and covers respondents in England only.

Table 34

Summary of additional factors associated with mistreatment^a (England only, merged data)

All UKPS

Variable	Baseline, friends, family, care workers	All mistreatment, friends, family, care workers	All mistreatment, all perpetrators
<i>Sex</i>			
Male	1	1	-
Female	* 5.97	* 2.08	-
<i>Marital Status</i>			
Living as a couple (married or cohabiting)	1	1	1
Single	1.16	0.62	1.05
Separated or divorced	* 3.29	* 3.25	* 3.40
Widowed	0.22	0.64	1.45
<i>HSE GHQ12 score</i>			
Score 0	1	1	1
Score 1-3	* 3.44	* 3.45	* 1.88
Score 4+	* 4.71	* 3.08	* 2.69
<i>Regularly takes medicine</i>			
No	-	1	1
Yes	-	* 4.20	* 2.81
<i>Presence of mobility problem</i>			
No mobility problem	-	1	-
Mobility problem	-	* 2.25	-
<i>Views about the local neighbourhood (area level)</i>			
Positive	-	1	1
Medium	-	1.10	0.92
Negative	-	* 2.59	* 1.68
<i>Regular contact with friends</i>			
Yes	-	1	-
No	-	* 2.46	-
<i>Number of falls in previous 12 months</i>			
No falls	1	-	-
1-2 falls	1.93	-	-
3+ falls	* 4.72	-	-

^a The definition of mistreatment used includes all incidents of neglect or psychological abuse (rather than 10 or more) by all perpetrators (family, friends, care workers, neighbours and acquaintances).

^b Weighted bases, England only: 45 cases of baseline mistreatment, 88 of all mistreatment by family, friends and care workers and 145 for all mistreatment by all perpetrators, from a total of 1716 cases.

*Indicates significant odds ratio

Some risk factors found to be significant in earlier models based on UK wide data (Table 14) remained significant when additional variables from the HSE were added to the model. The common risk factors were:

- Sex - women were more likely than men to experience mistreatment by *inner circle* perpetrators.

- Marital status - those who were separated or divorced were more likely to experience mistreatment, however defined, than those living as a couple
- Depression and psychosocial wellbeing - those with a CES-D score of three or above in UKPS were more likely to experience mistreatment. Only one mistreated case had a score of 0 on the depression scale used in HSE (GDS10) so it is likely to be associated with mistreatment but could not be used in the model. However, psychosocial wellbeing was found to be associated with likelihood of mistreatment.
- Use of regular medication – those taking regular medication were, on the whole, more likely to experience mistreatment

Quality of life, a key risk factor in the UK data, was no longer significant in the England only sample.

Some new risk factors emerged, although these varied depending on the definition of mistreatment used. The relatively low number of cases in the England only data makes it difficult to draw firm conclusions, but tentative associations were found for health and social factors:

- Having a mobility problem was linked with an increased risk of *all* mistreatment by *inner circle* perpetrators
- Those who reported three or more falls were more likely to experience mistreatment (baseline) by *inner circle* perpetrators
- A negative view of the local neighbourhood was associated with increased risk of *all* mistreatment
- Those who did not have regular contact with friends were more likely to experience *all* mistreatment by family, friends and care workers.

5.6 Summary and conclusions

The broad aim of this further analysis of the UKPS (2007) data has been to respond to key questions arising from the study, policy and practice responses to elder mistreatment. The analysis focused on the way that prevalence figures are estimated depending upon different definitions; the discovery of underlying risk factors, when other variables have been taken into account; determining the degree to which mistreatment can be used as an umbrella phenomenon, or whether each type of abuse and neglect has its own distinctive dynamic; and whether it is possible to further specify risk and the relationship between risks.

In order to address these issues three research objectives were identified:

- (1) to provide prevalence estimates based on alternative definitions of mistreatment, and analyse the relationship between the key variables that emerge;
- (2) by using multivariate logistic regression analysis, to provide a better understanding of the importance of the various risk factors associated with experience of mistreatment;
- (3) to link data from the Health Survey for England (HSE), in order to explore a wider range of factors associated with individuals' experience of mistreatment than was possible in the main UKPS report.

Multivariate analysis allows each variable (or potential risk factor) to be examined in context to determine which are the most powerful indicators of risk. Within each factor it also shows the likelihood - in terms of what the odds are - that one category will generate risk more than another.

Risk factors are factors found to be associated with mistreatment in some way. The way in which risk factors affect the likelihood of mistreatment is varied and complex, and the impact of risk factors may be altered by the presence of other factors (the multivariate analysis takes this into

account). At its most basic level, a risk factor could have a causal influence, be the result of mistreatment, or simply vary with the mistreatment influenced by some common factor.

For example, depression is one of the risk factors associated with mistreatment regardless of definition used. Although depression may increase the likelihood that older people perceive and report mistreatment, it may also be a consequence of experiencing mistreatment or indeed a response to some common factor, such as mobility problems.

Expanding the definition of mistreatment increases the size of the mistreated group and therefore allows a larger number of statistically valid comparisons to be made. However, it runs the risk of grouping together phenomena that may otherwise have little in common.

Definitions

Using different definitions and therefore different measures of mistreatment does, in itself, generate different levels of prevalence, even when the population of respondents remains the same. This indicates that differences between prevalence studies may owe as much to definitional issues as to cultural or national patterns of abuse.

There is an increase in the overall prevalence of mistreatment when expanding the categories of perpetrator to include an *outer circle* of neighbours and acquaintances, or when changing the period when mistreatment may have occurred, or when using single rather than repeated incidents.

The range of prevalence for mistreatment varied from 2.6% for the *inner circle* of family, friends and paid carers, using a base of ten or more incidences of neglect and psychological abuse, to 8.6% using the widest definition, of one or more incidents and adding neighbours and acquaintances. Further, in this widest definition, the most common types of mistreatment changed to psychological abuse (4.1%) followed by neglect (2.8%). The addition of 'one or more' incidents also changed the perpetrator profile with 'other family' and 'neighbours and acquaintances' taking over as the most common category. Changes in the patterning and order of prevalence may indicate that qualitatively different phenomena are in evidence.

Risk Factors

Changing definitions also influence risk factors. Generally speaking, increasing the subgroup of mistreated respondents *reduced* both the number of significant risk factors and the odds, or strength, of many of those factors, as an indicator of mistreatment. In many cases, the result was fewer or weaker indicators of risk. Inclusion of HSE data also changed the relationship between risk factors, indicating that different dynamics may be at play and reinforcing the view that different phenomena were being observed.

There does appear to be a robust and common set of risk factors across different definitions for mistreatment overall. When different measures of mistreatment in the UK were compared for significant risk factors, marital status, depression, quality of life and use of medication remained for all permutations (Table 14). They were therefore common factors independent of changes of the precise measure used. Sex differences were also an important factor, excepting when neighbours and acquaintances were added. When the 'single incident' definition was used, socio-economic classification ceased to be significant.

When different types of abuse and neglect are compared they appear to have factors that are specific to each type. This indicates that particular risks cluster around specific forms of abuse.

With respect to comparing different types of abuse and neglect, risk factors show considerable distinctiveness according to type, with little overlap. When there is overlap on a particular variable, the risk factors may pull in different directions (Table 22).

Poor quality of life is the only factor that covered each type except physical abuse. Overall we found fourteen variables associated with individual forms of mistreatment. Financial abuse and physical abuse shared three of these, while neglect and psychological abuse had two variables in common, albeit with somewhat different effects.

Significant risk factors for financial and physical abuse were: loneliness in the past week, use of care services and marital status. On marital status, financial abuse was associated with being single or widowed but physical abuse was associated with being separated or divorced. Both neglect and psychological abuse were associated with visits to a lunch club or day centre and with long term illness. However, visiting was positively associated with neglect and negatively with psychological abuse. Psychological abuse also shared use of care services with financial and physical abuse, but the trend is in the opposite direction, with psychological abuse being negatively associated with service use.

Variables found to indicate a significant likelihood of risk when a multivariate analysis was used (as reflected in odds ratios) included; sex, marital status, socio-economic classification, depression, quality of life, and regularly taking medicine. These show some overlap with the risk factors identified by others^{5 30 31}. When individual factors were considered in isolation (using bivariate analysis) as in the main UKPS report, there appeared to be more risk factors in common with earlier research, than when multiple factors were examined simultaneously. Multivariate analysis, as used in this report, provides a clearer picture of salient risk factors when other factors are controlled for. As multivariate analysis has been relatively rarely used, other findings may benefit from its deployment.

Additional variables from the Health Survey for England:

Tracking responses back to the Health Survey for England drew attention to a number of additional factors that were related to mistreatment. These largely concerned a series of problems associated with mobility, including falls and walking; mental well being; and poor overall health, including bladder problems and anaemia.

Additional Findings of Note

Little clustering of mistreatment. Counter to assumptions often made in the literature on mistreatment, we found no evidence to suggest that an older person experiencing one type of abuse, would experience others. Between 94% and 90% of victims suffered from only a single type. Types of mistreatment did not cluster, and appeared to be case specific. Regardless of the definition of mistreatment used, the majority of mistreated older people reported only 1 perpetrator type (from partner, other family member, friend, care worker or neighbour or acquaintance) whether *inner circle* perpetrators were included (82%) and when *all* perpetrators were included (85%).

Inner and outer circles. There is emerging evidence that *inner* and *outer* circles of relationship generate different patterns of mistreatment. This is most marked with psychological abuse, where family, friends and paid carers are associated with health related risks, while neighbours and acquaintances are associated with socio-demographic ones. The likelihood of financial abuse also differed between the two groups, with neighbourhood forms becoming associated with additional

factors, including marital status, tenancy and social contact. Attitudes to neighbourhood also vary as a risk factor between types of mistreatment.

Age not a Factor within the 65 plus group. Age dropped out as a risk factor, when other variables were taken into account. This indicates that 'age effects' reflect other factors within the population studied and that age in itself does not generate risk within that group. Age emerged as a significant indicator in only one analysis- with psychological abuse, where being aged 85 and over reduced the odds of abuse to a tenth of that for the 66-74 age group.

Marital Status, Sex and Mistreatment: While marital status was significantly associated with the likelihood of mistreatment for both men and women, the effects were different. Single men (but not single women) had lower odds of experiencing mistreatment than those who were living as a couple. Women (but not men) who were separated or divorced had a greater risk of mistreatment while those who were widowed had a relatively reduced risk. All other variables in the model seemed to have similar effects for both men and women.

In sum, the results point to a phenomenon that is complex, multi-faceted, and sensitive to different perspectives. While different definitions of mistreatment hold certain risk factors in common, there is enough evidence of specificity to make it unwise for types of abuse and neglect to be treated as the same. Each evidences a different dynamic.

Implications for future research

5.7 Future Directions

The findings of this research suggest the following points for further investigation and debate.

Further study is needed of the different types of mistreatment and the specific dynamics at play in each form of abuse and neglect identified. If, as is suggested by the data, different types of mistreatment are characterised by specific risk factors, then it is likely that specific processes are at play for each type. This would have implications for the better understanding of the phenomena and the targeting of effective resources that are responsive to these differences. An umbrella concept, such as mistreatment has much to recommend it in terms of raising awareness of this social problem and in creating a comprehensive policy framework. However, at ground level, knowledge and effective responding to a complex series of influences would appear to be a priority. This conclusion would have implications for the development of understanding of these influences, the specialist training of professionals engaging with particular types of mistreatment and the exploration of interventions attuned to physical, financial, sexual, psychological abuse and forms of neglect.

Neglect is in need of further study and deeper understanding. Neglect maintains its status as the most common form of mistreatment and one of the most consistent in terms of significant risk factors. This remained true across different approaches to the definition and measurement of prevalence. Neglect appears, from the current research, to reflect a combination of health and social factors. By implication, it therefore spans a number of service systems and professional groups. Much more needs to be known about the circumstances that contribute to the emergence of the neglect of older people and its relation to social inclusion. It is unlikely that neglect is a uniform phenomenon and further research would be needed to provide evidence on the processes at work. It might be true to say that we as a research and policy community have neglected neglect.

Future policy development may require a longitudinal evidence base and an enlarged data set. While the UKPS has made a significant contribution to the understanding of abuse and neglect, it is still a 'snap shot' in so far as we are given a comprehensive picture within one national setting at one point in time. We have very little information on how abuse and neglect and their associated risk factors change over time and across cultural context. It is therefore difficult to assess the effects of policy and practice innovation. As with all empirical investigation the UKPS has thrown up a series of new questions and problems for research, policy and practice. It has become clear that even with expanded definitional criteria, it is very difficult to achieve statistically valid numbers to investigate prevalence for different types of abuse and neglect. As a comparable exercise is unlikely to be repeated in the foreseeable future, a way forward may be to identify and use key 'marker' questions that can be added to existing large surveys- such as the Health Survey for England. These would allow different risk factors to be evaluated and monitored over time at minimal extra cost. A longitudinal picture of the frequency, nature and likelihood of abuse and neglect would then be available as a guide to future policy and practice development.

Traditional categorisation of mistreatment into perpetrator, victim and type may need to be re-visited. These distinctions have arisen in particular historical circumstances and within different frameworks, for example: legal, social work, health, policy and research, each of which contains a series of priorities, moral, ethical and methodological forms of self-regulation that may or may not overlap. The different perspectives on these terms and their degree of fit with emerging 'safeguarding' agendas may require further examination if misunderstanding is to be avoided.

The meaning of 'position of trust' and the scope of abuse and neglect requires clarification. In previous research these differences have given rise to misunderstanding about the nature and location of 'position of trust', the relative status of single or repeated incidents of mistreatment and the value of chronological age status as a criterion for inclusion. While this debate is unlikely to come to a universal and fixed conclusion, the following pointers may be tentatively suggested for future investigation, both in terms of research and practice.

- Examine the distinction between mistreatment and social ageism. While one may 'permit' the other, it is important that definitions of abuse and neglect do not become so wide as to be over-inclusive and lose meaning. Certain phenomena- such as psychological abuse and neglect appear to fall into a hinterland between these concepts and require conceptual clarity.
- Clarify the relationship between common and specific dynamics of adult protection and safeguarding for distinctive groups of service users. If specific dynamics are emerging between type and perpetrator characteristics within elder mistreatment, it is likely that similar distinctions will emerge between different groups of vulnerable adults. The identification of common and specific factors for different groups of adults would support the effective targeting of services.
- Examine the relationship between family, professional and neighbourhood forms of abuse and neglect. It is now emerging that *inner* and *outer* circles of relationship generate different patterns of abuse. In order to respond effectively to these different forms, particularly in relation to social inclusion, more needs to be known about their characteristics.
- Clarify the meaning of 'position of trust'. Previous attempts to associate 'position of trust' exclusively with perpetrator categories, for example have obscured the role of context and failed to reflect the fluid nature of social values. Position of trust is currently used as if it

includes an amalgam of legal duties, professional codes of practice, degrees of intimacy, social expectations and interpersonal relationships. The use of a model based on 'inner' and 'outer' circles of intimacy, trust and responsibility, that is not tied to a particular role or context, may be a way forward here, but would require further conceptual work.

5.8 Policy Implications

The further analysis undertaken as part of this research indicates that elder mistreatment is a complex phenomenon.

Three conclusions stand out that would have implications for policy and practice based on evidence from risk factors and the use of different definitions. First, each form of misuse appears to have a distinctive set of factors associated with it, with relatively little overlap between types of abuse. Second, there has been little evidence that different forms of abuse or types of perpetrator cluster around particular individuals who have been subject to mistreatment. Third, there would appear to be a reasonable case for the extension of consideration of mistreatment beyond an *inner circle* of family, friends and professional carers to embrace an *outer circle* of neighbours and acquaintances.

Taken together these findings suggest that future policy should avoid blanket terminology in responding to this social problem, although a universal term such as 'elder mistreatment' continues to have value as a policy marker, lending focus to a debate. The implications of the distinctiveness of different forms have greatest implication for practical responding. If different types of abuse, such as financial, physical, psychological and sexual, have different dynamics, then responses should become specialised to address the specific character of each form.

Similarly, relationships occurring in *inner* and *outer circles* may require different forms of practical response. What is increasingly clear, with respect to clustering, is that older victims do not 'attract' more abuse, and that forms of mistreatment may depend more upon perpetrator and contextual factors than victim characteristics.

Appendix A: Analysis of England only sample

A.1 Methodology for UKPS and HSE 2005

Details of the methodology and content of the UK Study of the Abuse and Neglect of Older People can be found in the main report.¹ The methodology and documentation for the 2005 Health Survey for England are outlined in Volume 5 of the HSE 2005 report.²

A.2 Sample characteristics

This section briefly describes some sample characteristics for UKPS respondents living in England. (Characteristics of the full UKPS sample are described in Chapter 2 of the main UKPS report.¹)

Age, sex and NS-SEC for the England sample are shown in the tables below.

Table A1

UKPS respondents in England

Demographics	Sex		Total	UK population ^a
	Men	Women		
	%	%	%	%
Age				
66-74	56	47	51	55
75-84	37	43	40	35
85 and over	7	10	9	10
<i>Mean age (years)^b</i>	75	76	75	75
Ethnic group				
White	96	99	98	97
Non – White	4	1	2	3
<i>Bases unweighted^c</i>	504	543	1047	8,914,917
<i>Bases weighted</i>	765	996	1761	-

^a 2001 census data. Age: household residents aged 65 and over. Ethnicity: includes people living in private households and communal establishments, base 9,340,997.

^b Mean age calculated for household residents aged 65 to 99, base 8,909,971. Mean age was calculated by taking the sum of each person's age last birthday (in single year counts) and dividing by the number of people.

^c Bases vary slightly, bases shown here are for age.

As 83% of respondents to the UKPS lived in England, the sample characteristics of the English respondents are very similar to the characteristics of the full UK sample. There were more women than men respondents (57% versus 43%). 51% of respondents were aged 66-74, 40% were 75-84 and 9% were 85 and over. The mean age was 75 (75 for men and 76 for women) and was similar to the mean age of the general UK population. Most of respondents were white (96% of men and 99% of women) and this was also in line with the proportion of white people of this older age group in the general population (97%).

Table A2

UKPS respondents in England

NS-SEC	Sex			GB Population ^a		
	Men	Women	Total	Men	Women	Total
	%	%	%	%	%	%
Managerial / professional	36	24	29	34	19	25
Intermediate	5	20	13	5	19	13
Small employers / own account workers	15	5	9	12	5	8
Lower supervisory / technical	17	4	10	19	6	11
Semi-routine / routine	28	42	36	30	45	38
Other ^b	-	5	3	1	6	4
<i>Bases unweighted</i>	504	543	1047	2206	2621	4827
<i>Bases weighted</i>	765	996	1761	3,871,000	4,967,000	8,837,000

^a *General Household Survey 2005. Household residents aged 65 and over in GB. Based on current or last job. The GHS is weighted to compensate for non-response (sample-based weighting) and to match the population distribution in terms of region, age group and sex (population-based weighting).*

^b *Other includes never worked, long term unemployed, unclassifiable.*

Table A2 shows that men were most likely to have worked in managerial and professional occupations (36%), followed by semi-routine occupations (28%) and lower supervisory and technical occupations (17%). Women had mainly worked in semi-routine occupations (42%), management and professional occupations (24%) and intermediate occupations (20%). These proportions were in agreement with the ones from the general population.

A.3 Factors associated with mistreatment (England, UKPS data)

This section compares the factors associated with mistreatment in the UK and in England. The same UKPS variables were used to examine mistreatment for respondents in England and the whole of the UK. For respondents in England analysis was then expanded to include variables from HSE 2005 (See Chapter 5).

Table A3 shows factors associated with *baseline* mistreatment for England only; comparable UK data is shown in Table 11.

Table A3

**Baseline mistreatment in past year by family member, friend or care worker
(England only, UKPS data)**

England only

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Sex (p=0.001)</i>				
Male	1	750		
Female	6.93	971	4.20	2.55,18.79
<i>Marital Status (p=0.003)</i>				
Living as a couple (married or cohabiting)	1	973		
Single	0.90	85	1.03	0.14,5.93
Separated or divorced	3.93	138	2.15	1.6,9.66
Widowed	0.20	526	0.14	0.06,0.64
<i>CES-D depressive symptoms (p<0.001)</i>				
Below 3	1	1322		
3 or above	4.85	399	2.31	2.21,10.63

^a The baseline definition of mistreatment included cases with 10 or more incidents of psychological abuse and neglect, or fewer than 10 incidents of neglect with very serious consequence. Incidents were for inner circle perpetrators (family, friends, care workers).

Compared with the model for the whole of the UK, quality of life and socio-economic position were both no longer significant (although this could simply be due to small sample numbers rather than any real difference in the models).

The definition was expanded to include *all* mistreatment in England only (Table A4). Table 12 shows comparable data for the whole of the UK.

Table A4

**All mistreatment in past year by family member, friend or care worker
(England only, UKPS data)**

England only

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Sex (p=0.026)</i>				
Male	1	750		
Female	2.28	971	0.84	1.24,4.18
<i>Marital Status (p=0.009)</i>				
Single	0.59	85	0.63	0.1,3.42
Living as a couple (married or cohabiting)	1	973		
Separated or divorced	3.44	138	1.54	1.65,7.18
Widowed	0.70	526	0.27	0.38,1.32
<i>CES-D depressive symptoms (p=0.015)</i>				
Below 3	1	1322		
3 or above	2.23	399	0.73	1.3,3.82
<i>Quality of life tertile (p=0.023)</i>				
Lowest	8.07	486	6.57	2.12,30.78
Middle	8.52	673	6.65	2.36,30.79
Highest	1	562		
<i>Regularly takes medicine (p=0.052)</i>				
Yes	4.27	1457	3.18	1.25,14.54
No	1	262		

^a All mistreatment included all incidents of psychological abuse and neglect. Incidents were for inner circle perpetrators (family, friends, care workers) only.

The definition was further expanded to include all mistreatment by neighbours and acquaintances (Table A5); comparable UK data is shown in Table 13.

Table A5

All mistreatment in past year by family member, friend, care worker, neighbour or acquaintance (*England only*, UKPS data)

England only

Variable	Odds Ratio	N	Standard Error	90% Confidence Interval
<i>Marital Status (p=0.017)</i>				
Single	0.97	85	0.63	0.33,2.84
Living as a couple (married or cohabiting)	1	973		
Separated or divorced	3.42	138	1.33	1.81,6.49
Widowed	1.29	526	0.35	0.83,2.01
<i>CES-D depressive symptoms (p<0.001)</i>				
Below 3	1	1322		
3 or above	2.35	399	0.60	1.54,3.58
<i>Regularly takes medicine (p=0.021)</i>				
Yes	2.74	1457	1.20	1.33,5.64
No	1	262	0.16	

^a All mistreatment included all incidents of psychological abuse and neglect. All perpetrators (family, friend, care worker, neighbour or acquaintance).

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