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Suicide in older people, attitudes and knowledge of emergency nurses: A multi-centre study

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ABSTRACT

Introduction: Suicide in older people is a public health concern. Emergency nurses are ideally placed to identify suicide risk. Therefore, the aim of this research was to explore emergency nurses' knowledge, confidence and attitudes about suicide in older people.

Methods: This descriptive exploratory study was conducted in four emergency departments in Sydney, Australia. Data were collected using a 28-item survey from a convenience sample of emergency nurses. Descriptive quantitative statistics and conventional content analysis were performed. Ethics approval was provided.

Results: The response rate was 58% (n = 136); the majority were female with an average of seven years emergency experience. The majority (n = 124, 91%) reported that they frequently managed suicidal behaviour and recognized suicide as a common event (80%). 51% (n = 69) recognized that suicide was a common event for older people. Only 16% (n = 22) reported receiving suicide prevention training with 11% feeling confident in managing suicidal behaviour.

Conclusion: The findings contribute to the discourse on how suicide in older people is recognised by emergency nurses. Few nurses considered it a problem for older people and were not confident about their knowledge. There is a need for suicide prevention training as a priority particularly to identify risks in older people.

1. Introduction

1.1. Background and importance

Suicide rates are increasing worldwide [1–3]. Additionally, completed suicides rates in older people (over 65 years) have also increased [4]. In Australasia there are approximately 2500 completed suicides reported annually. Significantly, people aged 85 years and older appear are three times more likely to suicide than the rest of the population [5] which is reflected in data worldwide [6].

Importantly, the number of men over 85 years who complete suicide is more than double that of male teenagers [5]. Of note suicide patterns in older people suggest that males have a higher mortality rate compared to females [7,8]. Older people are more likely to take lethal measures when attempting suicide, which results in fewer suicide attempts per individual [9]. Suicide in older people is a growing public health issue, which requires further understanding and preventative action [10].

Suicidal behaviour and ideation is defined as a continuum of self-risk, often recognized by the most significant negative outcome, death [10]. This may manifest in overt attempts to complete suicide or deliberate self-neglect (e.g. not taking life sustaining medication) resulting in an insidious decline in health (and thus a likely under-reporting of the true suicide rate) [11]. Older people are exposed to a plethora of risk factors associated with suicide, such as social isolation, increased incidence of depression, substance abuse, aging processes, physical co-morbidities, chronic conditions, and grief [12–15]. The complex interaction of such risk factors further compounds the risk of suicide for older people [13,16].

Co-morbidities such as neurodegenerative disorders are often a devastating companion of aging [17]. Evidence suggests that people with neurodegenerative disorders, such as early onset dementia, are particularly vulnerable and often contemplate suicide at the time of diagnosis [18]. The risk of suicide has been found to be higher in the early stages of neurodegenerative disorders; when the individual has capacity and ability to plan suicide [19].

It is known that people are frequently in contact with a health provider thirty days prior to suicide, often presenting with somatic or

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non-mental health related complaints [14,20]. However, older people tend to be less vocal about their suicidal ideation and distress prior to suicide, and common warning signs are subtle and often hidden [21]. Consequently, it can be difficult for healthcare professionals to identify suicidal behaviour or ideation in older people. While there are a number of screening tools used in Australia, little is known about the assessment and management of the suicidal older person in the emergency department (ED). The discourse surrounding suicide in older people is an important step in preventing avoidable death and may contribute to vital changes in the way older people are assessed and managed in the ED.

The ED provides an incredible opportunity for early identification of older people who are at risk of suicide. Emergency nurses are the main health providers to interact and identify patients at risk and therefore are ideally placed to improve outcomes for older people presenting with suicidal behaviour [22]. Studies indicate that primary health professionals and care of the elderly health care workers frequently do not recognize the risk of suicide in older people even when there are warning signs [23] and lack insight into the problem [24,25]. However little is known about emergency nurses' expertise, knowledge and attitudes to older people with mental illness and suicidal behaviour. Given that this can influence the quality of assessment, documentation and management offered to this vulnerable cohort [26] there is an imperative explore emergency nurses' attitudes and knowledge. Therefore, the aim of this research was to explore emergency nurses' knowledge, confidence and attitudes about caring for older suicidal people.

2. Methods

This was a descriptive exploratory study using quantitative (survey) methods.

2.1. Site

A multicentre study was conducted across four EDs within one local health district in metropolitan Sydney, Australia. The health district includes four public hospitals, of which one is a level 6 tertiary referral hospital and three are level 5 district hospitals [27]. The local health district provides services for people located over 900 square kilometers (population catchment: 853,000).

2.2. Sample

Convenience sampling was used. Emergency nurses employed within the four EDs were invited to participate in a survey via recruitment posters and announcements at department meetings. The inclusion criteria included: nurse managers, registered nurses and/or enrolled nurses employed full time or part time in any of the four EDs. Exclusion criteria included assistants in nursing; student nurses, casual and agency nurses.

2.3. Survey instrument

A 28-item survey was developed based on expert opinion (to ensure face validity) and published research. The survey items were designed to explore knowledge, skills, confidence and attitudes towards caring for the older suicidal person presenting to the ED. Many items (n = 12) were closed requiring a 'yes' or 'no' answer and others requiring a response on a 5 point likert scale (n = 8). Two items required free text responses; one was an opportunity to add comments to response. The reliability and validity of the survey was not formally explored however two emergency nurse clinicians (one with extensive research expertise) checked the face validity of the survey.

2.4. Data collection and analysis

Nurses were not approached individually by investigators; the survey (paper) was placed in staff areas for the respondents' convenience. A sealed box was located at the nurse's station and staff room for survey return at a time of the respondents' choosing. The quantitative data related to the survey responses were entered and analysed into an Excel document. Incomplete surveys with more than 20% of items missing were excluded from the analyses.

The study was not designed to test a hypothesis and therefore a sample size calculation was not performed. However every effort was made to invite all nurses working in the study sites in order to obtain a representative sample of nurses working in metropolitan hospitals. Simple descriptive statistics were used to describe the sample and explore the survey data that is counts and frequencies for categorical data and means (standard deviations) and medians (inter-quartile ranges) for continuous data. Conventional content analysis [28] that is counts and categories of words with similar meanings was used to explore the free text responses; the authors reviewed and agreed on the categories that emerged.

2.5. Ethics approval

Ethical approval to undertake the study was obtained from the Local Health District lead Human Research Ethics Committee (approval no. approval no. LNR/15/HAWKE/108). The survey was anonymous and therefore privacy, confidentiality and beneficence were assured. Respondents were provided with a study information sheet and consent implied on completion and return of the survey.

3. Results

3.1. Characteristics of the respondents

Data were collected for three months from April to June 2016. There was a 58% response rate (n = 136). The demographic characteristics of the respondents are shown in Table 1. The majority of respondents were registered nurses (n = 101, 74%), female (n = 115,

Table 1
Demographic characteristics of the sample (n = 136*).

Characteristics	Statistic
Female gender, n (%)	115 (85)
Age, years, mean (SD)	35.0 (11.2)
Nursing experience, years, mean (SD)	11.7 (11.7)
ED experience, years, mean (SD)	7.2 (7.4)
Employment role, n (%)	
Registered Nurse	101 (74)
Clinical Nurse Specialist	10 (8)
Nurse Unit Manager	9 (7)
Clinical Nurse Educator	7 (5)
Clinical Nurse Consultant/ Clinical Nurse Specialist grade 2	5 (3)
Enrolled Nurse	4 (3)
Qualifications, n (%)	
Bachelor	77 (56)
Hospital certificate	13 (9)
Masters	12 (8)
Post graduate certificate	25 (18)
Other	3 (2)
Employment status, n (%)	
Full time	96 (70)
Part time	36 (26)
Casual employees	2 (1)
Type of facility, n (%)	
Tertiary referral hospital	28 (21)
Metropolitan hospital	105 (77)

* Up to 3 missing data for some items; SD = standard deviation.

Table 2
Results of closed question survey responses (n = 136).

Item no.	Content	n* (%)					
		Yes		No		Unsure	
1.	Suicide common event in Australia	109 (80)		8 (6)		15 (11)	
2.	Suicide common event in older people	69 (51)		37 (27)		27 (20)	
	Age, years	18–25	25–35	35–45	45–55	55–65	65–75	75–85	85+
3.	Age group most susceptible to suicide for males	52 (38)	33 (24)	15 (11)	7 (5)	5 (3)	3 (2)	6 (4)	4 (3)
4.	Age group most susceptible to suicide for females	54 (40)	39 (29)	11 (8)	14 (10)	1 –	3 (2)	4 (3)	3 (2)
		Yes		No		Unsure	
5	Suicide more common event in older people experiencing mental health problems	79 (58)		19 (14)		35 (26)	
6	Self-harm common in older people	30 (22)		71 (52)		31 (23)	
8.	Depression a warning sign for suicide	127 (93)		4 (3)		2 (1)	
9.	Depression a more common warning sign in older person	100 (73)		9 (6)		19 (14)	
10.	Substance misuse a problem in older person	69 (51)		35 (26)		28 (20)	
11.	Suicide linked to substance abuse in older person	56 (41)		34 (25)		41 (30)	
12	Which substances commonly misused by older person, n	Prescription drugs: 101 Alcohol: 99 Benzodiazepines: 84 Nicotine: 33 Caffeine: 12 Cannabis: 2 Stimulants (such as Amphetamine): 2					
13.	Common signs and symptoms of suicidal behaviour in older people	Low mood: 118 Hopelessness: 97 Insomnia: 85 Planning suicide: 73 Thoughts/plans to harm self: 68 Agitation: 52			Social isolation: 114 Poor self-care: 96 Apathy: 77 Finalisation personal matters: 70 Self harm: 59 Nihilistic thoughts: 46		
		Yes			No		
14.	Directly cared for someone with suicidal behaviour and or ideation	124 (91)			7 (5)		
15.	Had suicide prevention training	22 (16)			107 (79)		
16.	Like suicide prevention training	125 (91)			6 (4)		
		Not at all	Little	Mod	A lot	Very often	
17.	How confident managing suicidal behaviour	6 (4)	35 (26)	75 (55)	12 (9)	3 (2)	
		Never	Once	> 3	> 5	Rarely	
18.	How often per month encounter suidality behaviour	0	35 (26)	27 (19)	61 (45)	6 (4)	
		Yes			No		
19.	Working when a person suicided or self-harmed	105 (77)			26 (19)		
		Not at all	A little	Mod	A lot	Sign	
20.	Gauge your distress experienced looking after people who suicide/self-harm	3 (2)	40 (29)	50 (37)	16 (12)	7 (5)	
21.	Challenging to care for mental health patients	3 (2)	14 (10)	37 (27)	44 (32)	34 (25)	
22.	Difficult to care for someone deliberate self-harm	4 (3)	11 (8)	54 (40)	48 (35)	15 (11)	
23.	Level of distress today suicidal, self-harm, overdose patients	17 (12)	45 (33)	44 (32)	13 (9)	6 (4)	
24.	Confident feel assessing patients suicidal ideation	3 (2)	41 (30)	58 (43)	27 (19)	3 (2)	
		Yes			No		
25.	Ask about suicidal plans or thoughts	96 (70)			32 (23)		
		Not at all	A little	Mod	A lot	Sign	
26.	Confidence exploring suicidal plans with patients	11 (8)	51 (37)	41 (30)	21 (15)	7 (5)	

* Up to 3 data items missing for some participants; not all percentage values add up to 100%.

85%) with a mean age of 35.0 (11.2) years and 7.2 (7.4) years' experience of emergency nursing.

3.2. Survey findings

The survey findings are presented in Table 2 which demonstrates that 91% (n = 124) of respondents reported that they had directly cared for someone with suicidal behaviour or ideation. Nearly half of respondents (n = 61) reported encountering suicidality more than 5 times per month and a large proportion had been present at the time a person presented with self-harm or suicide.

Of the respondents, 102 (80%) agreed that suicide was a common event in the general population but only about half (n = 69, 51%) of the respondents agreed that it was common in older people. A further 27 (20%) respondents were unsure if it was a common event in older people. Instead, respondents considered the 18–35 year age group as most susceptible to suicide.

Although some respondents agreed that suicide was a common event in older people experiencing mental health problems were unsure (n = 35, 26%) and half (n = 71, 52%) of respondents did not agree that self-harm was common in older people. The most frequent differences in needs between younger people and older people reported by respondents were the increased need for health care related to declining health, co-morbidities and a lack of social support.

Respondents ranked male gender as the highest risk factor for suicide in older people. Previous self-harm, depression and hopelessness were also highly ranked (data not shown). Nurses ranked five protective factors to prevent suicidal behaviour specific to older people as follows: ability to ask for help (n = 38, 31.4%); family support (n = 27, 22.3%); sense of humour (n = 27, 22.3%); personal resilience (n = 20, 16.5%); and social inclusion (n = 9, 7.4%) (data not shown). Of the respondents, 93% (n = 127) agreed that depression was a warning sign for suicide, however, only 73% (n = 100) thought this was relevant for older people.

Respondents most frequently selected low mood, social isolation, hopelessness and poor self-care as signs and symptoms of suicidal behaviour in older people. Half of the respondents correctly identified substance misuse as a risk factor for this population but more than half did not agree or were unsure if it was linked to suicide risk.

Only 16% (n = 22) of respondents reported receiving suicide prevention training with 91% indicating that they would like suicide prevention training. Self-reports of confidence in managing suicidal behavior reflected these results as only 11% (n = 15) reported feeling confident or very confident. Conversely two thirds (n = 88, 64%) of respondents reported feeling moderately to significantly confident to assess patients with suicidal ideation. Only 70% (n = 96) reported asking all patients presenting with mental health concerns if they have suicidal plans or thoughts and a half (n = 69, 50%) reported feeling moderately to significantly confident about exploring suicidal plans with patients. The majority of respondents' (n = 108, 78%) reported some distress associated with working with people who self-harm or suicide.

Respondents provided many examples of how the needs of older people (> 65 years) differ from younger (< 64 years) people. Specifically the six themes such as 'Social isolation', 'Poor function/dependence' and 'Co-morbidities' that emerged from content analysis of their responses suggested considerable insight (Table 3). Their ranking of factors to prevent suicide in older people also revealed some insight into solutions including family support and personal resilience.

4. Discussion

The responses of this predominately female sample of emergency nurses working in hospitals in Sydney (New South Wales, Australia) provided a useful insight into the knowledge, confidence and attitudes of emergency nurses who interact with and care for older people and who are either at risk of attempting suicide, or who have attempted an act of self-harm. The results indicated that while some emergency nurses have a strong understanding of the risk of suicide in older people, there are nurses who have little awareness of the associated risks of suicide in older people. Notably, 20% of respondents were unsure if suicide was a common event in older people and 26% were unsure if suicide was a common event in older people experiencing mental health problems.

Given the global increase in suicide in older people emergency nurses need to be vigilant when undertaking their assessment to ensure early identification of suicidal behaviour and associated risk factors in older people [10]. In the current study, emergency nurses were able to identify that depression was a warning sign for suicide. However, only 73% respondents thought this was relevant to the older person. Perhaps the respondents of this study considered depression in older people was uncommon, and therefore the association between depression and suicide in the older person was underappreciated. Another explanation for this finding might be that, depression is often under reported and detected in this group, as many symptoms of depression or low mood and affect are incorrectly attributed to "normal aging" [29,30]. This attitude is reflected in low suicide risk screening rates by emergency clinicians for older people presenting to the ED [31].

Older people are living longer and with this longevity there is an associated increase in people experiencing neurodegenerative disorders, social isolation and chronic conditions which are risk factors for mental illness and may increase the likelihood of attempted suicide [4,11]. Older people have multiple risk factors for suicide and warrant specific screening and assessment that is informed by a thorough understanding of the risk factors, protective factors and subtle signs of suicidality [10,11]. Emergency nurses are uniquely positioned to screen for suicide risk. Thus it is vital that emergency nurses have the skills to identify and understand the unique profile of suicide in older people. This is particularly important considering the low detection rates, subtle presentation of suicidality, and the high incidence of associated suicide risk factors in this cohort.

The study findings suggest that it is imperative that emergency nurses are aware that depression is a risk factor for suicide in older people. More importantly emergency nurses need to develop greater confidence and find opportunities to assess older peoples' mental health concerns. Suicide prevention training has shown to positively affect attitudes of emergency nurses caring for suicidal patients [32]. However the effect of this training on patient outcomes has not been extensively examined and requires further research.

The majority of respondents of this study were able to correctly identify that substance misuse is a potential problem in older people [33]. However, only a small number of participants recognised that substance abuse was linked to suicidal behaviour. Current evidence suggests that there is a casual link between substance abuse and suicide [34], and that this problem is pertinent for older people [35]. The relationship between substance abuse and suicide in older people is especially concerning considering older people are often taking prescription medications which can easily be misused or abused [36]. Further, it is known that impaired prognosis and co-morbidities are associated with substance misuse in older people [37]. This reiterates the need for vigilance when performing the triage and or health assessment on admission to the ED. Arguably, when individuals present

Table 3
Results of free text response to survey item 7 ('How do older people's needs differ to that of the younger adult population (< 64 years)?', n = 136).

Categories	Exemplars
Co-morbidities/poor health/chronic health	'Their past medial history may play a role' (participant 21) 'Failing health' (participant 76) 'More co-morbidities' (participant 130)
Social isolation	'Less social network' (participant 35) 'Loneliness' (participant 74) 'Social isolation harder to meet people' (participant 137)
Poor function/dependence	'Require more assistance with ADLs' (participant 19) 'Loss of independence' (participant 28) 'Decrease in independence – need more support' (participant 55)
Cognitive impairment	'Decline in cognitive functions' (participant 60) 'Dementia' (participant 69) 'Onset of dementia/Alzheimer's can affect needs' (participant 126)
Financial concerns	'Financial needs' (participant 36) 'Medication and finance' (participant 91) 'loss of work and financial independence' (participant 136)
High risk suicide/depression	'increase incidents and severity of depression' (participant 20) 'Suicide in elderly may be more methodical and planned' (participant 112) 'vulnerable to depression and suicide' (participant 119)

with physical injuries, which are secondary to the misuse or abuse of substances, the physical complaint may take priority for treatment and any precipitating factors may be missed. Factors such as patient load, time constraints and limitations in the documentation at triage of the presentation (that is the priority of a physical complaint) may mean that the cause is never elucidated. It is imperative to investigate whether patients presenting with any complaint that may be associated with substance abuse accidentally or intentionally misused the substance. Arguably, elucidating this vital health history is dependent on the clinician gaining the trust of the older person, using exemplary communication skills and the ability to do this in an environment which is rushed and unfamiliar for the older person.

In our study a significant number of nurses reported low confidence when managing suicidal behaviour. Additionally, some nurses reported some level of distress when reflecting on an incident when they managed a patient with suicidal behaviour, self-harm or had taken an overdose. This may in part be a function of the low number of nurses who reported that they had received formal suicide prevention training. Suicide prevention training may provide nurses with greater confidence, resilience and a more comprehensive understanding of how to better care for older people and improve their health outcomes.

It would also be pertinent to investigate nurses' confidence and distress in relation to this aspect of caring for older people. Further exploratory research would elucidate the underlying reasons for their low confidence and strategies to enhance self-efficacy. In addition research is required to clarify the nature and reasons for the relatively high levels of distress reported by nurses in this study. Addressing this may engender resilience and empower nurses to assist older people expertly.

There are some limitations associated with the study which must be acknowledged. Although the survey was designed with care including attention to current evidence (and face validity) it was not formally tested for validity and reliability. In addition arguably the complexity of caring for suicidal people in practice is not captured adequately using likert items and 'yes'/'no' questions. The findings would have been enhanced by the addition of qualitative data collection such as semi-structured interviews.

Suicide in older people is a potentially avoidable public health problem that needs to be more thoroughly and rapidly assessed. This study investigated some aspects of emergency nurses' knowledge, confidence and attitudes, however a more in-depth understanding of this issue is required. Future research should seek to investigate how emergency departments may better detect and document primary and secondary reasons for presentations by older people. It may be that many older people seen in an ED are vulnerable to suicide, or may even have the risk factors associated with suicide such as isolation and depression, and it is this cohort which would benefit from research into suicide prevention efforts. Educational opportunities that allow nurses to clarify those areas they are unsure of may be beneficial, and importantly may provide an opportunity for nurses to develop the skills in which they may translate theoretical knowledge into actual clinical practice, thus improving the healthcare outcomes of the growing population of older people. Nurses are faced with an extraordinary responsibility to assess and refer patients for suitable interventions. Future research must consider investigating educational opportunities and their impact on nursing confidence and resilience within the domain of mental health for older people.

5. Conclusions

The findings of this survey further contribute to the discourse on how depression and suicide in older people is perceived and addressed by emergency nurses. Despite frequent exposure to people presenting with suicidal behaviour relatively few nurses perceive it as a problem for older people. Indeed, many nurses were not confident about their knowledge and ability to address suicide and associated risk factors in older people. This may in part be a result of an unmet educational need that is suicide prevention training. There is an imperative to address this aspect of emergency care for older people to prevent unnecessary suffering and ensure that the population ages healthily.

Conflict of interest

The authors declare that they have no competing interests in relation to the study reported in this manuscript or the manuscript.

Ethical statement

This study was undertaken after ethical and scientific review by the Northern Sydney Local Health District lead Human Research Ethics Committee (approval no. LNR/15/HAWKE/108)

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