



**DELIBERATE INGESTION OF FOREIGN BODIES AS A FORM OF
SELF-HARM AMONG INPATIENTS WITHIN FORENSIC MENTAL
HEALTH AND INTELLECTUAL DISABILITY SERVICES**

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PRESENTATION OVERVIEW

❖ Background

❖ Current study and findings

❖ Discussion



Figure 3 CT of the neck showing the right limb of an open safety pin extending through the posterior wall of the pharynx and lying just 7 mm away from the internal carotid artery.

BACKGROUND

- ❖ The ingestion of foreign bodies (FB) is a less frequently encountered method of self-harm.
 - ❖ Less rare in our clinical practice??
- ❖ Research on this topic is very limited. But a number of case reports / series demonstrate that FB ingestion is a significant presenting issue in a range of clinical settings.
- ❖ FB ingestion is most frequently observed in the paediatric population, where it peaks between the ages of 6 months to 6 years and is primarily accidental.
- ❖ In adulthood, it is more likely to be a manifestation of self-harm, observed in:
 - ❖ People with psychiatric disorders (including borderline personality disorder, psychosis, obsessive-compulsive disorder and substance misuse disorders).
 - ❖ People with Intellectual Disability (ID)
 - ❖ Prison settings

BEHAVIOUR FUNCTIONS

- ❖ Research examining the perceived function of FB ingestion is limited. This understanding is imperative, as this distinction may guide the clinician toward a more informed therapeutic plan by determining the motivational drive behind the observed behaviour.
- ❖ Patients have reported:
 - ❖ their behaviour as “cutting from the inside”
 - ❖ momentary feeling of relief from psychiatric symptoms

BEHAVIOUR FUNCTIONS

- ❖ Authors have suggested:
 - ❖ the possible role of Somatic Disorder
 - ❖ Self-punishment
 - ❖ The punishment of others
 - ❖ Command hallucinations
 - ❖ FB ingestions occurs when access to 'usual' methods of self-harm is denied.
 - ❖ Secondary gain - presenting the opportunity to leave the institution, or drug / contraband smuggling.
- ❖ **While there may be some unique characteristics of those who intentionally swallow foreign objects, they appear share many features in common with patients who engage in more commonly recognised forms of self-harm.**

RISKS

- ❖ FB ingestion and the consequent surgical interventions are associated with a number of risks to physical health and life.
- ❖ One study examining foreign object ingestion reported that this phenomenon may account for as many as 1500 fatalities per year in the United States.
- ❖ Risks include:
 - ❖ Perforation
 - ❖ Laceration
 - ❖ Impaction
 - ❖ Abscess
 - ❖ Fistula formation
 - ❖ Post-surgical infection
 - ❖ Bezoars (a solid mass of indigestible material which sometimes causes a blockage)

MANAGEMENT

- ❖ FB ingestion presents specific clinical challenges in treating and management.
- ❖ Particularly due to the lack of research literature to guide practice, relative to other forms of self-harm.
- ❖ Much of the literature on FB ingestion is written from a surgical or gastroenterological perspective, focusing on complication rates and surgical techniques for removing the object, overlooking important areas like patient intentions, psychological meaning, or psychopathology.
- ❖ Best practice guidelines for patients with psychiatric disorder and/or ID, whom are also more likely to present repeatedly are lacking.

MANAGEMENT CONTINUED

- ❖ It is often stated that the majority of ingestion cases (approximately 80-90%), result in spontaneous passage through the gastrointestinal (GI) tract
- ❖ 10-20% require a non-operative intervention such as an endoscopy, and <1% need surgical intervention due to obstruction, perforation, or haemorrhage.
- ❖ While symptomatic patients tend to present with clinical signs, such as pharyngeal discomfort, dysphagia, pain, vomiting, upper and lower GI bleeding, or acute abdomen, **it can be difficult to assess which patients are likely to fall into which category, and therefore all patients must usually be seen and assessed by the Accident and Emergency department (A and E).**

MANAGEMENT

- ❖ Detection of FB ingestion can be difficult, and relies on either a second party directly observing the behaviour, or on patient self-report.
- ❖ Delays in intervention in cases of FB ingestion because of the lack of patient consent for diagnostic and treatment recommendations (Klein, 2012).
- ❖ Some patients can't give an accurate medical history of ingestion, and so there is a reliance on other methods of detection, such as:
 - ❖ hand-held metal detectors, which have the drawback of only detecting objects containing metallic components
 - ❖ radiography, that can detect and localize only radio-opaque FB and are associated with exposure to ionizing radiation (Klein, 2012).
- ❖ Other complications have been noted, such as further self-harm on the post-operative site (Dyke et al., 2014).

MANAGEMENT

- ❖ Atluri et al. (2012) suggested that this lack of effective preventative strategies often leads to widespread feelings of powerlessness and frustration among the treating team.
- ❖ Issues have been described from “restrictive” approaches, using intensive nursing supervision and use of the Mental Health Act 1983, which appeared to be counterproductive, with further episodes of self-harm, and increased anxiety in nursing and medical staff (Dyke et al., 2014).
- ❖ Instead, subsequent approaches avoided restrictive interventions, and focused instead on identification of negative emotions and enhancing coping mechanisms.

AIMS

❖ In an attempt to further understanding of FB ingestion as a form of self-harm, this study will examine its incidence, correlates, and service responses in inpatient forensic mental health and ID services.

METHOD

Participants / Setting

❖ Two inpatient forensic mental health services;

1. one a forensic ID service
2. forensic mental health (MH) / personality disorder (PD) service

	Beds		
	Total	MH / PD	ID
Whole sample	253	155	98
Gender			
• Female	74	41	33
• Male	170	114	56
• Mixed	9	0	9
Diagnosis Category			
• MH / PD	135	135	0
• ID	118	20	98
Level of Security			
• Open	16	16	0
• Acute	12	12	0
• Locked rehab	62	44	18
• Low	81	33	48
• Medium	82	50	32

METHOD

Analysis

- ❖ Descriptive data is provided for FB items, reported injuries, and staff responses to deliberate FB ingestion behaviour.
- ❖ Statistical - The incidence of FB ingestion behaviour was compared between the following groups:
 - ❖ Gender
 - ❖ Diagnosis (MH / PD vs. ID)
 - ❖ Level of security

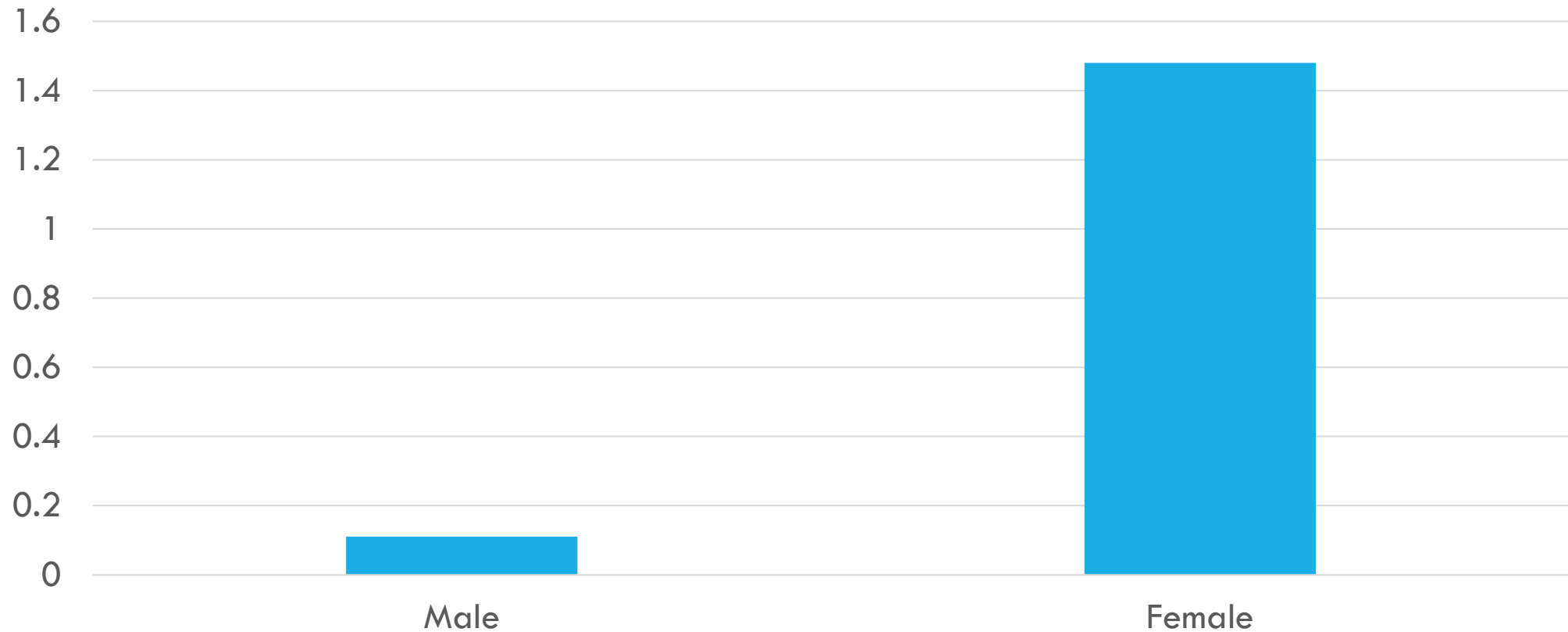
Procedure

- ❖ Incident records were accessed for this study.
- ❖ 5417 incident records over a one year timeframe were searched for FB ingestion behaviour, using terms:
 - ❖ Swallow/ed/ing
 - ❖ Ingest/ed/ing
- ❖ Incidents were read and screened against the inclusion criteria. Some incidents were excluded at this stage, which related to the ingestion of medication.
 - ❖ The study met criteria for service evaluation, not requiring approval from a NHS Research Ethics Committee (Health Research Authority, 2017).

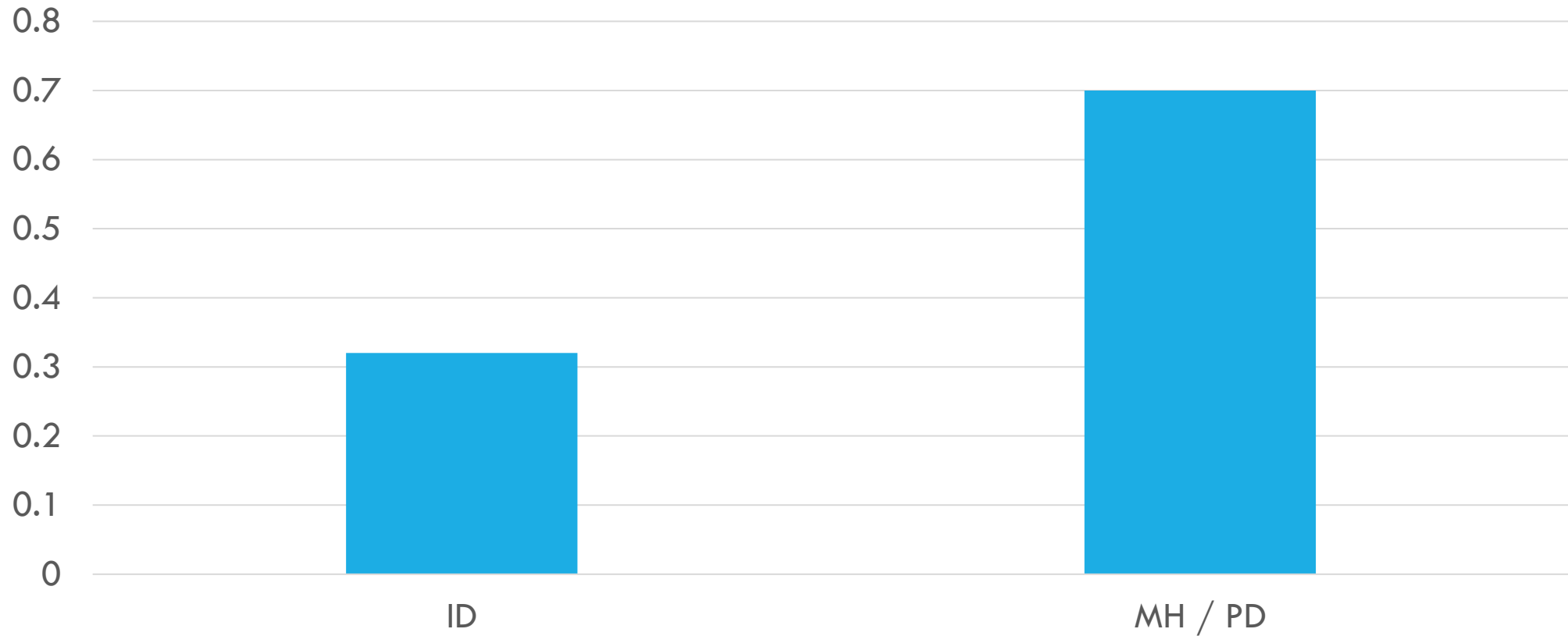
RESULTS

- ❖ There were 133 recorded incidents of FB ingestion during the one year timeframe, one incident every 2.7 days across the study population.
- ❖ The 133 incidents were accounted for by 27 patients, 22 women and five men.
- ❖ Average of 4.9 incidents per patient, range 1 - 24.

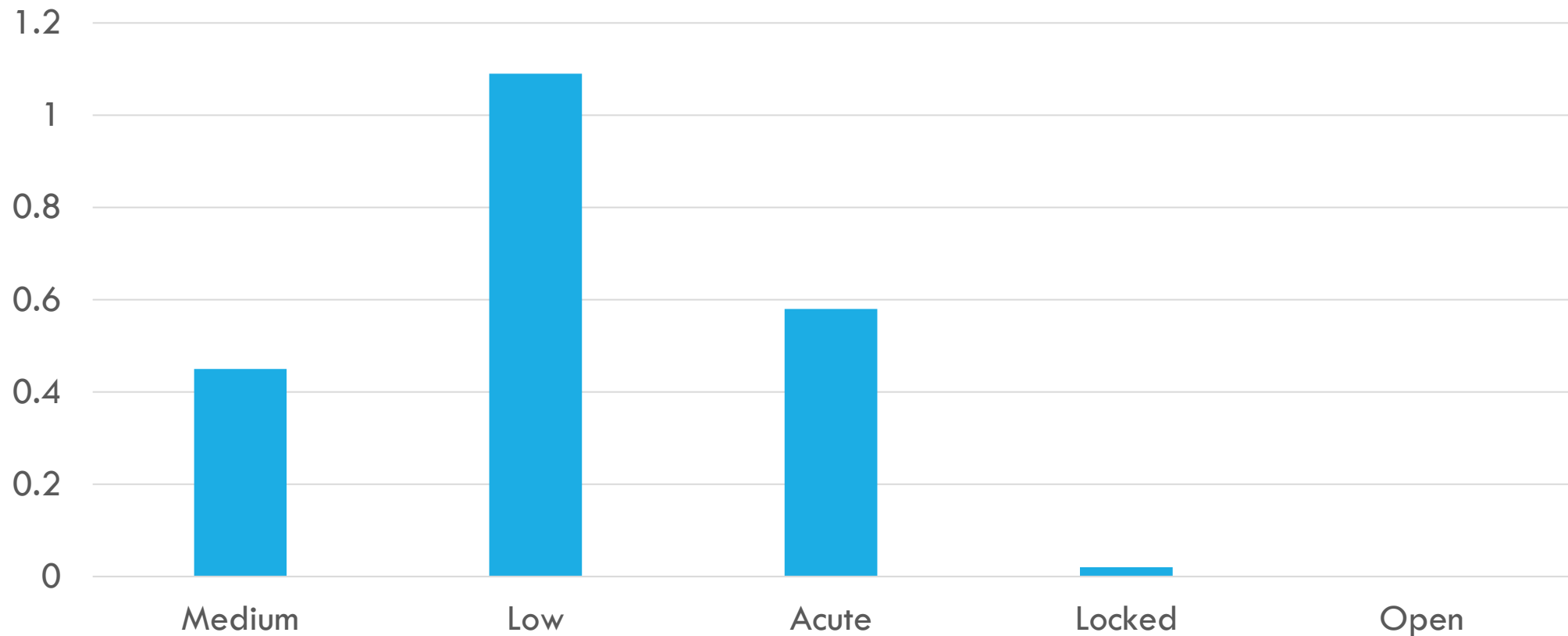
GENDER - SIGNIFICANT



DIAGNOSIS — NON-SIGNIFICANT



LEVEL OF SECURITY - SIGNIFICANT



ITEMS SWALLOWED

Item	N
Food Wrapping / Cutlery / Crockery	24
Batteries	21
Clothing / Jewellery / Accessories	20
Pens	18
Personal hygiene	18
Miscellaneous plastic / metal / paper	27

CD / DVD	3
Coins	3
Games console items	2
Furniture	2
Medication	2
Cigarette packaging	2

INJURIES

Injuries

- ❖ Considerations regarding injuries or other risks to health were described in 46, or 35% incident reports.
- ❖ Reported injuries or health risks included choking, coughing up blood, chest or stomach pain, and vomiting.
- ❖ A further identified risk to health came from patients re-ingesting items that had already passed through their digestive tract, on some occasions repeatedly. Risks of consuming faecal waste include salivary gland infection and gastrointestinal disorders caused by parasite infestation.

STAFF RESPONSES

Staff response	n
One to one / deescalation	62
Vital signs check	23
Physical intervention	22
Increased observations	19
Items removed	19
Backslaps	12
Relocation to low stimulus / side room	12

Pro re nata medication	12
Doctor / hospital telephone	11
Doctor / hospital attendance	9
Room search	6
Injury assessment	4
Personal search	4
Seclusion	4
First aid	4

DISCUSSION

- ❖ The results indicate that FB ingestion is a relatively common phenomenon in this patient group, with a total of 133 incidents over a one year period, representing approximately one incident every 2.7 days across the study population.
- ❖ However, these 133 incidents involved only 27 patients; with an average of 4.9 incidents per patient.
- ❖ This finding supports previous work suggesting that FB ingestion as a form of self-harm often manifests as a recurrent phenomenon.
- ❖ Patients who repeatedly engage in ingestion of foreign bodies are putting themselves at increased risk of the related harms associated with this behaviour.

DISCUSSION – DRAWBACKS + STRENGTHS

Drawbacks

- ❖ This was a retrospective service evaluation, using anonymised data from an incident database.
- ❖ Limited the examination of the individual clinical characteristics of patients.
- ❖ There may have been further incidents not reported by patients or identified by staff.
- ❖ As the study was completed in only two services, the level of generalisability is not clear.

Strengths

This work adds to the relatively scarce evidence base in this area, as well as generating suggestions for future research.

DISCUSSION - GENDER

- ❖ A retrospective chart review of 159 patients by Grimes, Spier, Swize, Lindstrom and Pfau (2013) found FB ingestion to be significantly associated with male gender, even when adjusted for other variables via multivariable logistic regression.
- ❖ However, their study population represented patients presenting to the local hospital emergency department, and the prevalence of diagnosed psychiatric disorder was only 21%, significantly less than in our study population.
- ❖ A meta-analysis by Bresin and Schoenleber (2015) found that females were more likely to engage in non-suicidal self-injury in general, and that this difference was greater for inpatient rather than community-based samples.

DISCUSSION – MH VS. ID

- ❖ This finding could be viewed as somewhat surprising.
- ❖ Pica has been observed in 21.8% of patients with ID within an institutionalized setting. However, pica is more prevalent in those with more severe degrees of ID.
- ❖ Multiple factors contribute to FB ingestion, and whilst ID is a risk factor, so are other forms of mental disorder.
- ❖ Patients within specialist forensic ID settings tend to have a mild level of ID, as well as significant levels of comorbidity, including mental illness, personality disorders, autism spectrum disorders, ADHD, substance misuse, and significantly disadvantaged psychosocial backgrounds. In that sense, the two groups might be more similar than anticipated.

DISCUSSION

- ❖ A higher number of FB ingestion incidents were observed in low secure wards, as compared to medium secure.
- ❖ This may be attributable to a greater level of opportunity to partake in such acts within a low security setting, without the potential to engage in other forms of self-harm, as suggested by Sarkar (2011).
- ❖ This might also explain the absence of incidents of FB ingestion in open wards, and lower rates among patients in rehabilitation wards, alongside the likelihood of these wards treating patients with lower levels of acuity.

DISCUSSION - MANAGEMENT

- ❖ There is limited research on short- and long-term treatment approaches for ingestion self-harm behaviour in psychiatric settings.
- ❖ This was evident in the lack of uniformity in the staff responses.
- ❖ Medical advice from external healthcare agencies was not always sought, in contrast with recommendations from the literature, and the level of response was not always in accordance with the level of risk posed by the item ingested.
- ❖ This is concerning, as clinical guidelines exist for the management of ingestion in secondary medical care, which highlight the range of tests which can assist practitioners to assess the presence, location, size, configuration, and number of ingested objects, and the appropriate treatment.
- ❖ However, no guidelines exist for psychiatric settings, and so it is unlikely that staff are able to adequately assess and treat those who have ingested foreign bodies.
- ❖ **As such, medical advice should be sought for all instances of ingestion occurring in psychiatric settings.**

DISCUSSION – SHORT TERM STRATEGIES

- ❖ In the short term, the ingestion of FB appears particularly challenging to manage.
- ❖ A key management of self-harm in forensic settings is the restriction of sharp items and objects that can be easily swallowed (Sarkar, 2011).
- ❖ However, it can be difficult to completely cleanse environment of these items, especially in the context of a national focus to reduce blanket bans and restrictive practices in secure services.
- ❖ There are ethical issues associated with restrictive interventions such as seclusion and long term segregation (Department of Health, 2014).

DISCUSSION – LONG TERM STRATEGIES

- ❖ There is limited research as to the most effective long term strategies, with a number of authors highlighting the entrenched nature of this behaviour (Mashhadi, Soltanifar, & Rashidrigi, 2012).
- ❖ However, functional analysis is likely to be of benefit in both understanding the root cause of behaviour and guiding the treatment formulation (LaVigna & Willis, 2012).

CONCLUSIONS

- ❖ Further focus on this under-researched area is urgently required.
- ❖ To explore this issue further, prospective and retrospective studies could examine the mental health and ID profile of such patients.
- ❖ Additionally, further qualitative study of the patient's narrative underpinning FB ingestion, as well as the views of staff members, will help add to the currently limited evidence base regarding FB ingestion and improve the clinical care and outcomes for such individuals.

Thank you for listening!

Any questions?

