

HEAD BANGING AS SELF-HARM AMONG INPATIENTS WITHIN FORENSIC MENTAL HEALTH AND INTELLECTUAL DISABILITY SERVICES

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BACKGROUND TO PROJECT

- The head banging project began as an offshoot from an earlier study where we introduced routine TBI screening into our forensic ID service.
- This sparked conversation about head banging in the service, staff felt very concerned about a number of patients who engaged in this behaviour regularly. They had deep facial scarring and were felt to be deteriorating in their functioning.
- There was no current clinical guidance regarding the management of head banging behaviour, staff were distressed and implementing strategies informally, such as placing pillows between patients head and surfaces.

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Traumatic brain injury in a forensic intellectual disability population

Verity Chester , Ginny Painter, Lucy Ryan, Jason Popple, Kudzanai Chikodzi and Regi T. Alexander

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ABSTRACT

Traumatic brain injury (TBI) screening in forensic populations has been recommended, due to a high prevalence, links to specific offence profiles and poorer outcomes, such as higher rates of psychiatric disturbance, longer stays in prison, and reoffending. Research focusing on TBI among offenders with intellectual disability (ID) is lacking. This study therefore describes the implementation of TBI screening using the Brain Injury Screening Index (BISI[®]), TBI prevalence and correlates in a forensic ID service. TBI appeared under recorded in case notes, with considerably more patients self-reporting TBI. Reported causes of TBI differed somewhat to the general population, including childhood physical abuse, self-harming behaviour, and assault. Approximately one-third of injuries did not receive any treatment. Though further adaptations may be required on current screening measures for TBI in offenders with ID, screening can provide valuable information, contributing positively to individual patient therapeutic and risk formulations.

ARTICLE HISTORY

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KEYWORDS

Learning disability; traumatic brain injury; head injury; secure; forensic mental health



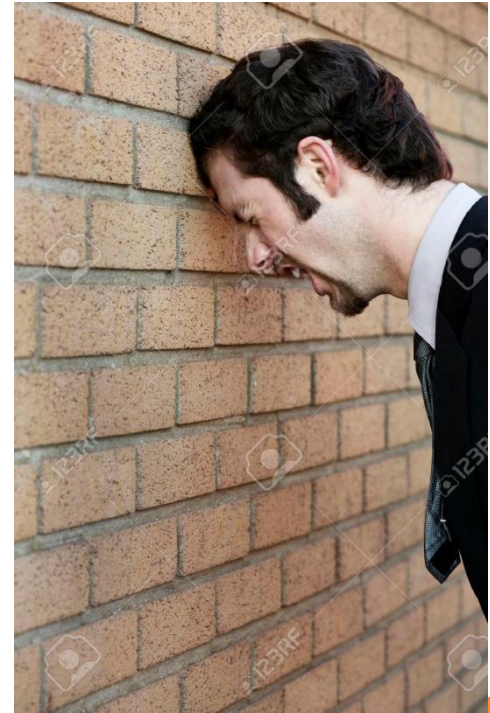
OVERVIEW OF PRESENTATION

- What is Head Banging?
- What does the research say about Head Banging?
- Possible Causes
- Head banging in Forensic Services: Research project
- Treatment / Management Approaches
- Conclusions



WHAT IS HEAD BANGING

- Violent rocking of the body and shaking or knocking of the head, by children or mentally disordered adults.



BACKGROUND / LITERATURE

DEPARTMENT OF PUBLIC WELFARE

TO: All Medical Services Division Institutions
Attention: Medical Directors
Administrators
Social Services Directors
Nursing Services Directors
Task Force

May 2, 1966

FROM: David J. Vail, M. D.
Medical Director

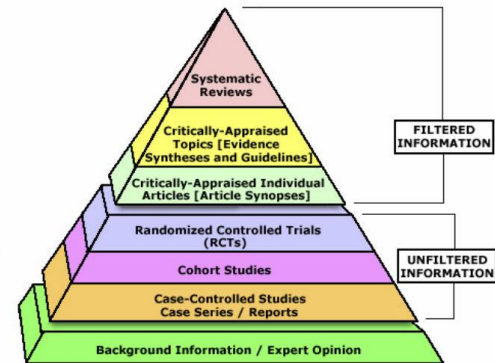
SUBJECT: Articles from Roche report regarding mental retardation

I bring to your attention these interesting articles from the April 15, 1966, issue of the Roche report, Frontiers of Hospital Psychiatry. They are about projects concerning treatment of the mentally retarded.

* * * * *

Ending the hopelessness surrounding "headbangers"

One of the most difficult problems faced in institutions for the mentally retarded is the management of a group of children who are persistently and violently self-destructive, striking their heads and faces against solid objects and with their fists and knees. Commonly called "headbangers," these children generally have exhausted parents and patient staff members and often are restrained and isolated in the "back wards" to prevent further self-destruction. Frequently, an attitude of hopelessness towards these children prevails. However, recent studies at Sonoma State Hospital at Eldridge, Calif., indicate that these children are not as resistant to help as was once believed.



BACKGROUND LITERATURE

- “Head banging” has been described as a common form of self-harming behaviour, occurring in between 21%–44% of individuals who self-injure (Klonsky, 2007).
- It is a particular issue among individuals with intellectual disabilities (King, 1993), particularly severe to profound ID.
- Fee & Matson (1992) describe a continuum of self-harm behaviours, ranging from mild (less directly damaging) to severe (life-threatening). Head banging is placed at the severe end of the continuum.



A PROFILE STUDY OF 50 PATIENTS WHO ENGAGED IN HEAD BANGING AT FARIBAULT STATE HOSPITAL, MINNESOTA (BRUHL AND GEYHART, 1970)

- Residents showed not only headbanging but also other forms of self-injury like slapping, biting, scratching, and pulling own hair.
- They were more disturbed and restless.
- More inward-aggressive than a matched control group of non-headbanging persons.
- Against all expectations, 30 residents began headbanging at home, 15 in foster or private boarding homes and only 5 in State Institutions. This disproves the common belief that headbanging is a product of institutionalization.



POSSIBLE CAUSES

- Miron (1972) profoundly retarded individuals have a very limited behavioral repertoire. Headbanging is one of the few behavior patterns left to express of emotion and communication.
- SIB might be associated with a diminished perception and integration of sensory stimuli (including pain) on a aberrant neuro-physiological basis, since it is associated regularly with such organic disorders as Lesch-Nyhan syndrome (hyper-uricemia) and occasionally with Cornelia de Lange and Down's syndromes (Green 1967, Bachman 1972; Miron 1974).



POSSIBLE CAUSES

- Wilson (1976) stated that in severe mental retardation, "they are unable to be aware of any stimuli coming from the outside and this generates an intolerable emotional condition. SIB is an effort on their part to overcome the nothingness of their situation."
- Only method of self-harm available in restricted environments where items used for other forms of self harm are restricted (Sarkar, 2011).
- Attention (McClellan, Grey and McCracken, 2007).



WHAT ARE THE RISKS ASSOCIATED WITH HEAD BANGING?

- Head banging is associated with a number of negative outcomes:
 - Cuts
 - Bleeding
 - Infection
 - Retinal detachment
 - Blindness
 - Bruises
 - Lacerations
 - Scars of face and scalp
 - Permanent injury to ears and hearing and speech.
- (Tate & Baroff 1966; Dizmang 1957; Miron 1971; 1973; Stein & Niehaus, 2001)



PUBLISHED CASE STUDIES (1)

- Hof and colleagues (1991) described a woman with autistic spectrum disorder who engaged in head banging behaviour, knocking her head incessantly against the walls, bed sides or persons.
- Began aged 7 years old, and continued until her death aged 24.
- Her brain was examined at autopsy.
- The authors observed gross cerebral atrophy, neocortical neurofibrillary tangles (NFT), one of the neuropathological markers of Alzheimer's disease and other neurodegenerative disorders, in the perirhinal and entorhinal cortex, amygdala and in the prepiriform and orbito-frontal cortex.
- **Such presentations have also been observed in brains of individuals who had experienced repeated head injuries such as boxers.** The authors concluded that chronic head banging may cause long-term brain lesions which could cause progressive deterioration.



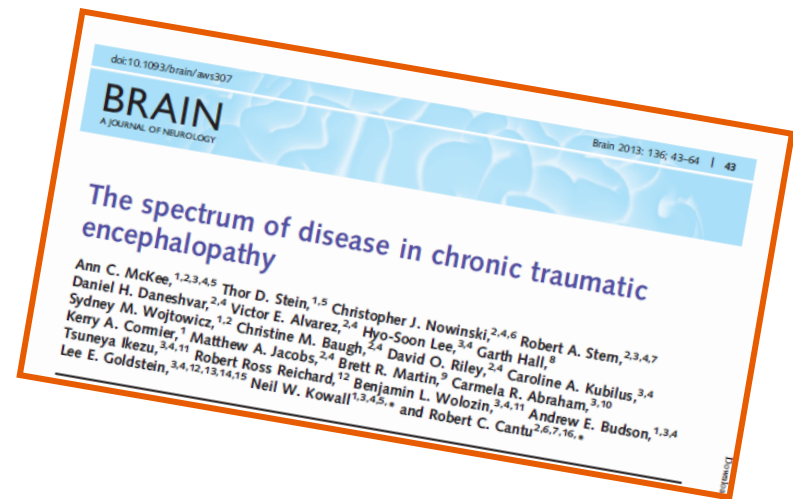


CASE STUDY 2

- Geddes, Vowles, Nicoll, & Révész (1999) examined the brain of a young man diagnosed as “mentally subnormal”, autism and epileptic, with a long history of head banging.
- **At autopsy, this patient’s brain displayed evidence of recent and chronic traumatic brain damage, in the form of haematomas producing mass effect, and cerebral swelling, and terminal hypoxia.**



CASE STUDY 3



- McKee et al (2013) analysed post-mortem brain of an individual who engaged in self-injurious repetitive head-banging behaviour.
- This individual had developed chronic traumatic encephalopathy, a progressive tauopathy that occurs as a consequence of repetitive mild traumatic brain injury.
- This disorder is clinically associated with irritability, impulsivity, aggression, depression, short-term memory loss and heightened suicidality that usually begin 8–10 years after experiencing repetitive mild traumatic brain injury (McKee et al., 2009). Long term consequences include severe neurological changes including dementia, gait and speech abnormalities and parkinsonism.



DISTRESS TO FAMILIES / CARERS

- Aside from the short term and long term impacts on patients, it also has a significant impact on caring staff:
 - “Headbanging represents one of the major behavior disorders among the severely mentally retarded... it terrorizes both the afflicted individuals and the observers who feel alarmed and helpless to cope with the situation.” (Fielding, 1976)



HEAD BANGING IS:

- Common
 - Pervasive across the lifetime
 - Linked to numerous negative outcomes
 - Distressing to staff
-
- Despite this, there has been little research on the prevalence, correlates, function, short and long term effects, and short and long treatment of individuals who engage in this behaviour.



CURRENT RESEARCH


- We therefore designed a project to examine the phenomenon of head banging in forensic services.

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Head banging as a form of self-harm among inpatients within forensic mental health and intellectual disability services

Verity Chester  and Regi T. Alexander

St Johns House, Palgrave, UK

ABSTRACT

Introduction: 'Head banging' is a common form of self-harm, linked to numerous negative outcomes including significant brain damage. However, little research has investigated head banging behaviour and its correlates in clinical populations. **Method:** Head banging episodes were identified from the incident records ($n = 5417$) of two inpatient forensic services (one intellectual disability and one mental health), using relevant search terms. Rates were compared between individual patients, by gender, diagnosis and level of security. Incident accounts were analysed qualitatively using thematic analysis. **Results:** Head banging incidents occurred approximately every 3 days in each service, with 229 incidents recorded in 1 year. Individual patient rates varied widely, ranging from 1 to 38 incidents within 1 year. Women, and patients in higher levels of therapeutic security, were significantly more likely to engage in head banging. Qualitative incident reports indicated that head banging was associated with mental distress, anger and psychotic experiences. **Discussion:** Head banging occurs frequently in forensic services, and has documented associations with traumatic brain injury in affected individuals, thus negatively impacting progress through the care pathway and treatment outcomes. Further research should investigate short- and long-term management strategies and treatment approaches, in order to minimise harm.

METHOD

Participants / Setting

- Two inpatient forensic mental health services in the East of England;
 1. **Forensic intellectual disability (FID)** - 98 beds across medium secure, low secure and locked rehabilitation wards.
 2. **Forensic mental health (FMH)** - 155 beds, across acute, locked rehabilitation, low and medium secure, and open wards.
- Patients admitted to both services are detained under the Mental Health Act (1983) for England and Wales.

	Beds		
	Total	FMH	ID
Whole sample	254	155	98
Gender			
• Female	74	41	33
• Male	170	114	56
• Mixed	9	0	9
Diagnosis			
• MI / PD	135	135	0
• ID	118	20	98
Level of Security			
• Open	16	16	0
• Acute	12	12	0
• Locked	62	44	18
• Low	81	33	48
• Medium	82	50	32

METHOD

Procedure

- Incident records over a one year timeframe were searched for head banging behaviour, using terms:

Head bang / ed / ing	Head butt / ed / ing
Hit / Hitting him / herself	Punch / punched / punching him / herself
Banged his / her head	Hit his / her head

- Records highlighted by this process were read. Any accidents etc. were excluded from further analysis.

Analysis

- The prevalence of head banging behaviour was examined, and compared between the following groups; gender, diagnosis, and level of security.
- Records scrutinised for information;
 - patient presentation during the incident,
 - incident location
 - surface
 - reported injuries
 - staff responses to the behaviour.

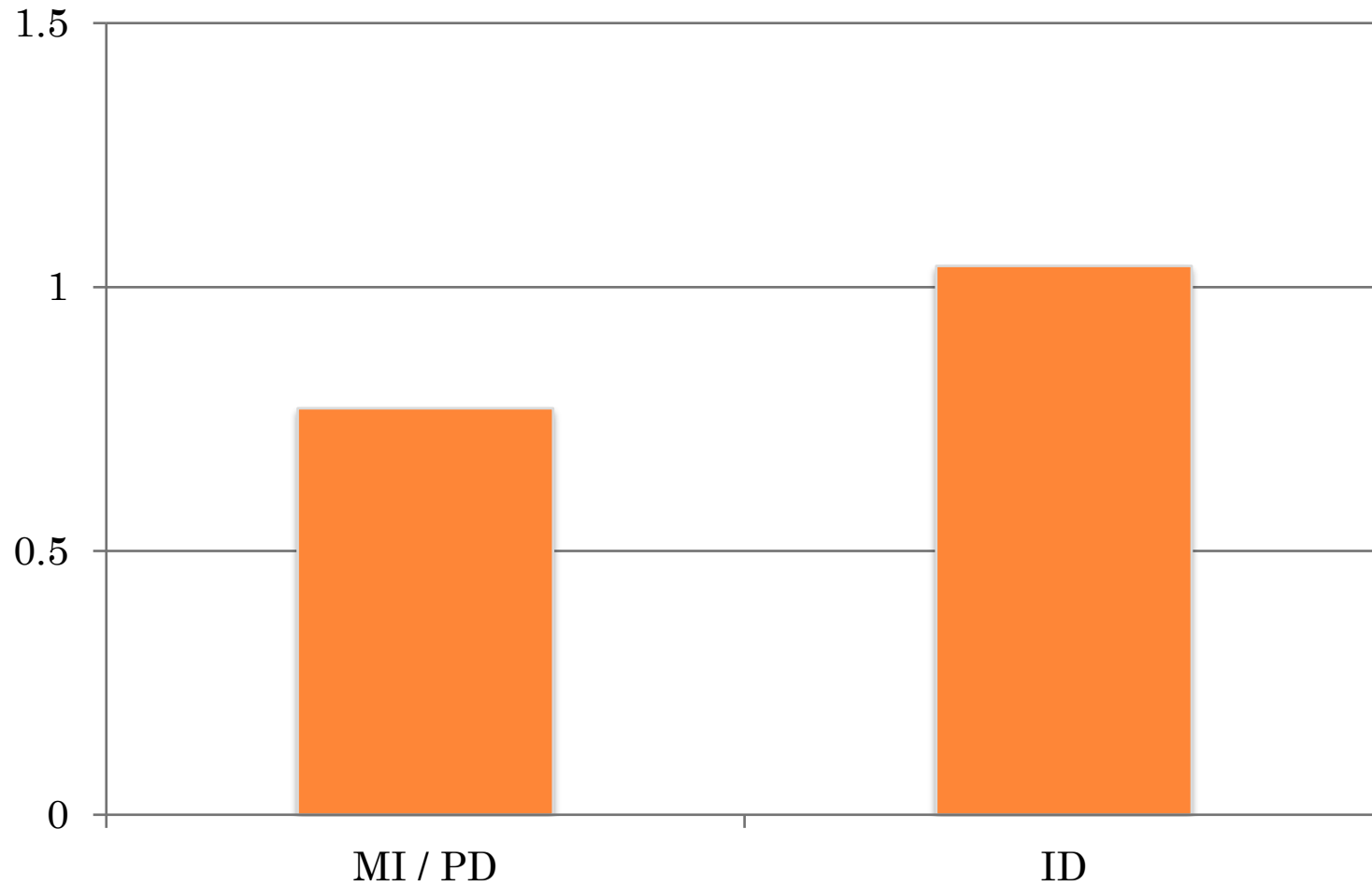


RESULTS

- **229** incidents of head banging during the year.
- Occurring approx. **once every three days** in each service.
- **43** patients engaged in head banging
- Some differences between groups...



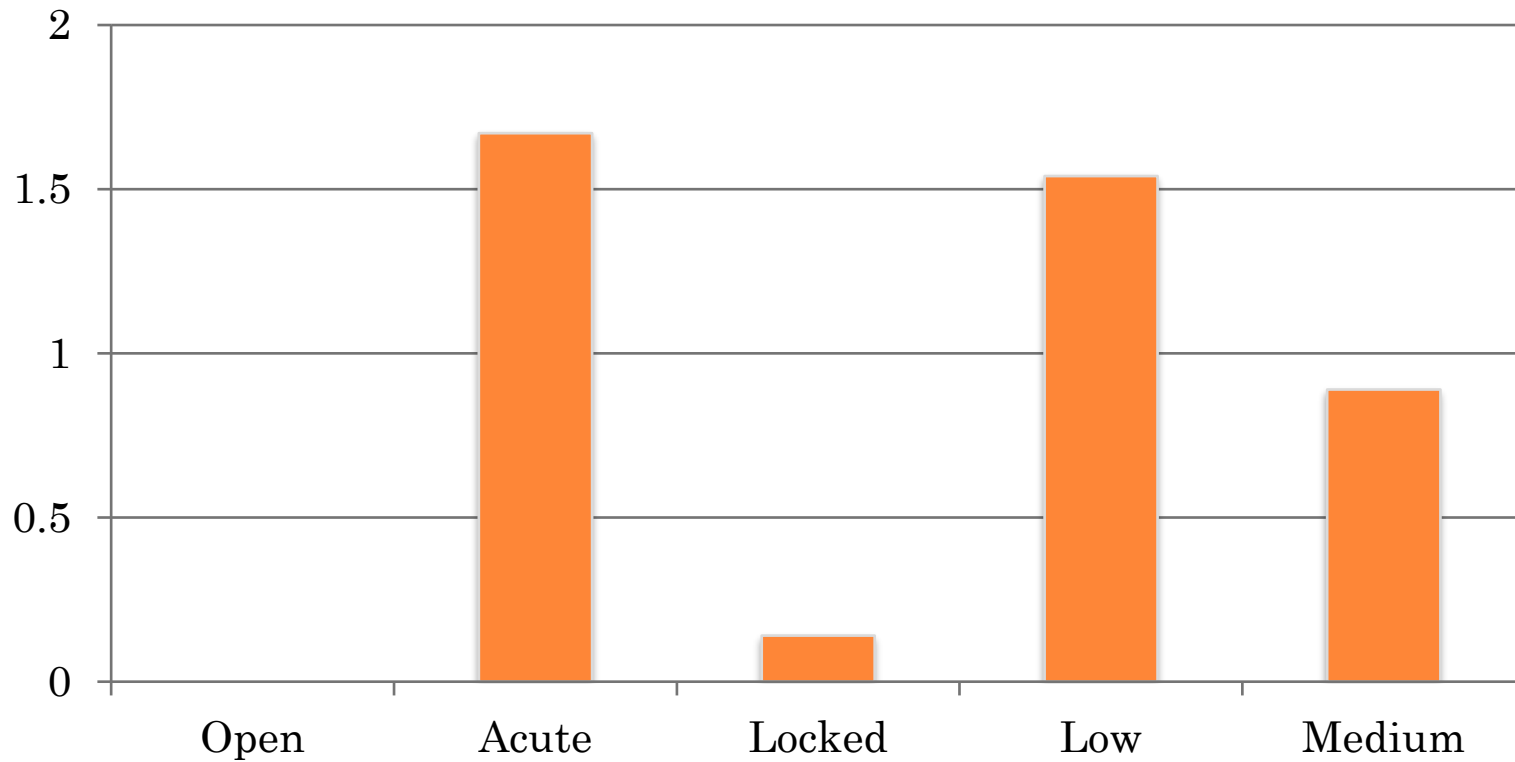
RESULTS



Slightly more common in ID wards.



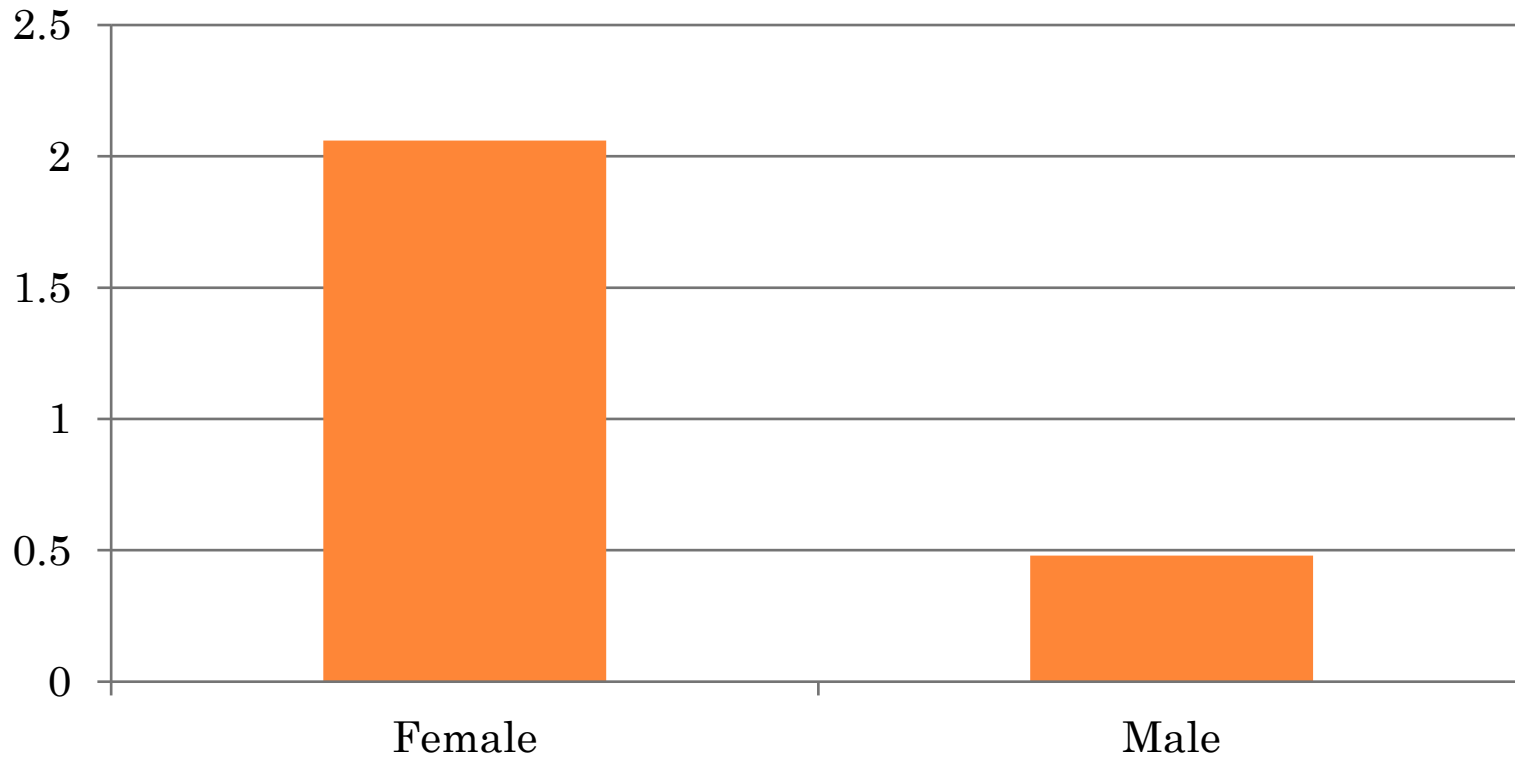
RESULTS



*Significantly affected by individual patient rates.



RESULTS



4x higher among women.



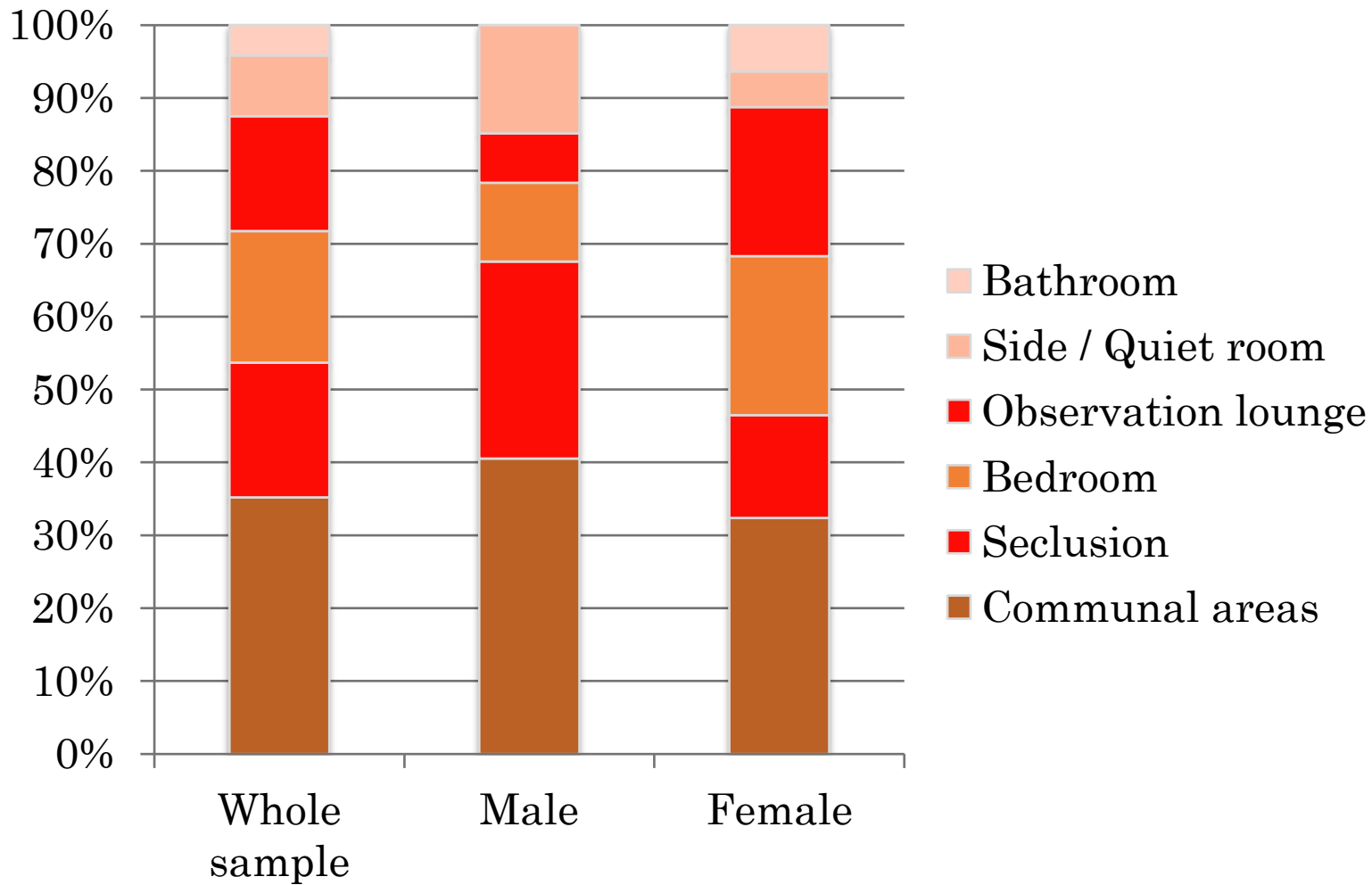
INDIVIDUAL PATIENTS

Whole sample	
n Incidents	n Patients
1	17
2	5
3	2
4	3
5	6
6	2
8	1
9	1
10	1
16	1
24	1
34	1
38	1

There was significant variability between patients in the frequency they exhibited this behaviour in the year, **range 1 – 38**.



LOCATIONS



INJURIES

- Injuries were reported in 49 of 229 incidents.
- These included:
 - Headaches
 - A seizure
 - Reopening old forehead wounds
 - Bruising
 - Bleeding



PERCEIVED REASONS

Distress

- Incidents of head banging often occurred alongside other types of self-harming behaviour, such as ligature tying, cutting, swallowing, punching and kicking doors and walls.
- *“While attending community meeting patient became upset at the news staff was leaving. Patient went to the computer room and began to bang her head”.*
- *“Following her ward round patient was upset and went into the resource room and began to bang her head off the wall.”*



ANGER

- Patients were often also displaying verbal abuse, shouting, and threats; clenching and shaking fists, removing / damaging clothing, throwing items / furniture, slamming doors and furniture, banging furniture, in incidents which head banging took place.
- *“had tried to intimidate staff member agency staff on the last request by head-butting his bedroom door then walking near him and saying he was not scared of him.”*
- *“he was continuing to make threats to staff and saying he was king pin of the ward”*
- *“had tried to intimidate staff member agency staff on the last request by head-butting his bedroom door then walking near him and saying he was not scared of him.”*
- *“At about 17.07 agency staff has come to the observation lounge, where patient was seen to be punching the walls and continuing to be verbally aggressive towards staff shouting "When I get out of here I will fucking kill you", "I am going to fucking smash your fucking head in", it was then decided that at 17.08 that patient would be secluded, whilst locking the door, patient has then come to the window and has headbutted the window of the seclusion room door whilst continuing to be verbally aggressive.”*



PSYCHOTIC EXPERIENCES

- *“Patient ran to nursing office door in an aggressive outburst as she believed a doctor in the office had killed her family. Staff put patient on holds and removed her to the side room. Patient began to hyperventilate and put herself on the floor and began to bang her head on the floor”*
- *Patient became paranoid regarding cameras being in place in the bins, ran towards bin in the rec area and tipped bins upside down. When attempts were made to de-escalate, patient lay on the floor and attempts made to bang her head.*
- *At around 18:28, patient suddenly got up off the obs chairs and started clutching her head, shouting and screaming. She then began banging her head against the wall. She was placed in holds and verbally de-escalated into the chair. she reported to staff that she was hearing voices, support and reassurance was given.*



OTHER

- *"Is like head-butting someone", staff attempt to talk to him and stop from self-harming however he responded saying "I don't care if I will get brain injury, doctor told me I'm going to Ashworth so I have got nothing to lose".*
- *"Patient was observed to bang his head on the window, stating he was going to blame the resulting wound on staff, he was offered support and was also offered PRN but declined."*
- *"Patient began banging his forehead against the seclusion window stating that "I will get the doctor to take a picture of this tomorrow". I am going to blame staff for causing these injuries."*



STAFF RESPONSES / MANAGEMENT*

- **Restrictive Interventions – Obs, Seclusion, Physical Intervention**
- **One to one support / Distraction / Reassurance**
- **PRN – Psychotropic and Analgesic**
- **Wound care / Ice packs**
- **Paramedics called**

- Responses appeared quite inconsistent, e.g.: “Pharmacological interventions were not used due to the possibility of patient reacting to this following banging her head.”

- “Staff placed hand on patient head protect from head banging”.

- “During this time patient banged her head against the floor until this was prevented and a pillow was used to prevent further harm, due to the positioning of patient head.”

- “Patient while being nursed on level 3 observations expressed to staff that she was having an overwhelming urge to bang her head. She requested to use the observations lounge as “it was a better place for her to be as there were no sharp corners”. At 05:55 NIC staff and staff entered the observations lounge as patient had ran at the wall and began banging her head.”



CONCLUSIONS OF RESEARCH

- This is the first study to systematically examine the prevalence of head banging behaviour as a form of self harm.
 - It has a number of drawbacks, such as being reliant on staff interpretations of causes for behaviour. Staff responses to head banging were difficult to disentangle from response to overall incident.
- It highlights that this behaviour is not limited to people with severe–profound ID, and is also observed in people with mild ID, and people with mental illness and personality disorder.
- Head banging occurs frequently in forensic services, slightly higher among those with ID, and considerably higher among women.
- Head banging is likely to negatively impact progress (or lack of) in treatment and treatment outcomes.



HOW IS HEAD BANGING BEING MANAGED?

- There is a huge gap in clinical guidance regarding the short and long term management head banging with our populations in various settings.
- Some services are attempting to develop sensible policies and procedures around this.



TREATMENT / MANAGEMENT

PBS

- McClean, Grey and

- Sean was taught to press a bell as a more appropriate form of communicating (stay)

This is just one example of PBS utility, but it likely that functional analysis regarding the behaviour for that individual is likely to hold promise in directing interventions.

SARKAR (2011)

Situation	Risk level	Response
Gentle and infrequent head banging.	Level 1 <ul style="list-style-type: none"> • Lethality low • Intentionality low • Inimicality low 	Support patients in cleaning wounds Carried out by junior nursing staff under supervision of nurse in charge.
Head-banging gentle and infrequent.	Level 2 <ul style="list-style-type: none"> • Lethality low • Intentionality low • Inimicality moderate 	Involve medical staff and senior nursing staff to treat injury and provide support to patient and other patients.
More intense head banging.	Level 3a <ul style="list-style-type: none"> • Lethality low • Intentionality moderate • Inimicality moderate 	Activate panic alarms to secure additional staff for support and advice. Senior nurses and medical/primary healthcare help sought. Senior nursing duty coordinator and charge nurse jointly manage the situation.
Repetitive head banging leading to haematoma.	Level 3b <ul style="list-style-type: none"> • Lethality moderate to high • Intentionality high • Inimicality moderate to high 	On occasions, especially when fractures are suspected, 999 calls made and A&E trips organised. In such cases duty consultant / responsible clinician informed. Ward managers informed if available, and senior nursing managers involved.
Head banging severe, intense, repetitive with patient beginning to stagger.	Level 4 <ul style="list-style-type: none"> • Lethality high • Intentionality high • Inimicality high • Other risks low 	Senior nursing input. Medical and primary healthcare staff always involved. Low threshold for requesting 999 ambulance support for A&E transfer.

- With the introduction of new psychiatric treatments, the padded room became a redundant tool in the mental health profession.
- Padded rooms provide safety and seclusion for those with variable challenging behaviours and special needs. Rooms may be fully padded, with bespoke wall and floor pads covering all surfaces in the room, or safe areas and spaces created within larger rooms.
- Typically, the rooms are used as chill-out, quiet, calming and de-escalation rooms. The protective wall and floor pads help protect clients from impact injuries caused from collision with hard surfaces. In addition, the safe areas or padded rooms may also form the basis for the development of a sensory room.
- We have installed projects for NHS and Private Hospitals, Secure Units, Care Homes, Respite Centres and Schools.




ANY QUESTIONS / COMMENTS?

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