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Potential Risk Factors Indicating the Likelihood of Aggression and Violence in Individuals with Dementia

Results of a Systematic Review

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Overview

- Rationale for a systematic review
- Overview of Method
- Summary of Findings
- Real world application
- Proposals for further work

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Rationale

Rationale

- High social, psychological and economic cost of dementia
- Aggression a major behavioural and psychological symptom of dementia – range 33-90%
- Stage modelling approaches have not worked to predict aggression (Richie and Touchon 1992)

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Rationale

- Over 200,000 people with dementia live in residential settings in the UK
- In Wales cost is £1.4bn p.a.
- 2/3 of people live in community.
- 1 in 5 people in Wales have a family member with dementia (NaFW, 2016)
- Increase in aggression is the main factor in deciding that residential care is required (Rayner et al 2006)

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Rationale

- Need for a review of evidence re: factors predicting aggression in PWD
- Currently no standardised tool to support risk decision making
- Risk – over responding (inappropriate admission, delayed discharge) vs under responding (tragic outcomes) to aggression
- Forensic Psychology – development of structured clinical judgement tools (e.g. HCR20)
- Evidence base needed re: factors that may comprise a standardised tool in future

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Method

- This review has been conducted following 'Preferred reporting items for systematic review and meta-analysis protocols' (PRISMA-P) (Moher et al, 2015).

NIHR | National Institute for Health Research

PROSPERO
International prospective register of systematic reviews

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Potential risk factors indicating the likelihood of aggression and violence in individuals with dementia: protocol for a systematic review

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Review question

The objectives of this study are to systematically review the available literature for qualitative and quantitative data examining risk factors that indicate a potential for aggression or violence in individuals who suffer from dementia. This will include individuals in care and domestic settings.
A secondary aim will be to begin formulating a diagnostic tool to be used for predictive purposes in identifying those with dementia who may or may not pose a potential risk of aggression or violence towards others.

- Details of the protocol for this systematic review were registered on PROSPERO and can be accessed at: http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42016039847 (Clifford, Hider and McGriele, 2016).

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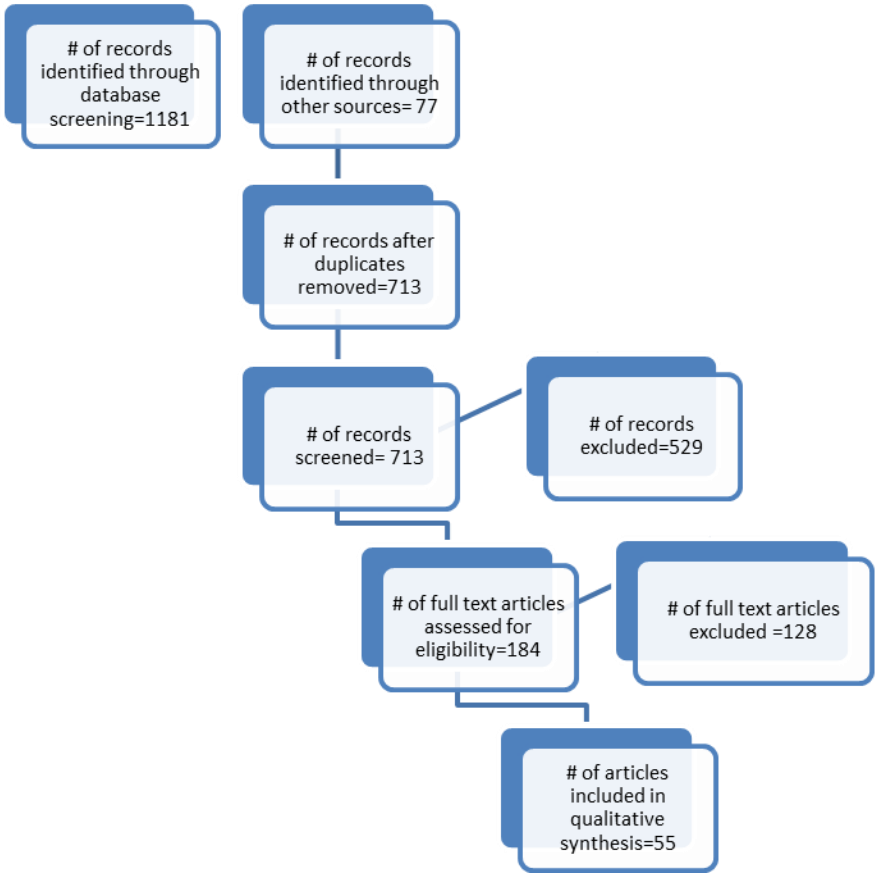
Method



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Findings

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Findings

- Eight overarching categories associated with aggression:
  - Comorbid Mental Health
  - Demographic Variables
  - Facility Characteristics
  - Health Issues
  - Communication/Interaction with Caregivers
  - Mood / Personality
  - Direct Effects of Dementia
  - Caregiver Features

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Comorbid Mental Health

	Factor	Impact	No Impact
Comorbid Mental	Psychosis/delusions/hallucinations	12	
Health	Depression	9	4
	Anti-psychotic medication	4	1
	Anxiety	1	

- Psychotic symptoms highest consistent finding
- Antipsychotic finding likely to be an artefact of treatment rather than cause
- Some inconsistency re: link with depression

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Demographic Variables

Demographic	Age	4	12
Data	Gender	9	14
	Education		6
	Married	2	4
	Ethnicity	1	1

- Level of education not associated with aggression consistently
- Gender most studied variable. Of studies that found gender to be predictive, 39% found male gender was associated

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Facility Characteristics

Facility	Lack of outdoor space	1	
Characteristics	Type of facility		3
	Lack of personal space	4	
	Time of day	2	1
	Other residents	2	
	Resource shortage	1	
	Use of restraints	1	1
	Breaking point	1	
	Recreation		2
	Physical environment		2

- 30 studies took place in hospitals/residential
- Lack of personal space most commonly found predictor
- Secure units vs residential wards – no link to aggression levels
- Recreation / physical environment not found to be predictors

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Health Issues

Health Issues	Increased testosterone	2	
	Sleep disturbance	2	
	Overall health status	4	5
	Pain	3	1
	Constipation	1	1
	Risk of injury	1	

- Pain biggest predictor
- Sleep – variable findings – one study showing reduced sleep, another increased sleep associated with aggression
- Overall health status – 5 studies showed no impact, 4 showed impact

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Communication/Interaction with Caregivers

Communication/ interaction with caregivers	Personal Care	11
	Denied request	1
	Being asked to do something/non-compliance	6
	Personal needs not met	1
	Less social contact	2

- Personal care biggest predictor
- Demand factors also large predictor
- Shows need for high focus on personal care process and communication input in dementia services

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Mood / Personality

Mood/Personality	Premorbid personality	6
	Mood	3
	Verbal aggression	3
	Frustration	1

- 6 studies examining premorbid personality all found association with aggression.
- Premorbid low agreeableness (re FFM of personality) predicted aggression
- May be interaction between personality and dementia symptoms / caregiver and facility features?

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Direct Effects of Dementia

Direct effects of dementia	Cognitive decline	13	4
	Severity of dementia	9	1
	Impact on daily living	7	1
	Communication Issues	6	
	Type of dementia		5
	Realisation of decline	1	
	Later onset	1	
	Dyspraxia	1	
	Duration of dementia		1

- No relationship between diagnostic subsets of dementia (AD, FTD, VaD, DLB) and aggression (5 studies)
- Cognitive decline and communication more powerful predictors

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Caregiver Features

Caregiver features	Caregiver negative behaviour	4	
	Caregiver job satisfaction	3	
	Lack of staff training	3	
	Permanent staff	1	
	Caregiver depression	1	
	Caregiver demographics	1	1
	Not living with spouse but with other family	1	

- Staff who respond with aggression more likely to be victims of assault
- Low job satisfaction and perceived lack of training strong predictors

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Real World Application

People with Dementia move across multiple systems; accurate clinical assessment and evidence based intervention re: violence is critical.

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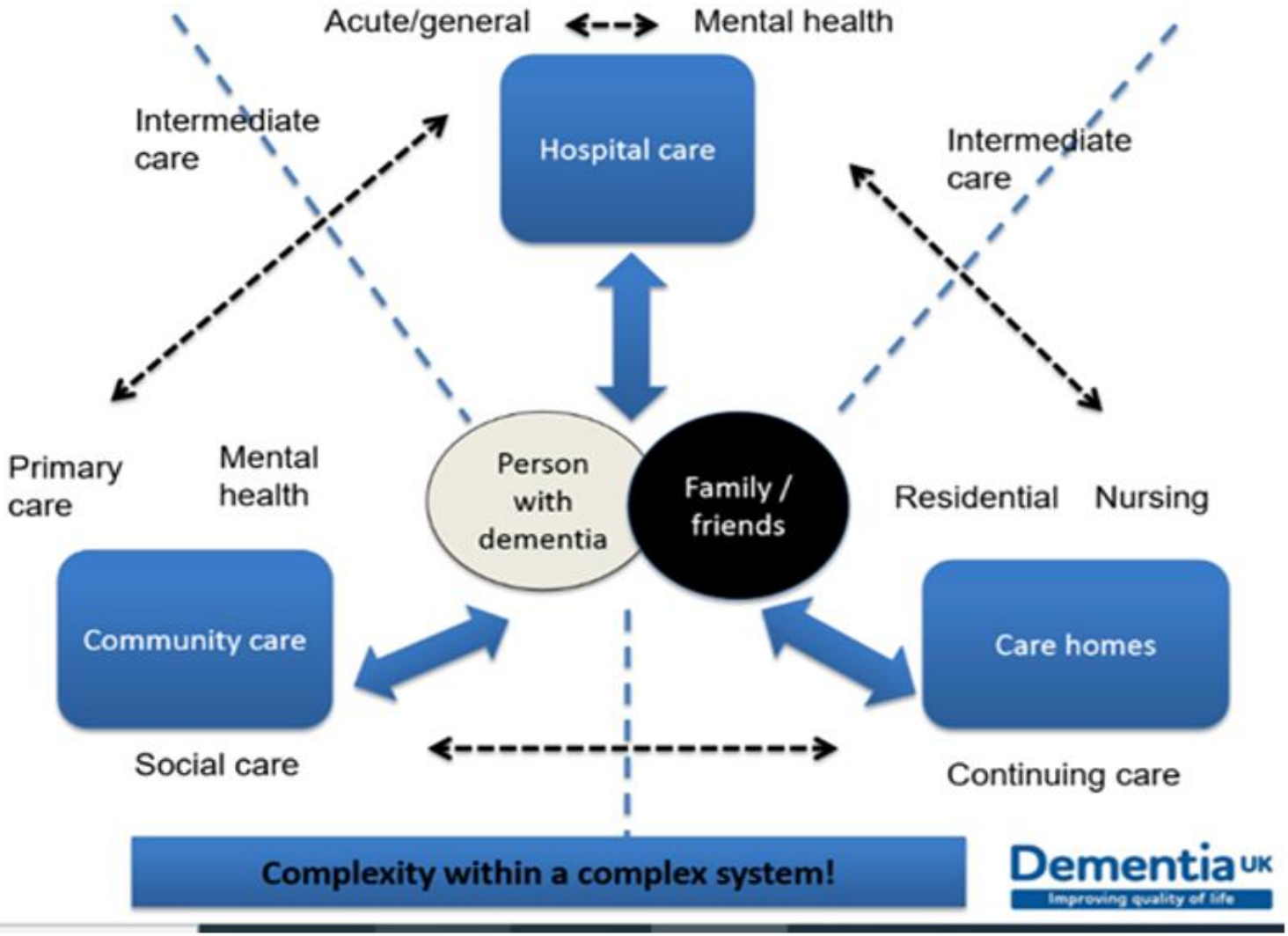
Acute/general
Mental health
Intermediate care
Hospital care
Intermediate care
Primary care
Mental health
Person with dementia
Family / friends
Residential
Nursing
Community care
Care homes
Social care
Continuing care
Complexity within a complex system!
Dementia UK
Improving quality of life

Real World Application

- Need to use evidence to ensure that appropriate evidence-based decisions are made across multiple care settings and professional decision making events
- Need to ensure that care planning accounts for all the clinical features that we know might predict aggression
- Violence and aggression causes harm and distress to all stakeholders including the person with dementia who displays aggression

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Real World Application

Case Study: Getting the right treatment at the right time to achieve the right outcome

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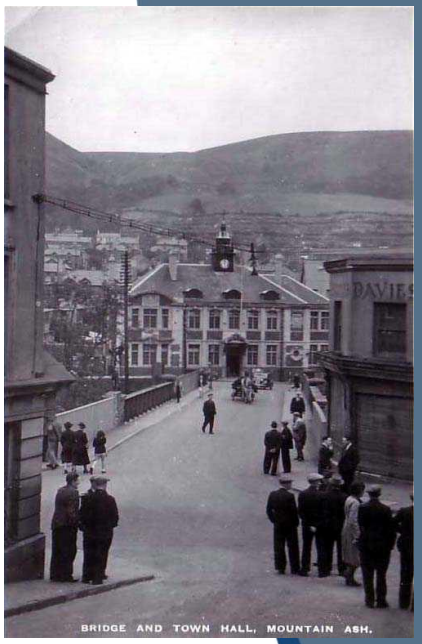
Case Study: Edward



- Edward grew up in Mountain Ash
- He had described a happy childhood – enjoying school and sport
- He passed his civil service exams after leaving school and worked as a civil servant throughout his career, retiring at the age of 65
- Edward completed his National Service during the 1950s and often described a number of traumatic experiences during this time
- Edward has two children, a wife and a brother

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Case Study: Edward

- Edward was diagnosed with Alzheimer's dementia in 2016 at the age of 75
- Edward was receiving support from secondary care mental health services due to 'aggressive outbursts'
- His relationship with his wife had broken down and his daughter has Lasting Power of Attorney
- He was placed in respite care, in order for his family to have a break
- Whilst there Edward assaulted another resident

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Case Study: Edward

- The assault was serious and Edward was moved to an acute inpatient dementia care ward
- Edward's presentation whilst in hospital was described as 'confused'. He was often disorientated to time and place
- Edward often believed he had just returned from military service and believed that other patients and residents were breaking in to his property – this was particularly prevalent during the early evening (sun downing?). At these times he was likely to become verbally and physically aggressive towards others

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Case Example: Edward

- Edward was transferred to St Peter's Hospital approximately 12 months ago
- Edward followed our 16 week assessment pathway
- During this time a variety of information was sought including:
    - completion of behaviour monitoring charts
    - clinical formulation discussion with staff

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Case Example: Edward

- This clinical formulation discussion with staff included:
  - reviewing Edward's history
  - Developing an understanding of the triggers to his 'aggressive' behaviour
  - Reviewing medication
  - Occupational Therapy assessment/ intervention – Pool Activity Level (Functional Assessment); interests and occupation – tailored activities
  - Dietetics – specific guidelines in place to manage diabetes
  - Speech and Language Therapy – communication assessment profile (CASP) – guidelines and support for staff
  - Physiotherapy – Mobilising independently

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Person-centred formulation (based on Newcastle Model)

Personality
Normally happy, kind gentle man. Enjoys others' company, very sociable. Able to make choices in relation to food preferences and dressing

Life story
Grew up in Mountain Ash
Enjoyed school and was a keen sportsman
Married aged 25 with two grown-up children ; loving father although strict at times. Enjoys listening to 70s music and reading the paper; enjoys socializing with others , 'chatting'
Being 'well dressed'

Cognitive Abilities
Diagnosed with Alzheimer's in 2016
No insight or awareness into his difficulties, although does know he is struggling to find words
Disorientated to time and place
Is unable to recognize carers or friends and family
Pool Activity Level: Sensory
Receptive and expressive language difficulties

Physical Health
2007 Diabetes (management plan in place)
2016 Alzheimer's Disease
2019 Recurrent UTI

Trigger
Confusion – believing others are intruders in his home (usually when he wakes at night and is disorientated to place)
Arguing/ raised voices (?PTSD)
Loud noises

Social Environment
Edward spends his days in communal areas . He will often position himself next to other residents and attempt to engage them in conversation.
He enjoys music and singing with staff

Medication
Epilim 500mg
Linagliptin 5mg
Lorazapam 1mg (as required)

Behaviour
Raising voice to others when they are loud/ shouting
Entering other clients' rooms
Shouting at others when they raise their voice
Attempting to hit others when Edward feels threatened

Mental Health
No past mental health history
Query PTSD?
No signs of depression or anxiety

Appearance and Emotions
Frightened
Upset / confused
Lost – can't find room
Anger

Needs:
Physical comfort – pain free
To feel safe
Occupation
Love and belonging
Contact with others – singing and chatting

Vocalisations
Rhythmic speech, limited content
Repetitive words and blowing raspberries (particularly when the words don't come)

Person-centred care

- Developing a person-centred formulation helped to identify the triggers causing Edward's distress and more importantly reduced periods of distress, allowing staff to work with Edward
- Interventions were tailored to his needs including Life Story, animal-assisted therapy (real and robotic); music therapy; validation techniques
- Edward also enjoys being with staff and feeling useful – given jobs to do…

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Person-centred care

- Edward's family have had limited involvement in his care. His wife no longer felt able to be involved and his grown up children live a reasonable distance away
- However, Edward's community mental health team have remained closely involved
- Does Edwards need to be with us still…… probably not
- "No suitable placements available close to his home"

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Proposals for Further Work

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Proposals for Further Work

- Formal meta-analysis would be helpful – however homogeneity requirements were not met
- Research revealed that quantity of studies was not great
- However, initial factor identification was helpful
- May be used to support development of clinical tools
- Importance of staff factors and culture – N.B. CQC : recommendation of use of Group Home Culture Scale

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Vision

- A structured clinical tool deriving from the evidence base in, and methods of, forensic psychology
- Used to support clinical decision-making at all points in care pathway re: violence and aggression risk assessment and management :
  - Use of hospital / residential care
  - Type of service
  - Person-centred formulation
  - Person-centred Care and Treatment planning

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Thank you

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