the Australian College of Mental Health Nurses Inc.

Response to questions taken on notice by the ACMHN

Senate Community Affairs References Committee,

Inquiry into Suicide in Australia,

24 March 2010

1. **The Committee asked whether the ACMHN has any feedback on the differences between states on the how well emergency departments are equipped to provide mental health triage support, particularly after hours.**

The ACMHN has not received any feedback from members on this issue.

2. **Whether there have been any evaluations of mental health guidelines for emergency departments.**

The ACMHN can direct the Committee to some recent reviews of mental health guidelines for emergency departments:

1. A recent article concluded: "Currently clients with a mental illness presenting to the Emergency Department may be triaged against one of four mental health triage scales. Research has shown that the mental health descriptors in the Australasian Triage Scale are not as reliable as a specialised mental health triage scale."
   ('Review of triage reform: the case for national consensus on a single triage scale for clients with a mental illness in Australian emergency departments', Marc Broadbent, Anne Creaton, Lorna Moxham and Trudy Dwyer, (2010) *Journal of Clinical Nursing*, 19, 712–715) A copy of this article is attached.

2. In NSW, the "Red Book" (formally known as Mental Health for Emergency Departments – A Reference Guide 2009 by Mental Health and Drug and Alcohol Office, NSW Department of Health, Sydney, 2009) which is a

reference guide for clinicians working as first responders to mental health presentations, particularly for emergency and acute presentations has recently be re-issued:

"This document is a revision and update of the 'Mental Health for Emergency Departments – A Reference Guide' amended version May 2002; and replaces that document. It was developed following an extensive consultation process and is the result of collaboration between mental health and emergency department clinicians. Collaboration between all service providers is essential for the effective implementation of this Reference Guide and delivery of best practice clinical care."

The Red Book has been a popular publication in wide demand. While no formal evaluation was been conducted into it, we know it is widely used, not just by Emergency Departments, but also by mental health services. Other states have also sought copies of the publication.

3. **Any ideas or suggestions around a telephone service that can provide a range of support depending on the callers' needs: from counselling, to clinical interventions, to effective connection with a local service.**

To be provided at a later date.

4. **The geographic distribution of mental health nurses and College members. In addition, are more mental health nurses being attracted to rural and remote areas?**

The Australian Institute of Health and Welfare publishes statistics on the mental health workforce. It's publication, Mental health services in Australia 2005–06 despite being 5 years old, is the most comprehensive analysis of the workforce of mental health nurses. It reports on the geographic distribution of mental health nurses as follows:

Table 13.10: Employed mental health nurses, average total hours worked per week, and FTE and FTE per 100,000 population, by region[(a)], 2005

| Region[(a)] | Mental health nurses | | | | All nurses |
	Number	Average total hours worked per week	FTE	FTE per 100,000 population[(b)]	FTE per 100,000 population[(b)]
Major cities	8,818	37.1	8,609	64	989
Inner regional	3,058	37.0	2,977	69	1,019
Outer regional	865	38.2	870	42	1,049
Remote and Very remote	143	43.3	163	32	1,026
Not reported	588	34.8	538	. .	. .
Total[(c)]	**13,472**	**37.2**	**13,188**	**65**	**1,040**

(a) Region is derived from the postcode of the respondent's main job and is classified according to the remoteness area structure within the Australian Standard Geographical Classification (ABS 2002a). This data should be treated with caution due to the relatively large number of 'Not reported' values for region, relative to the number in outer regional and remote and very remote regions.

(b) Crude rate based on the Australian estimated resident population as at 30 June 2005.

(c) The number for each variable may not sum to the total due to the estimation process and rounding.

. . Not applicable.

Note: FTE based on 38-hour standard working week. Note FTE rates differ from those published in *Nursing and midwifery labour force 2005* (AIHW 2008b) due to revised population estimates.

Source: AIHW Nursing and Midwifery Labour Force Census 2005.

The ACMHN membership base is similarly geographically dispersed, but with a slightly higher proportion of membership in regional areas compared with this national survey.

5. Further information about the attitude of health professionals to suicide.

During the hearing, the Committee asked about prejudgement by health professionals. A member of the College has provided a copy of a study into non-mental health professional attitudes to suicide prevention which concluded:

'Attendance at training on suicide risk awareness by non-mental health professionals is further supported by our study. It is likely that attitudinal benefits will accrue if all health professionals receive some level of suicide prevention education. A key approach in delivering education should be in challenging health professionals' negative attitudes towards suicide.'

'Health professionals attitudes towards suicide prevention initiatives**",** Brunero S, Smith J., Bates E. & Fairbrother G. (2008) *Journal of Psychiatric and Mental Health Nursing* **15**, 588–594. A copy of this article is attached.

CLINICAL ISSUES

Review of triage reform: the case for national consensus on a single triage scale for clients with a mental illness in Australian emergency departments

Marc Broadbent, Anne Creaton, Lorna Moxham and Trudy Dwyer

Aims and objectives. The aim of this paper is to examine the use of mental health triage scales in Australian emergency departments (EDs) and to explore the use of the Australasian Triage Scale (ATS) with existing mental health triage scales.

Background. Since the introduction of mainstreaming and deinstitutionalisation in Australian mental health care, the number of clients presenting to Australian EDs has been increasing. It has become apparent that the lack of mental health descriptors in existing triage scales diminishes the ability of ED triage staff to accurately assess clients with a mental illness. In response to this, specialised mental health triage scales have been developed and introduced into practice. Concurrently, mental health descriptors have been incorporated into the ATS used across Australian EDs.

Design. A review of English language literature was conducted.

Method. The data bases Proquest, Synergy and CINAHL were searched using the key words 'emergency department', 'triage', 'mental health' and again using the term 'emergency mental health triage'.

Results. There is a paucity of literature surrounding the use of mental health triage scales in Australian EDs; 18 articles were found to be directly relevant to the subject matter.

Conclusion. Currently clients with a mental illness presenting to the ED may be triaged against one of four mental health triage scales. Research has shown that the mental health descriptors in the ATS are not as reliable as a specialised mental health triage scale.

Relevance to clinical practice. This has implications for clinical practice on two levels. First, it affects the initial triage assessment in the ED and the ability for mental health clinicians to respond in a timely manner and this will have an impact on clinical outcomes. Second, the use of the mental health triage criteria in the ATS may misrepresent ED workloads and affect data pertaining to ED performance.

Key words: Australia, emergency department, mental health, nursing, review, triage

Introduction

Improvements in the initial assessment and management of clients in the ED are inextricably linked to improvements in the process of triage. Triage is derived from the French verb

'trier' meaning to pick or cull (The Macquarie Concise Dictionary 2003). In health, it has its origins in the Napoleonic wars (FitzGerald 1996). As a process in EDs, triage has been evolving since 1975 and is now a primary process in Australian EDs. The principal tool that is used is

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the five tiered Australasian Triage Scale (ATS) (Australasian College For Emergency Medicine 2000b). Since 1993 work has been done to improve the responsiveness of EDs to the increasing number of clients presenting with a mental illness. The principal mechanism for this has been the introduction of a specialised mental health triage scale (MHTS) (Smart *et al.* 1999, Tobin *et al.* 1999, Broadbent *et al.* 2002). This paper examines the use of the ATS against the use of MHTS across Australia.

Background

The Australian foundation triage scale implemented at the Box Hill Hospital in 1975 (Brentnall 1997) was designed as a system for improving initial emergency assessment. The Box Hill Triage Scale has subsequently been adapted and tested to develop the National Triage Scale (NTS) (FitzGerald 1996), the precursor for the ATS which is used in EDs throughout Australasia.

In the early 1990s it became apparent to the staff of the Royal Hobart Hospital ED, Tasmania and the South Eastern Sydney Area Health Service (SESAHS) that because the NTS had its roots in physical injury and illness it did not cater for patients with a mental illness who were increasingly presenting to the ED (Smart *et al.* 1999). Consequently staff from the ED and mental health service collaboratively developed a MHTS as a vehicle for improving service delivery to clients with a mental illness presenting to the ED (Smart *et al.* 1999, Tobin *et al.* 1999). In 2001 the SESAHS triage scale was successfully incorporated into practice in Barwon Health ED, Victoria, as a way of improving service delivery (Broadbent *et al.* 2002).

In conjunction with the development of specialised MHTS, mental health triage nursing has emerged as a specialty in the profession of mental health nursing. It is a complex, stressful role that involves high levels of responsibility, clinical decision making and multiple role functions (Sands 2004). It is therefore important that the referral of clients from the ED to Mental Health practitioners is consistent and accurately reflects client acuity. The importance of this cannot be overestimated, particularly as the number of clients with a mental illness presenting to the ED has been increasing due to the effect of mainstreaming (McDonough *et al.* 2004). Hundertmark (2002) states that between 1996–2000 the number of adult clients with mental illness presenting to the Flinders Medical Centre in South Australia rose three hundred and twenty percent with a steady rise of thirty five percent per year. A report on mental health presentations to EDs in Victoria found that between 1999–2001 there had been a 14% annual increase in mental health presentations to emergency departments. The report identifies

the demand on community mental health care and the relatively low number of inpatient beds as putting increased pressure on the interface of these Victorian ED's (Department of Human Services 2006). These examples help quantify the recurring theme that is evident in the literature that EDs have been subject to increased presentations by clients with mental illness (Broadbent *et al.* 2002, Summers & Happell 2003, Webster & Harrison 2004, Kalucy *et al.* 2005, Stuhlmiller *et al.* 2005).

The use of MHTS in Australia

Clients with physical injury and illness presenting to EDs across Australia are triaged using a well established triage scale, the ATS. Clients with mental illness presenting to EDs across Australia, however, are triaged by ED triage nurses using one of the four principal MHTS; (1) The ATS with its mental health descriptors, (2) Victorian Emergency Department Mental Health Triage Tool (Potter & Huckson 2006), (3) The South Eastern Sydney Area Health Service (SESAHS) MHTS (Tobin *et al.* 1999), or (4) The Royal Hobart MHTS (Smart *et al.* 1999). Locally developed MHTS such as the triage risk assessment tool as described by Heslop *et al.* (2000) are in use, but these have not achieved the same widespread acceptance.

It is postulated that this disparate situation arose because, while Smart *et al.* (1999) and Tobin *et al.* (1999) were developing and reporting on their MHTS, the Australian College of Emergency Medicine released the newly revised ATS that contained mental health descriptors (Australasian College For Emergency Medicine 2000a). Thus EDs were now able to use the ATS to assess clients with mental illness without having to refer to a separate although more specialised MHTS (Broadbent *et al.* 2007).

Despite the inclusion of mental health descriptors in the ATS, the use of specialised MHTS has gained increasing acceptance in clinical practice across Australia (Broadbent *et al.* 2007). Reviews of the Royal Hobart MHTS (Happell *et al.* 2003, King *et al.* 2004, Frank *et al.* 2005) describe its use in clinical practice from several perspectives. These reviews though, lacked measurement or description of improvements in operational service delivery to clients with a mental illness (Broadbent *et al.* 2007). The SESAHS MHTS has also been reported as being in quite widespread use across Victoria, Australia (Potter and Huckson 2006). This particular triage scale was successfully implemented into practice in The Geelong Hospital (Broadbent *et al.* 2002) and outcome data were used by the National Institute of Clinical Studies as evidence to drive change in the ED triage and management of clients with a mental illness across nineteen EDs in Victoria

(Potter & Huckson 2006). The central part of this project was the Victorian Emergency Department Triage Tool which blended the mental health descriptors from the ATS with the SESAHS MHTS as adapted by The Geelong Hospital (Broadbent M 2001 Unpublished report). This blended triage scale has now been included in the Emergency Triage Education Kit (ETEK) (Commonwealth Department of Health and Aging 2007) in a chapter devoted to emergency mental health triage. This educational resource has been released nationally to standardise the training of registered nurses in the practice of emergency triage. Training such as this can increase the understanding and confidence of triage staff and ultimately improve the quality of service delivery resulting in better client outcomes.

Notwithstanding the widespread use of MHTS other than the ATS across Australia, most EDs continue to use the ATS for mental health triage assessment instead of adopting a specialised MHTS into their systems of clinical assessment. This is despite the evidence that the use of specialised MHTS improves the competence and confidence of general trained nurses in the assessment of clients with mental illness in the ED (Smart *et al.* 1999, Broadbent *et al.* 2004) and the national dissemination of the MHTS in the ETEK.

Need for change

Triage is a critical process in EDs and every effort needs to be made to ensure that triage of clients with a mental illness is as consistent as the triage assessment of clients with physical conditions. Mechanisms for ensuring consistency include the use of objective documentation and criteria based assessment (Creaton *et al.* 2006). Creaton *et al.* (2006) also argue that a triage scale must be both reliable and valid, that is, it should have high inter- and intra-rater reliability and accurately correlate with morbidity and other measures of clinical urgency. This is essential for access to healthcare and prioritisation of resource use. ATS data allows casemix comparison between organisations and waiting time by triage category is a key performance indicator for EDs. Previous studies have examined ATS reliability for general ED presentations. However the ATS as it relates to mental health presentations has not, until now, undergone the same testing (Creaton *et al.* 2006).

In their seminal paper examining the inter-rater reliability of the mental health components of the ATS, Creaton *et al.* (2006) played video vignettes of mental health triage scenarios to triage nurses from a range of public hospitals. The videos portrayed intermediate clinical urgency against a background of very high or very low ED activity. Using the ATS the triage nurses were asked to allocate a triage score based on perceived urgency. While this study was not designed to measure ATS validity for mental health presentations, which may be done using measures such as correlation with admission rates, the results indicated that the ATS, as it relates to mental health presentations, 'demonstrates poor inter-rater reliability and that reliability is impacted on by factors unrelated to clinical presentation' (Creaton *et al.* 2006, p. 2). This finding is of critical importance as its questions the consistency of mental health triage assessments made by triage nurses using the current ATS and consequently may affect client waiting times. This has an impact on clinical outcomes and may misrepresent ED workloads and affect data pertaining to ED performance.

Apart from the ATS with its mental health descriptors, the other MHTS most widely adopted across Australia is the scale developed by the SESAHS (Tobin *et al.* 1999). Initially adapted by Broadbent (2001) to reflect practice requirements under the Victorian Mental Health Act (1986) it was embraced by the Victorian Department of Health and the National Institute of Clinical Studies and adapted for The Victorian Mental Health Triage Project by using it in conjunction with the ATS (Potter & Huckson 2006). This MHTS, known as the Victorian Emergency Department Mental Health Triage Tool, was introduced throughout 19 EDs in Victoria. The evaluation of this project demonstrated that the introduction of a specialised MHTS improved the confidence of ED triage nurses in the assessment of clients with a mental illness presenting to the ED (Potter & Huckson 2006). This finding is consistent with that of Broadbent *et al.* (2002) following the introduction of the SESAHS MHTS at Barwon Health, Victoria and against a review of all published results of MHTS implementation (Broadbent *et al.* 2004). It is important to note that these findings of increased clinician confidence made following the publication of the work of Smart *et al.* (1999) and Tobin *et al.* (1999) were done in the context that the ATS was in use in the ED prior to the MHTS being introduced. Other reported outcomes of the use of the SESAHS MHTS include improved triage practice as it relates to clients with a mental illness, improved collaboration between ED and mental health nurses and improved patient outcomes (Tobin *et al.* 1999, Broadbent 2001, Potter & Huckson 2006).

There is conclusive evidence that, for those EDs using the SESAHS MHTS, improvements across a range of parametric measures relating to the care of clients with a mental illness in the ED have occurred (Smart *et al.* 1999, Tobin *et al.* 1999, Broadbent *et al.* 2002). Coupled with the findings of Creaton *et al.* (2006) that cast doubt on the reliability of the mental health criteria in the ATS there is now a case for a review of the national approach to the triage of clients with mental illness in the ED.

Conclusion

This evidence indicates that it is imperative that EDs and mental health services have a triage system that is comparable to those used for clients with physical injury and illness. As argued, currently this is not the case. The ATS demonstrates poor inter-rater reliability and that factors unrelated to clinical presentation have an impact on reliability (Creaton *et al.* 2006). The SESAHS scale has good inter-rater reliability (Tobin *et al.* 1999) and improves performance across a range of measures (Broadbent M 2001 Unpublished report; Broadbent *et al.* 2002, Tobin *et al.* 1999). In Australia clients with physical injury and illness with be triaged against one set of criteria, the ATS. Clients with a mental illness however may be triaged against one of four MHTS currently in use. It is time for a consistent and national approach to clients with a mental illness presenting to the ED. This starts with an accurate and consistent triage process. Current evidence would suggest the SESAHS MHTS as the scale of choice given its widespread dissemination and effectiveness, however more research into triage practices and processes for clients with a mental illness would strengthen this recommendation.

Contributions

Study design: MB; data collection and analysis: MB, AC and manuscript preparation: MB, LM, TD.

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Health professionals' attitudes towards suicide prevention initiatives

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Health professionals attitudes towards suicide prevention initiatives

Preventing suicide can depend upon the ability of a range of different health professionals to make accurate suicide risk assessments and treatment plans. The attitudes that clinicians hold towards suicide prevention initiatives may influence their suicide risk assessment and management skills. This study measures a group of non-mental health professionals' attitude towards suicide prevention initiatives. Health professionals that had attended suicide prevention education showed significantly more positive attitudes towards suicide prevention initiatives. The findings in this study further support the effectiveness of educating non-mental health professionals in suicide risk awareness and management.

Keywords: consultation liaison nursing, education, risk management, self-harm, suicide

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Introduction

In recent decades, Australia has seen a higher rate of death from suicides than from motor vehicle accidents. In 2003, there were 2213 deaths from suicide and 1633 from motor vehicle accidents. Suicide deaths for males currently stand at 17.7 per 100 000 and females 4.7 per 100 000 (Australian Bureau of Statistics 2004). Suicide prevention has been named a priority for Australian health services by the National Safety Priorities in Mental Health Plan (Department of Health and Ageing 2005).

Preventing suicide can depend on the ability of clinicians to make judgements about a person's suicide risk status. It is generally accepted that the mental health professional is the most competent person to undertake a full risk assessment of the suicidal patient. The general health professional is often placed in situations where potential patient suicide risk is ascertained via direct report from the patient, observation of behaviour or from patient history review. In these clinical situations, the general nurse, medical officer or allied health professional has responsibility to conduct a

brief risk assessment and then refer on to the appropriate mental health professional for a comprehensive psychiatric assessment (Department of Health 2004). In this environment, suicide prevention skills and awareness among general health professionals are of paramount importance in achieving successful prevention outcomes.

Descriptive data on suicide in the general hospital setting have shown that preferred methods include jumping and hanging (White *et al.* 1995, Hung *et al.* 2000, Suominen *et al.* 2002). A higher incidence has been recorded after normal business hours (Department of Health 2004). Suicide in general hospital patients has been estimated at three times the normal population rate (Dhossche *et al.* 2001). Apart from knowledge and skill set, health professionals' attitudes can be an important factor in determining successful response to a suicidal patient (Valente 2002, Valente & Saunders 2004).

Most studies have described health professionals' attitudes towards suicide itself rather than attitudes to preventive efforts (Anderson 1997, Herron *et al.* 2001). Anderson (1997) in the UK studied community mental health and

emergency department nurses' attitudes towards suicidal behaviour using some items from the 'Suicide Opinion Questionnaire' (Domino *et al*. 1982) and new statements created by the study authors. Both groups of nurses generally reported positive attitudes with no statistically significant difference found between them. Some differences in attitude were associated with length of experience. Community mental health nurses with less experience had significantly more positive attitudes, while there was no difference in attitude among accident and emergency nurses in relation to length of experience. Younger community mental health nurses had marginally more positive attitudes, while accident and emergency nurses showed no difference in attitude with regard to age (Anderson 1997). Samuelsson & Asberg (2002) studied psychiatric nurses in Sweden using the 'Understanding of Suicide Attempt Scale'. The authors found that attitudes towards working with suicidal patients were significantly improved in the area of understanding and willingness to work with this patient group, following a 12-session education programme. Morriss *et al*. (1999) in the UK, devised and evaluated a training package for non-psychiatrically trained staff to assess suicide risk and to manage the suicidal patient. At 1-month post rating, significant improvements in problem solving, provision of immediate support and future coping were shown. The 'Attitudes to Suicide Prevention (ATSP) Scale' (Herron *et al*. 2001) was used by Appleby *et al*. (2000) in the UK to assess success of staff training in primary care services, emergency departments and mental health services. Attitudes improved significantly only for the emergency department group. Herron *et al*. (2001) used the ATSP Scale to show more positive attitudes among mental health professionals than general practitioners (GPs) and emergency department nurses. In this study, positive attitude was associated with previous training in suicide risk assessment.

Botega *et al*. (2005) in Brazil, developed the 'Suicide Behaviour Attitude Questionnaire' using a sample of 317 nurses. These authors found that belief in the right to suicide is stronger among older professionals, those who had taken care of suicidal patients, those who had a family history of suicide, those who were of Protestant religion and those that attended church more frequently.

Study aim

This study aimed to examine factors associated with attitude towards suicide prevention initiatives among general health professionals, with the purpose of guiding choice re-education initiatives for this group of staff. Three research questions were also proposed: (1) Do Staff who have attended suicide prevention education have more positive attitudes? (2) Do Staff with professional experience in working with suicidal patients have more positive attitudes? (3) Does personal experience with suicide result in more positive ATSP initiatives?

Method

A cross-sectional survey using the 'ATSP Scale' (Herron *et al*. 2001), was conducted among a sample of nurses, midwives and allied health professionals working at one hospital campus of the South Eastern Sydney Illawarra Area Health Service. The ATSP Scale was chosen as the measure of staff attitude, as it is directly concerned with ATSP and showed good internal consistency (Cronbach's alpha = 0.77) and high test–retest reliability in the validation study (Herron *et al*. 2001). Personal and work-related demographic information was also collected, as well as information which indicated prior suicide awareness education exposure and exposure to suicide in respondents' work and personal life. Two hundred and forty ($n = 240$) healthcare professionals were mailed the survey via the internal hospital network, in February 2006. The South Eastern Sydney Ethics Committee approved the study. All data were entered into SPSS version 14.0 for analysis.

Suicide prevention education

Suicide prevention education had recently been in place, with attendance on a voluntary basis, between November 2005 and January 2006 at the study site. Using a problem-based learning framework (Trevena 2007), an educational package comprising of a 1-h face-to-face group session and follow-up self-directed material was developed. Groups of health professionals, ranging in size from 6 to 15, attended the sessions. Using group facilitation skills, sessions began by asking clinicians to think of a clinical case where a patient they had been working had become suicidal. Once a clinical case was identified, the case was then referred to throughout the hour discussion. Participant's attitudes were then challenged; information on suicide rates, suicide risk factors, ATSP and management of the suicidal patient were interwoven into the discussion session. A handout and information on how to access hospital-wide policies and NSW department of health 'Suicide risk assessment and management training' e-learning package was also distributed (Department of Health 2004).

Results

Of the 240 surveys distributed, 143 were returned. Of these, a total of nine people identified themselves as mental health professionals. These nine subjects were removed from the total sample as the purpose of the study was

Table 1
Demographics

Males	*n* = 5 (3.7%)
Females	*n* = 129 (96.3%)
Age mean	38 years
Had previous suicide prevention education	44 (32.8%)
Time in speciality range	1 months to 30 years (mean = 8.5 years)
Midwives	36 (26.9%)
Nursing	85 (63.5%)
Allied health	13 (9.6%)
Had a patient who suicided	8 (6%)
Had a patient who attempted suicide	26 (19.4%)
Family/friend attempted suicide	60 (44.8%)
Family/friend who committed suicide	45 (33.6%)
Personally attempted suicide	6 (4.5%)

to understand non-mental health professional attitudes, leaving a total working study sample of *n* = 134 and a final response rate of 55.8%. Sample characteristics are illustrated in Table 1. The sample was predominantly female, with an average age of 38 years. Participants had worked in their speciality for an average of 8.5 years (range: 1 month to 30 years). Forty-four or 32.8% of the sample identified having participated in the hospital-wide education programme. Mean total ATSP scale score for the sample was 35.2. The sample of 14 ATSP items (*n* = 134) was subject to internal consistency analysis in order to ascertain reliability. The scale yielded a Cronbach's alpha value of 0.76 – very similar to that obtained by the authors (0.77) in their validation study (Herron *et al.* 2001). This indicates that internal consistency was present in the scoring.

Attitudes to Suicide Prevention Scale totals by subject characteristics

Prior suicide prevention education and two indicators of personal exposure to suicide yielded significant relationships with ATSP total. Those who had undergone previous training yielded lower (or attitudinally positive) scores (mean 33.0) than those who had not (mean 36.2) (one-way analysis of variance: $F = 7.8$; $P = 0.006$). Those who had had a friend or relative attempt suicide ($F = 4.5$; $P = 0.035$) and those who had had a friend or relative commit suicide ($F = 4.0$; $P = 0.048$) were also found to be more likely to yield lower ATSP total scores. Professional experience of suicide showed no statistically significant relationship to attitudes on the ATSP.

Individual Attitudes to Suicide Prevention item results by subject characteristics

Results for each of the 14 ATSP items comprising the total were analysed against prior suicide awareness training and

displayed in Table 2. Individual ATSP question items were assessed against all other subject characteristics canvassed. Significant associations arising from this analysis are summarized in Table 3.

Longer length of time spent in a clinical speciality was positively correlated with agreement to the following negative statements: 'I resent being asked to do more about suicide'; 'Suicide prevention is not my responsibility'; 'If people are serious about committing suicide, they don't tell anyone'; 'I feel defensive when people offer advice about suicide prevention'; 'I don't feel comfortable assessing someone for suicide risk'; 'There is no way of knowing who is going to commit suicide'.

Prior exposure to suicide or attempted suicide (patient or family/friend) was associated with more positive ratings on ratings on 'I resent being asked to do more about suicide'; 'If people are serious about committing suicide they don't tell anyone'; 'If a person survives a suicide attempt, then this was a ploy for attention'; and 'Suicide prevention resources are a draw on resources'. People with prior suicide exposure were also more likely to agree with the statement 'People have the right to take their own lives'.

Health professionals who answered yes to having a lifetime attempt at suicide were less likely to agree with the statement 'It is easy for people not involved in clinical practice to make judgements about suicide prevention'. Nurses and midwives yielded somewhat more negative attitudes compared with allied/medical workers on 'I resent being asked to do more about suicide'; 'Making more funds available would make no difference to the suicide rate'; and 'working with suicide patients is rewarding'. Gender and age were not important mediators of variation on any of the individual scale items.

Discussion

Understanding communities' attitudes towards suicide has been proposed as key to the design and implementation of educational and preventative efforts (Domino *et al.* 1982). It is argued that community attitudes towards suicide may be related to rates of suicide, particularly among younger populations (Jenner & Niesing 2000). The influence of attitudes is best understood in the context of social-psychological theories of reasoned behaviour that hold that attitudes are important determinants of future behaviours. Theories of reasoned action and planned behaviour have been used to explain relationships between attitudes and preventive behaviour in HIV (Albarracin *et al.* 2001). This study demonstrated a number of factors that can be associated with levels of attitude in the non-mental health professional. The prominent finding and answer to the first study question is the significant difference between trained

Table 2

Individual Attitudes to Suicide Prevention items by prior suicide awareness training ($n = 134$)

Statement 1 = strongly disagree 2 = disagree 3 = uncertain 4 = agree 5 = strongly agree	Overall median score	Previous training Median (% in agreement)[1] $n = 44$	No previous training Median (% in agreement)[1] $n = 90$	P[2]
1. I resent being asked to do more about suicide	2	2 (0)	2 (8)	0.01*
2. Suicide prevention is not my responsibility	2	2 (2)	2 (12)	0.005*
3. Making more funds available to the appropriate health services would make no difference to the suicide rate	2	2 (9)	2 (8)	0.49
4. Working with suicidal patients is rewarding	3	3 (19)	3 (6)	0.03*
5. If people are serious about committing suicide they don't tell anyone	3	2 (18)	3 (22)	0.009*
6. I feel defensive when people offer advice about suicide prevention	2	2 (0)	2 (4)	0.24
7. It is easy for people not involved in clinical practice to make judgements about suicide prevention	3	4 (52)	3 (46)	0.34
8. If a person survives a suicide attempt then this was a ploy for attention	2	2 (11)	2 (12)	0.03*
9. People have the right to take their own lives	3	3 (23)	3 (21)	0.17
10. As unemployment and poverty are the main causes of suicide, there is little that an individual can do to prevent it	2	2 (2)	2 (4)	0.39
11. I don't feel comfortable assessing someone for suicide risk	4	2.5 (39)	4 (57)	0.003*
12. Suicide prevention measures are a draw on resources, which would be more useful elsewhere	2	2 (2)	2 (6)	0.15
13. There is no way of knowing who is going to commit suicide	3	2 (14)	3 (19)	0.05
14. What proportion of suicides do you consider preventable (none to all)	2	2 (18)	3 (16)	0.34

[1]Per cent in agreement calculated by adding 4's and 5's on the Likert scale. [2]Difference between previously trained staff and non-previously trained staff (Mann–Whitney U-test).

*$P < 0.05$.

and non-trained staff in a positive direction for trained staff. As supported by other studies (Neimeyer & Pfeiffer 1994, Morriss *et al.* 1999, Appleby *et al.* 2000, Samuelsson & Asberg 2002), targeted training can have an effect on improving attitudes, skills and knowledge. The second study question – whether professional experience with suicide has an effect on attitude – was not supported in this study. This finding runs counter to those of Samuelsson & Asberg (2002) and Botega *et al.* (2005) who found that professional experience of treating a suicidal patient was associated with more positive attitudes (Samuelsson & Asberg 2002, Botega *et al.* 2005).

The third question, personal experience with suicide (family, close friend or others), was shown to be related to more positive attitude. Botega *et al.* (2005) demonstrated a positive effect of personal experience on attitudes. Neimeyer *et al.* (2001) found a negative relationship between personal history of suicidal behaviour and suicide counselling skills, which was significant in professionally trained personnel.

Midwives, nurses and allied health professionals showed no statistically significant difference in total ATSP scores. Herron *et al.* (2001), using the ATSP in a UK study, reported significant difference on attitude between emergency nurses mean total (37.9), GPs (37.2), community psychiatric nurses (31.9) and psychiatrists (34.4). Overall mean total score in our study was 35.2 – less than then

reported UK means for GPs and emergency nurses but not as low as the mean for community psychiatric nurses, who may be considered as an expert group. These results are encouraging and set a benchmark for non-mental health professionals in Australia.

In Table 2, summary of differences between trained and untrained staff on individual ATSP items yields an encouraging picture with regards the effects of a suicide prevention programme. The by-item results between trained and untrained staff are mostly reassuring. For example, there was little agreement with the idea that 'suicide prevention measures are a draw on resources, which would be more useful elsewhere' in either group (2.3% trained vs. 5.6% non-trained). Appleby *et al.* (2000) surveyed 82 mental and non-mental health staff in the UK using the ATSP. This study showed a positive training effect. Five ATSP items showed a significant difference between trained and untrained staff with only one ATSP item concurring with our study finding: 'If people are serious about committing suicide they don't tell anyone'.

In Table 3, analysis of individual ATSP items by subject characteristics indicates that time in speciality is a dominant meditating effect on attitude. Greater time in specialty correlates with higher ATSP scores or more negative attitudes in six of the 14 items. It is difficult to gauge the reasons for this, but the finding is not new. Anderson (1997) located a similar negative association among

Table 3
Significant relationships between subject characteristics and the 14 individual ATSP items ($n = 134$)

ATSP questionnaire item	Subject characteristic(s) significantly associated with agreement to item	Statistic employed	*P*
1. I resent being asked to do more about suicide	Staff category = nursing/midwifery	Mann–Whitney test, $z = -2.5$	0.01
	Greater time in specialty	Spearman's rho = 0.19	0.03
	Had a patient attempt suicide = No	Mann–Whitney test, $z = -2.5$	0.01
2. Suicide prevention is not my responsibility	Greater time in specialty	Spearman's rho = 0.28	0.001
3. Making more funds available to the appropriate health services would make no difference to the suicide rate	Staff category = nursing/midwifery	Mann–Whitney test, $z = -1.9$	0.05
4. Working with suicidal patients is rewarding	Staff category = non-nursing/midwifery	Mann–Whitney test, $z = -2.2$	0.03
5. If people are serious about committing suicide they don't tell anyone	Greater time in specialty	Spearman's rho = 0.19	0.025
	Had a patient attempt suicide = No	Mann–Whitney test, $z = -3.0$	0.003
	Had close family or friend commit suicide = No	Mann–Whitney test, $z = -2.7$	0.007
	Had close family or friend attempt suicide = No	Mann–Whitney test, $z = -2.0$	0.05
6. I feel defensive when people offer advice about suicide prevention	Greater time in specialty	Spearman's rho = 0.30	<0.0001
7. It is easy for people not involved in clinical practice to make judgements about suicide prevention	Have attempted suicide = No	Mann–Whitney test, $z = -2.3$	0.02
8. If a person survives a suicide attempt then this was a ploy for attention	Had a close family or friend commit suicide = No	Mann–Whitney test, $z = -2.1$	0.04
9. People have the right to take their own lives	Had a patient attempt suicide = Yes	Mann–Whitney test, $z = -2.0$	0.04
	Had a patient commit suicide = Yes	Mann–Whitney test, $z = -2.5$	0.01
10. As unemployment and poverty are the main causes of suicide, there is little that an individual can do to prevent it	No significant associations	–	–
11. I don't feel comfortable assessing someone for suicide risk	Greater time in specialty	Spearman's rho = 0.35	<0.0001
12. Suicide prevention measures are a draw on resources, which would be more useful elsewhere	Had close family or friend attempt suicide = No	Mann–Whitney test, $z = -2.0$	0.04
13. There is no way of knowing who is going to commit suicide	Greater time in specialty	Spearman's rho = 0.28	0.001
14. What proportion of suicides do you consider preventable (none to all)	No significant associations	–	–

ATSP, Attitudes to Suicide Prevention.

community mental health nurses and Botega *et al.* (2005) found a correlation between negative attitude and older age among a sample of nurses. McLaughlin (1994), in a survey of casualty nurses in the UK, found the opposite, with older age and more experience being associated with more positive attitudes. At this point, the key interpretation of these very mixed findings is to ensure that all staff attend training despite their length of time of employment or within their speciality.

Personal exposure to attempted suicide and actual suicide attempt among staff members appears high in our study, although there are few studies to benchmark this against. A lifetime attempt at suicide was reported by 4.5% of health professionals in our study. The current Australian general population attempted suicide rate is reported at 300 per 100 000 for females and 150 per 100 000 for males. Expressed as a percentage, the female rate is 0.3% (Andrews *et al.* 1999). Frank & Dingle (1999) in a study of US women physicians found that in a sample of 4501, 1.5% had attempted suicide and 19.5% had a history of depression. Hem *et al.* (2000) in a cross-sectional survey of physicians found that 3.1% of female physicians ($n = 287$) had made a suicide attempt. This was significantly greater than the rate among male physicians (0.9%). Suicide death rate among healthcare workers compared with all other suicides in a study in the UK showed that female nurses were one and a half times more likely to die from suicide when compared with the general population (Kelly & Bunting 1998). Clearly, nurses and doctors are among the highest risk groups for suicide, yet they are also the people who are assisting in the front line for its prevention, treatment and management. Neimeyer *et al.* (2001) demonstrated that a personal history of suicidality and a belief that suicide is a personal right accounted for modest, but significant negative variance in a measure of suicide prevention skill level, beyond that which was accounted for by professional factors. Our finding that more positive attitudes related to personal exposure differs from that of Neimeyer *et al.* (2001). This issue will need more thorough research analysis in the future.

Implications for training of non-mental health professionals

There is a range of education programmes on suicide risk management dealing with mental health professionals, some with para-professionals. Appelby *et al.* (2000) building on Morriss *et al.*'s (1999) work, exposed primary care and accident and emergency staff to 6 h of face-to-face education. The content of training encompassed assessment, mental state, psychosocial problems, clinical management of suicide risk, problem solving and prevention. The teaching method consisted of written handouts, oral presentations, discussion, videotaped presentations, role play and feedback. The authors demonstrated significant improvements on knowledge, attitudes and skills of participants. While the intervention used in our study was significantly less, we still found measurable change on attitude, demonstrating that minimal education is still worthwhile.

Limitations

While the study does provide some encouraging evidence for the intervention, the uncontrolled nature of the study method should be noted. There may be other variables that are associated with the reported results that are unknown to the researchers; for example, non-respondents may have had poorer attitudes and chose not to complete the question or *vice versa*, and respondents may have also attended other education in their careers that were less or more influential. Recency effects of the training may have contributed to the positive results in the study. Longer-term follow-up of the participants would be required to further understand this study limit.

While there is encouraging evidence that attitudes alone may drive behaviours, there was no measure of behavioural change in the study. Large-scale multi-site randomized control trials, measuring knowledge, skills and attitudes need to be established to further validate the finding from this study and that of earlier works.

Conclusions

Attendance at training on suicide risk awareness by non-mental health professionals is further supported by our study. It is likely that attitudinal benefits will accrue if all health professionals receive some level of suicide prevention education. A key approach in delivering education should be in challenging health professionals' negative attitudes towards suicide.

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