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ORIGINAL ARTICLE

Management and reporting of safety incidents by residential care facilities in Ireland: A thematic analysis of statutory notifications

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Abstract

The prevention of safety incidents (SI) in health and social care settings is an ongoing undertaking. Limited research has been conducted on SIs outside of acute care. Internationally residential care facilities (RCFs) are typically regulated to promote quality and safeguarding. A part of this regulation is the statutory responsibility of RCFs to notify the regulator about SIs. Notifications include details surrounding SIs and are used to inform the regulatory monitoring approach. The recent development of the Database of Statutory Notifications from Social Care in Ireland facilitates in-depth analysis of notifications which can be used to inform the management of SIs and thus, improve quality and safety. The aim of this study was to analyse narratives provided in statutory notifications for older persons and people with disability, in order to identify current management of SIs, system vulnerabilities and reporting practices. A Qualitative Descriptive approach was taken. A random sample of notifications received in 2018 was drawn and stratified by service-type and notification-type. Data extraction was conducted against priori agreed target areas of management, system vulnerabilities and reporting practices. Inductive thematic analysis was used identifying two parent themes: 'chronology' and 'regulatory input'. 'Chronology' subthemes included 'pre-event', 'immediate response' and 'continued response'. Measures that are resident focused and follow policies and protocols in RCFs to prevent or mitigate the seriousness of SIs were evident in the immediate response and continued response. The actions taken in the immediate and continued response in turn became part of the pre-event of future SIs. Under 'regulatory input' subthemes included 'inaccurate reporting', 'lines of inquiry', 'requests for further information', 'identification of repetitive patterns' and 'satisfactory conclusion'. In conclusion, RCFs manage SIs with short and longer term actions focused on resident wellbeing. These actions in turn become part of the pre-event of future SIs. Regulatory input highlighted regulatory burden.

KEYWORDS
adverse events, incident reports, nursing homes, residential care facilities

1 | INTRODUCTION

Residential care facilities (RCFs) provide accommodation, nursing and supportive services to people who cannot live independently. There are different terms for RCFs, such as care homes, long-term care and assisted living. They encompass nursing and residential homes, supportive care facilities, rehabilitation and palliative care centres, amongst other care facilities. RCFs provide different levels of care to a range of people, from full nursing care to assisted living and from respite to full-time care.

The prevention of adverse events (AEs) in health and social care services is an ongoing challenge. AEs can be defined as an unintended or unexpected incident which causes harm and may lead to temporary or permanent disability (Vincent, 2010). AEs can also be defined as unintended injuries or complications caused by the management of a patient's healthcare, rather than by the patient's underlying disease (Brennan et al., 2004). These definitions generally apply to acute settings. In RCFs, the interpretation of AEs is typically broader and applies to events that have potential or actual impact on the quality and safety of the care and wellbeing of residents. The term safety incident (SI) has been used in the literature (Cribb et al., 2022) as a more generic term that encompasses AEs and other events. As such, we use the term SI in this paper.

Internationally, RCFs are typically regulated. The goal of regulation is maintenance and improvement in the quality of care and ensuring safeguarding of residents (Walshe & Boyd, 2007). Regulation can improve the quality and standard of care by implementing improvements across all regulated organisations and by focusing on poorly performing organisations (Walshe & Boyd, 2007). A common aspect of this regulation is the statutory mandate to notify the regulator of SIs (Australian Government, 2018; Government of Ireland, 2013a, 2013b; Government of Northern Ireland, 2003; Government of the United Kingdom, 2008).

In Ireland, the registration and regulation of RCFs is the responsibility the Office of the Chief Inspector of Social Services in the Health Information and Quality Authority (HIQA) (Government of Ireland, 2013a, 2013b). This has been the case for RCFs for older persons since 2009 (Government of Ireland, 2013b) and for people with disability since 2013 (Government of Ireland, 2013a). The Chief Inspector is responsible for the receipt of statutory notifications of SIs from these RCFs in Ireland (Government of Ireland, 2013a, 2013b).

The statutory notifications mandated in Ireland are largely the same for RCFs for older people and RCFs for people with disability. They are notifications of: unexpected death, infectious disease outbreak, serious injury to residents, unexplained absence of residents, allegations of abuse, staff misconduct, professional review of members of staff and, any fire, loss of service or unplanned evacuation. All notifications are focused on the safety of and the risk to residents. These SIs must be notified within 3 days of the event as the regulator deems them urgent and to be of high risk to resident safety. There is also quarterly reporting mandated, which detail of the use of restraints, operation of fire equipment, theft, non-serious injuries, pressure sores and expected deaths.

What is known about this topic?

- Little is known about how adverse events are managed by residential care facilities.
- Barriers and facilitators to reporting adverse events have been investigated, however this is mostly in acute settings.

What this paper adds?

- A chronological order to the management of adverse events was identified, pre-event, immediate response and continued response, presenting a framework within which to make quality improvements.
- Practices identified, including, providing immediate and continued medical treatment, referral to services and involving family, can inform improved adverse event management.
- Care deficits identified, such as, lack of trained staff or resources, neglectful care or omissions and repeated incidents, can be used to inform quality improvements across the sector.

SIs may occur in RCFs for a multitude of reasons such as, human factors, positive risk-taking behaviours and changing and evolving environments (Liukka et al., 2020). Some SIs in RCFs are preventable, however, some are also inevitable, as they are in all walks of life. For example, anyone can get the flu or accidently trip and fall. Regardless, these are also notified to the regulator, as the management of the aftermath is important for residents' health and wellbeing. Actions taken in the aftermath of an SI can have an impact on safety culture, effectiveness of the service and can have financial implications (Liukka et al., 2020). The care provided and actions taken in the aftermath of an SI are therefore crucial to lessen the impact on residents' wellbeing and provide direction for the development of preventive measures and quality improvement initiatives.

While there is substantial research into SIs in acute settings, there is a paucity of data and research relating to SIs in other settings, including RCFs (World Health Organization, 2009). Statutory notifications of SIs include valuable information used by the regulator to assess compliance with regulations, assess levels of risk to residents and to monitor the quality of care provided. Statutory notifications from RCFs in Ireland, similar to other jurisdictions, detail the circumstances of the incident, the number of residents involved and actions taken by the RCF throughout the SI (Government of Ireland, 2013a, 2013b; Government of Northern Ireland, 2003). Analysing statutory notifications can provide insight into current management of SIs in RCFs that can inform quality improvement across the system (Leistikow et al., 2017). It can also identify system failures and contributing factors that can inform risk management recommendations and opportunities for quality improvement (Farley et al., 2008; Slattery, 2016).

Comprehensive reporting of SIs is important for understanding the event and learning for both those reporting and receiving notifications (Macrae, 2015). The quality and detail of the information provided impacts on its usefulness to the RCF and the regulator (Thomas et al., 2011). In addition, lack of detail, unnecessary duplication and inconsistency can add to regulatory burden (Macrae, 2015). It has been suggested, however, that comprehensive reports and the information provided may contain numerous biases as notifications are completed by one individual with a partial view of a potentially complex clinical and organisational situation (Macrae, 2015). In addition, their reporting behaviour reflects their personal biases and a range of social factors (Macrae, 2015). In our opinion, quality improvements in reporting practices that contribute to a reduction in regulatory burden for RCFs and regulators, and limit bias, could produce more effective and responsive regulation.

The statutory notifications from RCFs for older persons and people with disability, in Ireland, contain a description of management in the aftermath of SIs. Given the paucity of research on SIs in RCFs research aims were developed from the applied knowledge of the authors in this field. As such, a study was devised with the aims of reviewing and analysing the narratives as part of these notifications. We aimed to identify current management of SIs within the RCF (actions taken by RCF staff before, during and after SIs) system vulnerabilities (any flaws or weakness in the system of notifying the regulator) and reporting practices (how RCFs describe and relay information regarding SIs to the regulator) in order to inform quality and safety improvements in RCFs.

2 | METHODS

2.1 | Study setting

We extracted data from 2018 from the recently developed Database of Statutory Notifications from Social Care in Ireland, first published in 2020 (HIQA LENS Project, 2021; O'Regan et al., 2021). This database includes all notifications received by HIQA since November 2013 from RCFs nationwide. There were 14,611 notifications from 1764 active RCFs in 2018 (O'Regan et al., 2021). Notifications of unexpected death, infectious disease outbreak, serious injury to residents, unexplained absence of residents, allegations of abuse, staff misconduct, professional review of members of staff and, any fire, loss of service or unplanned evacuation were analysed. These notifications were analysed for this study as they are detailed and reported within 3 days of the events. Quarterly notifications were excluded as they contain less detail report on less serious events and there is a time lag between event and reporting.

Free text variables that describe details of the events that triggered the notification, actions taken, and the outcome were extracted. These variables were: Outcome, Event Circumstance, Actions Taken, Additional Details, Measures Taken, Residents Status, Serious Injury Treatment Description, Family Notified, Staff Misconduct Investigation Details, Staff Misconduct Further Info, Staff Professional Review Incident, Staff Professional Outcome Review, Staff Professional Investigation Details and, Reason for Ineffectiveness in Notifications of any Fire, Loss of Power, Heating, Water or Unplanned Evacuation (entered by the RCF) and Risk Comment and Inspector Comment (entered by the HIQA inspector). The database contains no personal identifiable information.

Ethical approval was not sought for this research as it is secondary analysis of routinely collected regulatory data. The data used for the analysis pertain to residential care services, they are not human data and were not collected from human participants. The database used for analysis contains no personally identifiable data and the data pertains to events as opposed to individuals.

2.2 | Study design

A Qualitative Descriptive (QD) approach was applied (Sandelowski, 2000, 2010). The study was conducted and reported according to the Standards for Reporting Qualitative Research (SRQR) (O'Brien et al., 2014).

2.3 | Sample

The Database of Statutory Notifications from Social Care in Ireland was used for this analysis (HIQA LENS Project, 2021). A random sample was drawn from the notifications received in 2018 (n = 14,611), stratified by service type (older persons and disability) and all eight notification types. The first six notifications from each of the 16 stratifications as identified using the random number generator in MS Excel were included to form sample 1 (n = 447).

2.4 | Data analysis

The number and percentage of notifications were calculated by service type and by type of notification in the sample and in the total 2018 dataset to evaluate representativeness of the sample.

To set the scope and to structure the data extraction based on the study aims, a priori agreed areas of focus were management in the aftermath of a notifiable event, system vulnerabilities and reporting practices. An inductive thematic approach was taken for the analysis of the free text variables. Inductive thematic analysis is appropriate for the analysis of the data in this study, as the coded categories are derived directly from the text data. (Braun & Clarke, 2006) An inductive approach provides a voice to the experiences and meanings of participants and their world, as reported in the data and is not shaped by any preconceptions (Braun & Clarke, 2006, 2012).

The six phases of thematic analysis as described by Braun and Clarke (2012) were carried out independently by two researchers who met and discussed findings upon completion of each phase to ensure consistency and agreement of interpretations. A third reviewer provided an external check on this process and resolved

disagreements. The first reviewer analysed all notification types until saturation of themes was reached. The second reviewer analysed a purposeful sample of 50% of the data (representative for service and notification types).

All three reviewers were experienced in thematic analysis as described by Braun and Clarke (2012) and complemented each other as they arrived at the data form different perspectives and with differing knowledge and levels of experience of SIs and reporting practices. The first reviewer was unaccustomed with statutory notifications and their contents prior to the analysis but had experience working as a healthcare professional. The second reviewer was very familiar with statutory notifications and with acronyms and idiosyncrasies they contained, having worked with them extensively and was the most familiar of all three reviewers. The third reviewer resolved disagreements and provided a third opinion. The third reviewer had experience as a healthcare professional and was familiar with SIs, health and social care standards and statutory notifications.

Data were imported into NVivo 1.3 for analysis.

Saturation, when no new themes or codes were emerging from the data (Saunders et al., 2018), was reached using sample 1, and no further sample was extracted. A coding tree was created to represent the emergent themes and subthemes. Once themes and subthemes where established they were mapped to notification type. Quotations were selected from the data to represent each of the identified codes.

To identify the presence of themes across notification types, the frequency of subtheme codes in each notification type was determined and intensity was calculated by dividing code frequency in each notification type by the total number of incidences of that code.

3 | FINDINGS

A total of 14,611 notifications were received in 2018. The sample contained 447 notifications, 3.26% of the notifications received. The sample was representative of the total notifications received in 2018 as the percentage of each notification type in the sample closely resembled the percentages of each notification type received in 2018 (Table 1). All notification types were analysed beyond saturation, to completion, except for notifications of allegations of abuse where saturation was achieved with 55.7% of the notifications analysed.

Two parent themes were identified: 'chronology' and 'regulatory input'. Direct quotes for all themes and subthemes are provided in Table 2. A chronological order in the practice surrounding adverse events in RCF's was identified which included the themes 'pre-event', 'immediate response' and 'continued response'. The 'pre-event' theme encapsulated measures in place prior to the event and the identification of deficits in care that contributed to the SI. (Figure 1). 'Deficits in care' included a lack of trained or qualified staff or resources, neglectful care or omissions in care, deficits in care while the resident was not under the care of the RCF and repeated incidents involving a resident or an RCF.

Following the SI was the 'immediate response' to the event (Figure 2). The 'immediate response' differed depending on the SI. For example, if a resident was injured, the response included medical intervention, multi-disciplinary involvement and or referral to medical care for the appropriate treatment. If the SI involved a member of staff, the response included but was not limited to investigations, following policy and staff removal from the situation or their post, either temporarily or permanently.

The final theme in the chronological order to events was 'continued response' (Figure 3). This included the subthemes of 'learning' which encapsulated evidence of learning from the event or seeking advice on how best to proceed, 'measures taken' in the aftermath of the event to prevent reoccurrence or resolve the issue, 'staff disciplinary action' to safeguard residents and reports of 'unfounded allegations' based on investigation outcomes.

From this chronological order to SIs, an implemented response sequence was evident. RCF's respond to the event with both short and longer term actions, which in turn become part of the pre-event of the next potential similar or repeated event (Figure 4).

The second parent theme of 'regulatory input' emerged from free text entered into notifications by regulatory inspectors. This theme encompassed five further subthemes. 'Inaccurate reporting' which detailed inaccuracies in the completion of a notification as noted by the inspector; incorrect notification type, unnecessary submission of notifications and notifications containing personal identifiable information. 'Line of inquiry comprised of notes on how to follow-up or proceed with the notification or next inspection of the RCF. 'Repetitive pattern' made note of trends of repeated incidents of a similar nature with a specific resident or

TABLE 1 Number and percentage of notifications in the sample for analyses and the total received in 2018 from RCFs for older persons and people with disability in Ireland, by type of notification

Notification type	Notifications in sample, *n* (% of sample)	Total notifications 2018, *n* (% of 2018 total)
Unexpected death	12 (2.7)	812 (5.6)
Infectious disease	13 (2.9)	381 (2.6)
Serious injury	109 (24.4)	4126 (28.2)
Unexplained absence	20 (4.5)	412 (2.8)
Abuse allegations	167 (37.4)	6862 (47.0)
Staff misconduct	21 (4.7)	348 (2.4)
Professional review of staff	9 (2.0)	9 (0.1)
Unplanned evacuation or loss of utility	96 (21.5)	1661 (11.4)

TABLE 2 Examples of supporting quotations to support themes and subthemes identified in an analyses of a sample ($n = 447$) of notifications of safety incidents from RCFs for older persons and people with disability in Ireland

Themes	Subthemes	Supporting quotation
Pre-event		
Deficits in care	Insufficient staff or resources	'resident requires 2;1 staffing and this is not always being provided'
	Neglect/Omission	'Residents PEG feed wasn't initiated as per protocol'
	Not under RCF's care	'Admitted from home with sacral pressure area'
	Repetitive pattern	'11 previous NF05s [notification of unexplained absence of a resident from the designated centre] for this resident re unauthorised absences'
Prior controls		'occupies a low bed on a hi-tech alternating, pressure relieving mattress'
Response		
Considerate care	Accompanied by staff	'was supported by familiar staff throughout'
	Monitoring	'Close supervision of residents maintained until power resumed'
	Person centred care	'MDT meeting has been held to discuss residents desire to live nearer his friend and family in Dublin'
	Reassurance	All residents checked and reassurance given to residents"
Family/NOK	Informing	'NOK contacted and arrived on-site within minutes'.
	Involving	'Paracetamol suppository was given after discussion by phone with family'
Following policy		'Buccalam Midazolam administered (as per protocol)'.
Investigating	CCTV	'CCTV footage was checked by the Director of Nursing'
	Claimant statement	'resident interviewed immediately'
	Corroboration	'each account provided by staff and other parent about the alleged incident are consistent'.
	Investigation initiated	'The injury was not noticed until later in the evening, this has resulted in an investigation'
	Staff statement	'Statements have been requested form all staff'
Medical intervention	Acute setting	'Vomited approx. 1 h post-fall – transferred to hospital'.
	First aid	'First aid, neurological examination and head injury observations'
	GP	'She was reviewed by the GP who reported there was no evidence of head injury'
	Medication	'MDT inputs and review'
	MDT	'Commenced on antibiotic treatment for lower respiratory tract infection'
	Physiotherapy	'Reviewed by physio'
	Psychology/ psychiatry	'Emergency service called; A& E and psych assessment'
	X-ray	'Sent to hospital for x-ray'
MDT involvement	Acute setting	'Resident received hospital care where she required four staples to the laceration and discharged back to nursing home'
	Behavioural supports	'under review with Behaviour Support at present'
	Dietician	'4 day food and fluid chart commenced and oral supplements commenced following review by the dietician'
	GP	'Reviewed by the GP on the next day'
	Infection control or public health	'Community infection control nurse for region contacted'
	Non-specific	'Assailant being worked with in regards behaviour with MDT'
	OT	'has a sleep system in place from O.T'
	Physiotherapy	'resident was transferred from University Hospital ******** to ** ******** Nursing Home ***** for extended physiotherapy'.
	Psychology/ psychiatry	'Resident with Psych history showing increased confusion-S/B psych team/nurse'
	SALT	'Urgent referral to the MDT, SALT'
	Social work	'contacted the SHS social work team'

(Continues)

TABLE 2 (Continued)

Themes	Subthemes	Supporting quotation
Referral	To acute setting	'Complained of pain and so sent to acute setting'
	To behaviour supports	'Positive Behavioural Support team contacted'
	To coroner	'The case was referred to the coroner'
	To GP	'GP follow up visit scheduled'
	To infection control	'Infection control nurse and AMO contacted'
	To MDT	'MDT input'
	To psychology/ psychiatry	'being reviewed by ID services i.e. CNS and Consultant Psychologist in view of trending behaviour'
	To utility or trade services	'contacted plumber'
Reporting/Informing	Garda	'Staff contacted Garda"
	HSE	'Public health department, Infection Control, General Manager, Lab, SUH, all informed of suspected outbreak'
	Person in charge/ Management	'Staff contacted PIC after incident'
	Safeguarding	'Safeguarding team informed by provider'
	TUSLA	'Incident has been notified to TUSLA'
Staff intervention		'Staff were with her and supported her as much as they could'
Staff removal		'Staff member on paid leave pending investigation'
Triage		'Assessed for further injury, hoisted from the floor to the bed'
Unfounded allegation		'Investigation completed by PIC who concludes that nothing untoward occurred'
Continued response		
Learning		'Staff have received up to date information in relation to Rotavirus'
Measures taken	New assessment	'mental state will be assessed'
	New management	'Staff to remove other children when ***** gets upset'
	Physical measures	'Appliance to be removed from the centre'.
	Precautionary measures	'advised to cover rash on current resident to prevent spread'
	Recruitment /redeployment	'night staff increased to two waling staff'
Staff disciplinary measures		'The Staff member has been taken off nights and is working fully supervised for 6 months'
Regulatory input		
Inaccurate reporting		'Does not meet the requirement to submit NF03 [serious injury notification]'
Line of inquiry		'Significant delay in submitting this NF03 [serious injury notification] – to follow this up on next inspection'
Repetitive pattern		'outstanding issues with regulation 27 and general hygiene over last three inspections'
Request for further information		'Phoned PIC who was able to give more information, Inspector requested a follow up email'
Satisfactory conclusion		'based on information supplied case holder satisfied to close notification'

Abbreviations: CCTV, closed circuit television; Gardaí, Irish Police; GP, general practitioner; HSE, Health Service Executive, Irelands' health service; MDT, multi-disciplinary team; NOK, next of kin; OT, occupational therapy; PIC, person in charge; SALT, speech and language therapy; Tusla, Irish child and family agency.

with the centre. 'Requesting further information' was evidence of a lack of detail in notifications or requests to provide information once it became available. Lack of standardised language and the fact that each notification submitted is a personal account of the SI was evident in this theme. Finally, 'satisfactory conclusion' comprised of notes from inspectors satisfied that a notification was closed.

Many of the themes identified in this analysis were common across all notification types while some were unique to certain notification types, referring to infection control was unique to notifications of infectious disease for example. Common themes identified in notifications detailing injury or abuse were 'Medical intervention', 'MDT involvement' and 'Referral'. The frequency of themes in each notification is provided in Table 3.

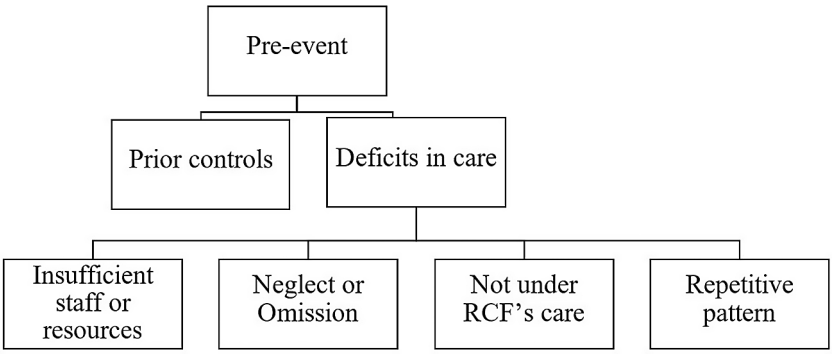


FIGURE 1 Coding tree for the parent theme 'pre-event' as identified in analyses of a sample ($n = 447$) of notifications of adverse events from RCFs for older persons and people with disability in Ireland.

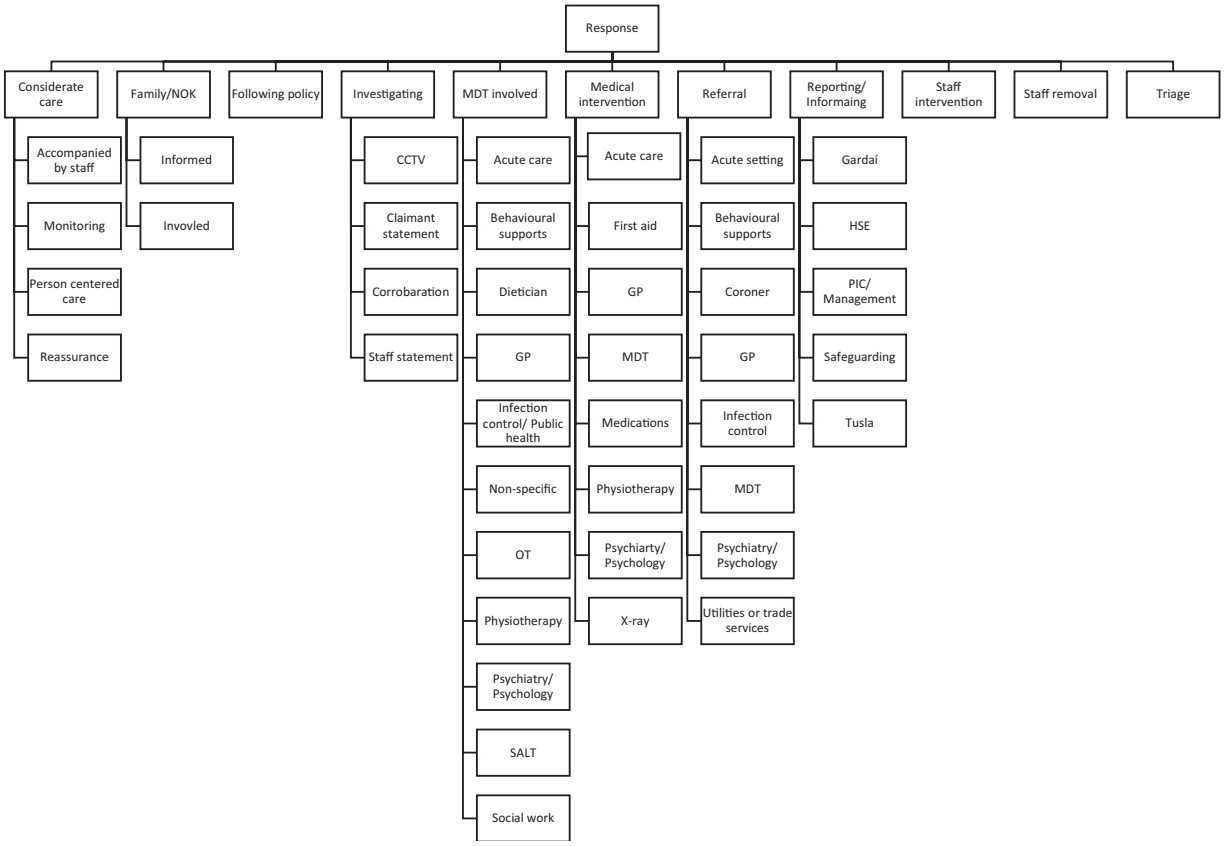


FIGURE 2 Coding tree for the theme 'response' as identified in analyses of a sample ($n = 447$) of notifications of adverse events from RCFs for older persons and people with disability in Ireland. CCTV, closed circuit television; Gardaí, Irish police; GP, general practitioner; HSE, health service executive, Irelands' health service; MDT, multi-disciplinary team; NOK, next of kin; OT, occupational therapy; PIC, person in charge; SALT, speech and language therapy; Tusla, Irish child and family agency.

4 | DISCUSSION

4.1 | Summary of findings

Management of SIs in RCFs is largely undocumented. The aim of this study was to identify management, system vulnerabilities and reporting practices from free text variables entered into statutory notifications of SIs in RCFs in Ireland, in order to share good management and inform quality improvement in the management and reporting of SIs from RCFs. A chronological order to practice surrounding SIs was identified: pre-event, immediate response and continued response. From this a sequence of implemented response was identified; new measures are put in place in response to an event to eliminate or manage risk which in turn become prior controls for potential subsequent events. This cycle organically happens and is not a pre-existing model of quality improvement. A range of management in the aftermath of SIs was identified, some of which are unique to certain notifications, referring to a trades person to fix utilities for example, and some of which occur across notifications, such as informing family/next of kin. The management of SIs identified in this study can hence be used to inform quality improvement initiatives.

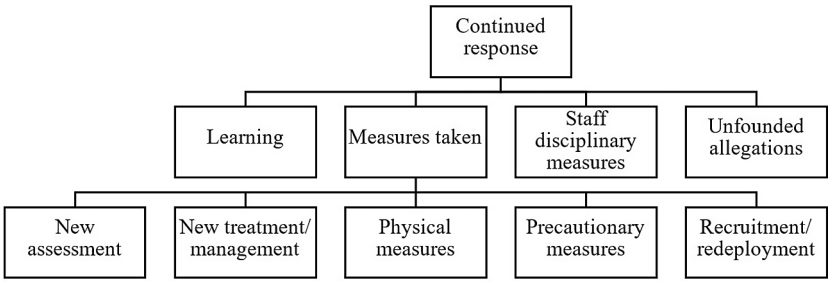


FIGURE 3 Coding tree for the theme 'continued response' as identified in analyses of a sample ($n = 447$) of notifications of adverse events from RCFs for older persons and people with disability in Ireland.

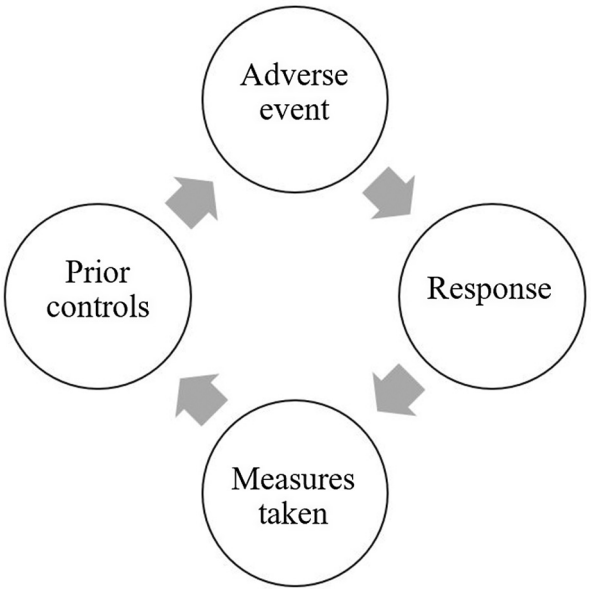


FIGURE 4 Implemented response sequence as observed within analyses of a sample ($n = 447$) of notifications of adverse events from RCFs for older persons and people with disability in Ireland.

The majority of management identified had the resident and their welfare as its focus, such as immediate and continued medical treatment, referral to services, involving and informing family and measures to increase safety and decrease risk of reoccurrence. Poor management was identified; from staff in the form of neglect or omission, from system vulnerabilities in the form of a staff or resource insufficiency and repetitive patterns with individual residents or in RCFs.

Unsatisfactory reporting practices were identified in the form of requests for further information and inaccurate reporting. Discovery of the cause of poor management, neglect or omissions, lack of resources or repetitive patterns was beyond the scope of this study. Reasons for requests for further information were also not determined, but it may be a result of poorly completed notifications or that information was not available within the 3-day time frame. Herein identified range of management and reporting offer learning opportunities for regulators and RCFs and can inform quality improvement initiatives.

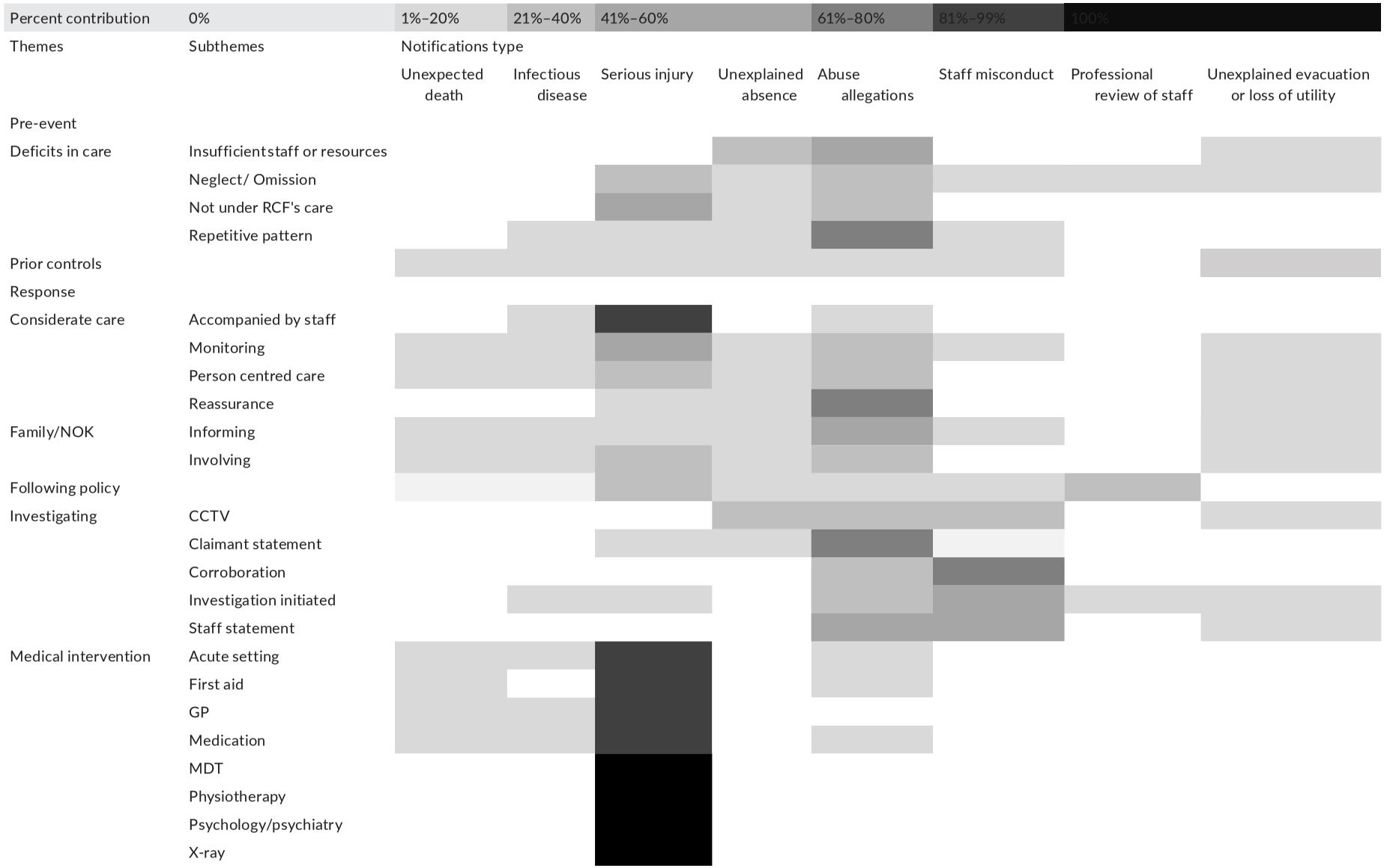
Each centre may have one or more individuals completing forms. This equates to multiple individuals with individual biases and different writing styles, and multiple interpretations on what to include when completing notifications. In addition a lack of a unified language, such as SNOMED (Wang et al., 2002) or the Nursing Intervention Lexicon and Taxonomy (Grobe, 1990), may have also contributed to some of the unsatisfactory reporting practices noted, which, in addition to other potential reasons beyond this study, result in non-standardised reporting.

Most research in the area of SIs in healthcare settings focuses on methods for improvement in reporting (Ontario, 2017) and barriers and obstacles to completing reports (He et al., 2020; Lawton & Parker, 2002; Wagner et al., 2013) and the opinions of healthcare professionals (Anderson et al., 2013; Mitchell et al., 2016). This study differed as it did not seek opinions on SIs, how they are reported or how reporting can be improved, it investigated the actions taken in the aftermath of a range of SIs in RCFs. Using the data from statutory notifications only, we aimed to identify management and hence areas for improvement in management and in reporting. In a review Mira et al. (2017) identified following guidelines and procedures, an organisational response and, training and risk management as actions to reduce the negative impact of SIs (Mira et al., 2017). These actions were also identified in this study.

In another recent review of literature on action after SIs, Liukka et al. (2020) identified, communication and support, complete apology and, training and learning, as key themes across all affected by the SI, be they patients, families, healthcare professionals or institutions (Liukka et al., 2020). All of these actions were identified in this study, except for apologies. Liukka et al. (2020) state that the manner of, and information provided in, the apology was crucial to the apology process and that victims wanted the apology to include what changes can be made and any learning from the SI (Liukka et al., 2020). In our findings, the involvement and informing of families may have included apologies but, they were not specified, nor are details of apologies specifically requested by the regulator. The 3-day time constraint may have prevented RCF including details of apologies as investigations may not have been complete prior to the submission of a notification. Apologies, if not routine, offer an area of improvement in the management of SIs as they can contribute to accountability, learning and any possible improvements in the 'Pre-event' and 'Response' aspects of SI management.

Regulators can have positive effects on behaviour and performance of regulated organisations (Walshe & Boyd, 2007). Internationally reporting SIs to regulators is an established part of quality and safety improvement, both across healthcare systems and within organisations (Macrae, 2015). Learning from SIs, at a system

TABLE 3 Percent contribution of frequency of codes to total codes per notification type within analyses of a sample ($n = 447$) of notifications of adverse events from RCFs for older persons and people with disability in Ireland



Percent contribution	0%	1%–20%	21%–40%	41%–60%	61%–80%	81%–99%	100%

Themes	Subthemes	Notifications type							
		Unexpected death	Infectious disease	Serious injury	Unexplained absence	Abuse allegations	Staff misconduct	Professional review of staff	Unexplained evacuation or loss of utility
Pre-event									
Deficits in care	Insufficient staff or resources								
	Neglect/ Omission								
	Not under RCF's care								
	Repetitive pattern								
Prior controls									
Response									
Considerate care	Accompanied by staff								
	Monitoring								
	Person centred care								
	Reassurance								
Family/NOK	Informing								
	Involving								
Following policy									
Investigating	CCTV								
	Claimant statement								
	Corroboration								
	Investigation initiated								
	Staff statement								
Medical intervention	Acute setting								
	First aid								
	GP								
	Medication								
	MDT								
	Physiotherapy								
	Psychology/psychiatry								
	X-ray								

(Continues)

TABLE 3 (Continued)

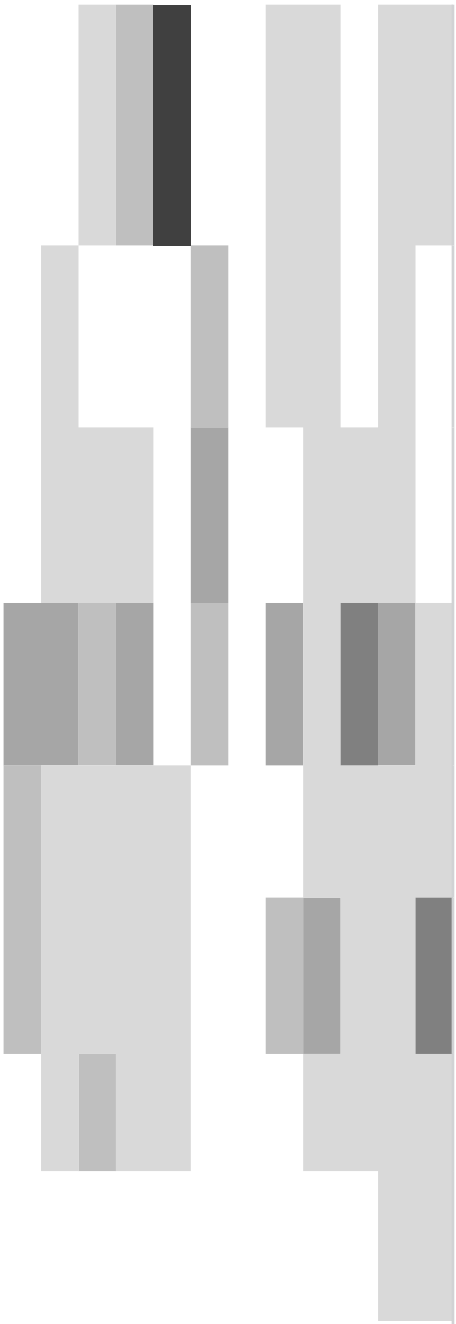


TABLE 3 (Continued)

Measures taken	
	New assessment
	New management
	Physical measures
	Precautionary measures
	Recruitment/redeployment
Staff disciplinary measures	
Regulatory input	
Inaccurate reporting	
Line of inquiry	
Repetitive pattern	
Request for further information	
Satisfactory conclusion	

Abbreviations: CCTV, closed circuit television; Gardaí, Irish Police; GP, general practitioner; HSE, Health Service Executive, Irelands' health service; MDT, multi-disciplinary team; NOK, next of kin; OT, occupational therapy; PIC, person in charge; SALT, speech and language therapy; Tusla, Irish child and family agency.

and organisational level, can result from successful SI reporting systems (Macrae, 2015). Apologies, for instance, were not reported by RCFs but they are not asked about them directly by the regulator. If RCFs are specifically asked about apologies, those who are providing apologies will report them and those who have not may then routinely included them. Learning from incidents was evident in the subtheme learning, and also in the cyclical effectiveness of the response to SIs observed. Regulatory feedback plays a role in demonstrating the importance of reporting by informing actions taken and lessons learnt in the aftermath of SIs (Macrae, 2015). The value of reporting SIs to regulators must not only be oversight but also learning after the event. The development of the Database of Statutory Notifications from Social Care in Ireland enables analysis of management and reporting of SIs at a national level rather than the analysis of individual organisations or individual SIs. This will facilitate learning after SIs and benefit the quality and safety of care. It is, therefore, important that healthcare organisations are aware that their SI report is a learning opportunity not only for their own organisation but for others also, nationally and internationally (Macrae, 2015).

Opportunities for improvement in reporting practices and system vulnerabilities were identified in this study. Inaccurate notification and the need for inspectors to request further information are evidence that there are improvements to be made; improvements in the questions asked by the regulator and in the answers provided. Improvements may be possible by decreasing regulatory burden and providing adequate training. The procedure of statutory notifications, that they must be submitted within three-days, may account for a portion of the requests for further information as certain details regarding the SIs may not be available within 3 days. A portion may be the result of inaccurate reporting or lack of detail. Reporting on a complex event within 3 days may not be feasible and an alternative reporting policy, perhaps an initial reporting of the SI followed at a later date with a full report is worth considering.

The accuracy of reports and level of detail varied. Incident reports begin with one person's view and contain numerous biases; individuals completing the report may or may not have been involved in the SI, they may have received information second hand and SI reports reflect a range of complex clinical and organisational situations and social factors (Macrae, 2015). The language and detail included in notifications can vary with numerous individuals completing notifications, each with potentially different interpretations of SIs. The lack of a unified language contributes to this variance and also adds to the regulatory burden. Inspectors identifying repetitive patterns suggest that there is a strong culture of reporting, but that there is a lack of learning from SIs or that certain SIs are difficult to mitigate against in social care settings.

Regulators, RCFs, residents, and their family members across the globe can compare and contrast the management of SIs they experience with the findings of this study. The resident centred management of SIs and the cyclical effectiveness of the response to SIs identified herein can act as templates for regulators and RCFS for improvement. Gaps in the services provided and management

surrounding SIs can be identified more readily by regulators and RCFs and may assist with reducing the number of SIs and mitigate against the impact on those involved. The opportunities for improvement in reporting practices identified herein can be reviewed by regulators with a view to improving the reporting of SIs and reducing regulatory burden, a burden on both the RCFs and the regulator.

4.2 | Strengths and limitations

This analysis was based on the Database of Statutory Notifications from Social Care in Ireland, a national database including all notification of SIs received by the regulator from RCFs for older persons and for people with disability in Ireland commencing in 2013 (HIQA LENS Project, 2021). The sample was extracted from this comprehensive database, from 2018, and was stratified for all types of notifications and all types RCFs, ensuring a large representative sample was analysed. The database and therefore the sample, however, are susceptible to underreporting. There was no evidence of management of SIs where a notification was not received by the regulator. However, as notifications are mandated in legislation and RCFs are monitored this risk is low. The year 2018 was chosen for this analysis, as there is oftentimes a delay in closing notifications due to the need to complete inquiries and investigations. Choosing a more recent year may have introduced a bias towards less complex notifications that did not necessitate follow-up.

The data collected were from forms completed by RCF employees. This is both a strength and a limitation. Using the forms means the data collection method is commensurate across events. The form is however a single point of view, which includes personal opinions and biases and is influenced by the culture of the RCF. Although the form is the same for everyone, the language, terminology and writing skills are not. Further investigations into notifications that lacked detail were poorly completed or to confirm or repudiate aspects would have required further data collection, such as interviewing those involved in SIs from 2018 and as such, was not feasible in this retrospective study. However, given that SIs in RCF are largely previously undocumented and that this analysis was at a national level, this lack of triangulation does not detract from the findings.

The notification forms may not cover all aspects of the SI and how it was managed. RCFs completing the forms may not volunteer additional information if it is not asked for. The information available for this analysis and therefore the themes in this study are influenced by the structure of the forms. Questions are broad and ask RCFs what happened and free text entries allow for the RCFs to provide an account of the SI and actions taken.

This study design was particularly pertinent for this study as the findings of this work are intended to inform good practice guides, aimed at inspectors and service providers and can be used by regulators in different countries. QD studies focus on generating a comprehensive summary of events and practice and are useful in providing a rich description of experiences. QD studies offer a comprehensive summary of an event in the everyday terms of those events, in a language similar to that used in practice, presenting facts and meanings participants give to these facts, in a coherent and useful manner (Neergaard et al., 2009; Sandelowski, 2000). It is appropriate for obtaining unaltered answers to questions relevant to practitioners and policy makers (Sandelowski, 2000). This approach gives a voice to staff and residents of RCFs and describes management of SIs. Using Braun and Clarke (2006) thematic analysis was the appropriate type of analysis for this QD study as the themes are strongly linked to the data (Braun & Clarke, 2006; Pope et al., 2000).

QD is, however, not without its drawbacks. There are no theoretical strings attached when analysing the data resulting in a risk of increased subjectivity. To address this risk, the two independent reviewers who performed the thematic analysis were experienced in the method and complemented each other in their backgrounds and experience thus limiting either's subjectivity. A third researcher involved to strengthen the analysis, resolved disagreements and provided a third opinion. This method eliminated any preconceptions of any one reviewer and limited the subjectivity of any one reviewer.

With no pre-existing literature to guide the study aims and methods, they were developed by researchers who are subject matter experts with in-depth knowledge of the nuanced differences in SIs and practice in RCFs. While this is a justifiable approach, it may have introduced a potential limited focus. Similarly the sampling strategy, including the selection of variables to stratify the sample by, was also developed by the same researchers. As such, the sample should reflect the breath of practice in RCFs in Ireland.

5 | CONCLUSIONS

SIs in social care is an under investigated area of healthcare. This is the first study, to our knowledge, to investigate SIs in a social care setting. This was made possible by the development and publication of the Database of Statutory Notifications from Social Care in Ireland (O'Regan et al., 2021). The management of SIs in social care from other jurisdictions can compare management of SIs with the findings of this study. Further research is warranted to address the paucity of evidence on SIs in social care, including, but not limited to, contributing factors to SIs in social care. Further research to fully investigate the sequence of implemented response cycle identified in this study is also warranted, comparing and contrasting it to established quality improvement models and exploring how it can be leveraged to support quality improvement interventions.

This study of statutory notifications identified a range of management involving residents, staff and family/next of kin, in the aftermath of SIs in RCFs, in Ireland. There was also some evidence of deficits in care. Some practices are unique to certain types of reported SIs, while others apply to all SIs. A sequence of implemented response was identified where measures taken by RCFs in the aftermath of an SI are put in place to reduce the risk of reoccurrence or mitigate the effect of future SIs. This presents a framework within which to make quality improvements. These findings present

opportunities for improving management and reporting practices in the aftermath of SIs in RCFs.

AUTHOR CONTRIBUTIONS

All authors meet criteria for authorship as stated in the Uniform Requirements for Manuscripts Submitted to Biomedical, Niall McGrane, Paul Dunbar and Laura Keyes undertook the analysis and drafted the manuscript. Stephaine O'Regan, Mary Dunnion and Ian Leistikow provided critical revision of the manuscript. Laura Keyes conceived the content, takes overall responsibility for the integrity of the work and the decision to submit for publication. All authors contributed to the writing of the final draft and agreed to the submission Health and Social Care in the Community. The authors would like to declare that Niall McGrane, Paul Dunbar, Mary Dunnion and Laura Keyes are currently employed by HIQA, although, we are not of the opinion that this constitutes a conflict of interest given the nature of the research.

CONFLICT OF INTEREST

The authors declare no other conflicts of interest.

DATA AVAILABILITY STATEMENT

The database used for this study is not publicly available as it contains regulatory data about the performance of residential care facilities in Ireland. However, the data can be made available from the corresponding author on reasonable request and under a data sharing agreement. A public version of the database, with sensitive data removed and/or psuedonymised, is available at the following webpage: https://www.hiqa.ie/areas-we-work/Database-of-Statutory-Notifications.

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REFERENCES

Anderson, J. E., Kodate, N., Walters, R., & Dodds, A. (2013). Can incident reporting improve safety? Healthcare practitioners' views of the effectiveness of incident reporting. *International Journal for Quality in Health Care*, *25*(2), 141–150. https://doi.org/10.1093/intqhc/mzs081

Australian Government. (2018). *Aged Care Quality and Safety Commission Act 2018*. Retrieved from Canberra: https://www.legislation.gov.au/Series/C2018A00149

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskipf, & K. J. Sher (Eds.),*APA handbook of research methods in psychology, vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57–71). American Psychological Association.

Brennan, T. A., Leape, L. L., Laird, N. M., Hebert, L., Localio, A. R., Lawthers, A. G., Newhouse, J. P., Weiler, P. C., Hiatt, H. H., & Harvard Medical Practice Study, I. (2004). Incidence of adverse events and negligence in hospitalized patients: Results of the Harvard medical practice study I. 1991. *Quality & Safety in Health Care*, *13*(2), 145–152. https://doi.org/10.1136/qshc.2002.003822

Cribb, A., O'Hara, J. K., & Waring, J. (2022). Improving responses to safety incidents: We need to talk about justice. *BMJ Quality & Safety*, *31*, 327–330. https://doi.org/10.1136/bmjqs-2021-014333

Farley, D. O., Haviland, A., Champagne, S., Jain, A. K., Battles, J. B., Munier, W. B., & Loeb, J. M. (2008). Adverse-event-reporting practices by US hospitals: Results of a national survey. *Quality & Safety in Health Care*, *17*(6), 416–423. https://doi.org/10.1136/qshc.2007.024638

Government of Ireland. (2013a). *Care and Support of Residents in Designated Centres for Persons (Children and Adults with Disabilities) Regulations 2013*. Retrieved from Dublin: http://www.irishstatutebook.ie/eli/2013/si/367/made/en/print

Government of Ireland. (2013b). *Care and Welfare of Residents in Designated Centres for Older People Regulations 2013*. Retrieved from Dublin: http://www.irishstatutebook.ie/eli/2013/si/415/made/en/print

Government of Northern Ireland. (2003). *Article 23 (7)(d) The Health and Social Services (Quality, Improvement and Regulation) Order 2003*. Retrieved from Northern Ireland: https://www.legislation.gov.uk/nisi/2003/431

Government of the United Kingdom. (2008). *Health and Social Care Act 2008*. Retrieved from London: https://www.legislation.gov.uk/ukpga/2008/14/contents

Grobe, S. J. (1990). Nursing intervention lexicon and taxonomy study: Language and classification methods. *Advances in Nursing Science*, *13*(2), 22–33. https://doi.org/10.1097/00012272-199012000-00004

He, H., Yu, P., Li, L., Xiao, X., Long, Y., Wang, L., Zeng, J., & Li, Y. (2020). Patient safety culture and obstacles to adverse event reporting in nursing homes. *Journal of Nursing Management*, *28*(7), 1536–1544. https://doi.org/10.1111/jonm.13098

HIQA LENS Project. (2021). *Database of Statutory Notifications from Social Care in Ireland. 2021*. Retrieved from: Unpublished database.

Lawton, R., & Parker, D. (2002). Barriers to incident reporting in a healthcare system. *Quality & Safety in Health Care*, *11*(1), 15–18. https://doi.org/10.1136/qhc.11.1.15

Leistikow, I., Mulder, S., Vesseur, J., & Robben, P. (2017). Learning from incidents in healthcare: The journey, not the arrival, matters. *BMJ Quality and Safety*, *26*(3), 252–256. https://doi.org/10.1136/bmjqs-2015-004853

Liukka, M., Steven, A., Moreno, M. F. V., Sara-Aho, A. M., Khakurel, J., Pearson, P., Turunen, H., & Tella, S. (2020). Action after adverse events in healthcare: An integrative literature review. *International Journal of Environmental Research and Public Health*, *17* (13). 4717. doi:10.3390/ijerph17134717

Macrae, C. (2015). The problem with incident reporting. *BMJ Quality and Safety*, *25*, 71–75.

Mira, J. J., Lorenzo, S., Carrillo, I., Ferrús, L., Silvestre, C., Astier, P., Iglesias-Alonso, F., Maderuelo, J. A., Pérez-Pérez, P., Torijano, M. L., Zavala, E., & Scott, S. D. (2017). Lessons learned for reducing the negative impact of adverse events on patients, health professionals and healthcare organizations. *International Journal for Quality in Health Care*, *29*(4), 450–460. https://doi.org/10.1093/intqhc/mzx056

Mitchell, I., Schuster, A., Smith, K., Pronovost, P., & Wu, A. (2016). Patient safety incident reporting: A qualitative study of thoughts and perceptions of experts 15 years after 'To err is Human'. *BMJ Quality and Safety*, *25*(2), 92–99. https://doi.org/10.1136/bmjqs-2015-004405

Neergaard, M. A., Olesen, F., Andersen, R. S., & Sondergaard, J. (2009). Qualitative description – The poor cousin of health research? *BMC Medical Research Methodology*, *9*(1), 52. https://doi.org/10.1186/1471-2288-9-52

O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for reporting qualitative research: A synthesis of

recommendations. *Academic Medicine*, *89*(9), 1245–1251. https://doi.org/10.1097/acm.0000000000000388

Ontario, H. Q. (2017). Patient safety learning systems: A systematic review and qualitative synthesis. *Ontario Health Technology Assessment Series*, *17*(3), 1–23.

O'Regan, S., McGrane, N., Dunbar, P., Dunnion, M., Leistikow, I., & O'Connor, L. M. (2021). Public reporting of adverse events from Long-term care facilities for older persons and people with disability in Ireland 2013-2019: Development of an openly accessible database and descriptive analyses. *Journal of the American Medical Directors Association*. https://doi.org/10.1016/j.jamda.2021.09.015

Pope, C., Ziebland, S., & Mays, N. (2000). Qualitative research in health care. Analysing qualitative data. *British Medical Journal*, *320*(7227), 114–116. https://doi.org/10.1136/bmj.320.7227.114

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health*, *23*(4), 334–340. https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G

Sandelowski, M. (2010). What's in a name? Qualitative description revisited. *Research in Nursing & Health*, *33*(1), 77–84. https://doi.org/10.1002/nur.20362

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, *52*(4), 1893–1907. https://doi.org/10.1007/s11135-017-0574-8

Slattery, D. M. (2016). Patients safety incident reporting: The who, what, where, when and why? *Irish Medical Journal*, *109*(3), 377.

Thomas, M. J., Schultz, T. J., Hannaford, N., & Runciman, W. B. (2011). Mapping the limits of safety reporting systems in health care-what lessons can we actually learn? *The Medical Journal of Australia*, *194*(12), 635–639. https://doi.org/10.5694/j.1326-5377.2011.tb03146.x

Vincent, C. (2010). Reporting and learning systems. In *Patient safety* (pp. 75–95). Wiley.

Wagner, L. M., Castle, N. G., & Handler, S. M. (2013). Use of HIT for adverse event reporting in nursing homes: Barriers and facilitators. *Geriatric Nursing*, *34*(2), 112–115. https://doi.org/10.1016/j.gerinurse.2012.10.003

Walshe, K., & Boyd, A. (2007). Designing regulation: A review. *Regulation*, *3*(2), 1–125.

Wang, A. Y., Sable, J. H., & Spackman, K. A. (2002). The SNOMED clinical terms development process: Refinement and analysis of content. *Proceedings. AMIA Symposium*, 845–849.

World Health Organization. (2009). Global Priorities for Patient Safety Research. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/44205/9789241598620_eng.pdf;jsessionid=AB363CB044ECEFD5D9164891F3F2F4E1?sequence=1

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