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HOW EFFECTIVE ARE SUICIDE PREVENTION EDUCATION PROGRAMS FOR NURSES?

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In this special issue of the *Shared Learning in Clinical Practice* newsletter, the authors discuss the preliminary results of a systematic review exploring the latest evidence regarding the effectiveness of suicide prevention education programs for nurses. The results were recently presented at the 42nd International Mental Health Nursing Conference[1], and the full paper is currently being considered for publication in a peer-reviewed journal.

[1] Ferguson, M., & Procter, N. (2016). 'The effectiveness of educating nurses in suicide prevention: A systematic review'. Paper presented at the 42nd International Mental Health Nursing Conference, 25-27 October, Adelaide, Australia.

Background

Suicide is a significant public health concern, with ongoing individual, social and economic costs across communities. Globally, it is estimated that in excess of 800,000 people die by suicide each year, and that for every person who dies by suicide, there are another 20 who attempt to take their lives (WHO, 2014). Rates of suicide deaths are elevated among certain groups, such as males and those of indigenous background (WHO, 2014). In response, significant effort has been devoted to understanding the multidimensional contributors to suicide. However, recent evidence suggests that predicting risk of suicide is fraught with difficulty, particularly given the relative rarity of suicide deaths and the common occurrence of risk factors, such as male gender and previous self-harm incidences, in clinical populations (Chan et al., 2016). While indicated interventions are aimed at reducing suicide among those who are most vulnerable, contemporary suicide prevention strategies also highlight the importance of educational initiatives as an important component of multi-sectorial suicide prevention responses (WHO, 2014). Multiple systematic reviews have found that education programs can make a positive contribution to suicide prevention, both for gatekeepers working across a range of settings (Isaac et al., 2009), and for specific vulnerable groups, such as indigenous people (Clifford et al., 2013) and youth (Robinson et al., 2013). These reviews indicate that education programs can contribute to favourable shifts in attendee knowledge, attitudes, skills and confidence when supporting people vulnerable to suicide, particularly in the short-term. There is also strong evidence to support the role of training general practitioners to recognise and treat depression and anxiety as a suicide prevention strategy (Van Der Feltz-Cornelis et al., 2011).

Less is known about the value of suicide-specific education programs for other health professionals, particularly nurses. This is surprising, given that together with midwives, nurses constitute more than 50% of the health workforce in many countries worldwide (WHO, 2016). Nurses are therefore at the forefront of providing health care across a diversity of settings, for a wide range of patient groups (Mills, Birks, & Hegney, 2010), and have high exposure to people vulnerable to suicide (Palmieri et al., 2008). Yet suicide prevention is often excluded from their training, and studies stress the need for more education on this topic for this professional group (Samuelsson et al., 1997; Sun 2007). The nursing profession has been responding with a growing number of education programs being implemented and evaluated. Whilst this is a positive step, the effectiveness of these programs across a range of nursing settings is yet to be determined.

Aim

The aim of this project was to systematically review the existing peer-reviewed evidence related to the effectiveness of suicide prevention education programs for nurses.

Method

We searched nine academic databases (CINAHL, Cochrane Reviews & Trials, Embase, Informit Health Collection, Joanna Briggs Institute, Medline, PsycINFO, Scopus, and Web of Science), using variations of the following terms: nursing, education, and suicide. Additional articles were located by hand-searching the reference lists of selected articles. To be eligible for inclusion in our review, studies needed to be peer-reviewed journal articles evaluating the effectiveness of a suicide prevention training intervention on nurse participants. Results were not excluded on the basis of date of publication, study design, or outcome measures.

Results

A total of 5452 articles were identified, with 11 meeting the criteria for inclusion in this review. Studies were primarily quantitative (RCTs n=3; quasi-experimental n=6; qualitative n=2), and involved nurses (range n= 16-561) working in a diversity of settings, particularly hospitals (n=9). Educational interventions varied, ranging from 1.5 to 21 hours in duration. Primary outcome measures also varied between studies. A summary of key features of the included studies is shown in Table 1.

Table 1. Methodological details of studies (n=11) included in the review

Study/Design	Setting/Country	Participants	Intervention details
De Beurs et al. (2015) Multi-centre cluster RCT	Psychiatric departments (The Netherlands)	N=303 mental health professionals (57% nurses; 68% F; mean age: 42.5yr)	*Content:* Practice guidelines for assessment and treatment *Duration:* 1 day *Delivered by:* peers *Learning principles:* Adult learning, diffusion of innovation, blended learning
Tsai et al. (2011) RCT	General hospital (Taiwan)	N=195 nurses (98% F; age: >50% 20-30yr)	*Content:* depression, suicide, risk, warning signs, attitude change *Duration:* 1.5hr *Delivered by:* NR *Learning principles:* NR
Wu et al. (2014) RCT	General hospital (Taiwan)	N=111 nurses (100% F; mean age: 29yr)	*Content:* risk identification, prevention, assessment *Duration:* 7hrs (2x sessions) *Delivered by:* NR *Learning principles:* Adult learning & education theory
Botega et al. (2007) Quasi-experimental	General hospital (Brazil)	N=317 clinical & surgical nurses (90% F; mean age 38yr)	*Content:* Stigma, mental illness, the concept of 'psychache', interview skills, assessment and management *Duration:* 6hrs (2x sessions) *Delivered by:* Psychiatrists *Learning principles:* NR
Bullock et al. (2002) Quasi-experimental	Schools (USA)	N=561 school nurses (gender & age = NR)	*Content:* NR *Duration:* NR *Delivered by:* Local health dept. & university *Learning principles:* NR
Chan et al. (2009) Quasi-experimental	General hospitals (China)	N=54 medical and surgical nurses (89% F; 52% aged 31-40yr)	*Content:* Risk and protective factors, risk assessment, responding, resources *Duration:* 18hrs *Delivered by:* NR *Learning principles:* Reflective learning
Giordano & Stichler (2009) Quasi-experimental	ED (USA)	N=118 nurses (gender & age = NR)	*Content:* Risk factors, intervention, discharge *Duration:* NR *Delivered by:* NR *Learning principles:* Disciplined Clinical Inquiry conceptual framework
Kishi et al. (2014) Quasi-experimental	ED (Japan)	N=52 nurses (gender & age = NR)	*Content:* Risk assessment, crisis management, referral, attitude change *Duration:* 7hrs *Delivered by:* NR *Learning principles:* NR
Santos et al. (2014) Quasi-experimental	Primary health care (school teams) (Portugal)	N=66 primary health care professionals (85% nurses; 92% F; Mean age: 42yr)	*Content:* Adolescence, depression, suicidal behavior *Duration:* 21hrs *Delivered by:* Mental health & psychiatry specialists *Learning principles:* NR
Chan et al. (2008) Qualitative	General hospitals (China)	N=42 medical and surgical nurses (74% F; 45% aged 31-40yr)	*Content:* Risk and protective factors, risk assessment, responding, resources *Duration:* 18hr *Delivered by:* NR *Learning principles:* Reflective learning
Tallaksen et al. (2013) Qualitative	Primary health care (adolescent teams) (Norway)	N=16 primary health professionals (94% nurses; 100% F; age = NR)	*Content:* ASIST – attitudes, knowledge, intervention and network *Duration:* NR *Delivered by:* NR *Learning principles:* NR

Note: RCT = randomised controlled trial; F = Female; NR = Not reported

Competence

Ten studies reported on impacts of training on participant competence. Positive changes in perceived competence in working with people at risk of suicide were found in five quasi-experimental studies (Botega et al., 2007; Bullock, Libbus, Lewis, & Gayer, 2002; Chan et al., 2009; Kishi et al., 2014; Santos, Simões, de Azevedo Erse, Façanha, & Marques, 2014). It should be noted that some of these changes were only measured briefly, such as with one item (Kishi et al., 2014), or with unidentified outcome measures (Bullock et al., 2002), and were not maintained at follow-up (Chan et al., 2009). Despite this, qualitative data supports improved competence associated with training. In Chan et al.'s (2008) focus groups, medical and surgical nurses reported greater perceived competence with aspects such as communication, assessment and documentation. Similarly, Tallaksen et al.'s (2013) focus groups of primary health nurses revealed greater

perceived competence with certain aspects of their work since training, such as communication and their ability to engage in emotionally challenging dialogues, which they reported previously avoiding. Positive changes in actual competence were also observed in two RCTs, particularly with regards to accurately identifying risk factors for suicide (Wu et al., 2014) and encouraging help-seeking (Tsai, Lin, Chang, Yu, & Chou, 2011). Other findings were mixed. In De Beurs et al.'s (2015) multi-centre RCT, intervention participants more accurately selected appropriate responses to suicide in video cases, indicating greater adherence to suicide guidelines. However, the same study found no change in appropriate responding when using the Suicide Intervention Response Inventory-2.

Knowledge about suicide

Six studies reported on the impacts of educational interventions on participant knowledge. Improvements were found with regards to specific types of knowledge in three quasi-experimental studies: rates of mental illness among suicide deaths, maintained at 6-month follow-up (Botega et al., 2007); suicide risk factors, immediately post-training (Giordano & Stichler, 2009); and perceived knowledge of suicide prevention, again immediately post-training (Santos et al., 2014). These results are supported by two RCTs. Tsai et al. (2011) found improvements in knowledge of verbal, behavioural and emotional warning signs among intervention participants relative to control participants. Further, in De Beurs et al.'s (2015) multi-centre RCT, the intervention group's score on perceived knowledge of suicidal behaviour was higher at three-month follow-up compared to the control group. In contrast, while Chan et al. (2009) found improvements in medical and surgical nurses' knowledge immediately after training, these were not maintained at three-month follow-up in their quasi-experimental study.

Attitudes towards suicide/patients

Five studies measured participant attitudes towards various dimensions of suicide. In their quasi-experimental studies, Botega et al. (2007) and Santos et al. (2014) both employed slightly different versions of the Suicide Behaviour Attitude Questionnaire, and report positive shifts in sub-scales assessing 'attitudes towards patients' after their respective interventions. This was maintained at 6-month follow-up in Botega et al.'s (2007) study. However, neither study found changes in the 'right to die' sub-scale. Similarly, in their quasi-experimental study, Kishi et al. (2014) found positive changes in attitudes towards suicidal patients at one-month post-training. Chan et al. (2009) found positive changes in response to the Suicide Opinion Questionnaire overall score, as well as on the 'social disintegration' and 'personal defect' sub-scales, which were maintained 6-months post-intervention. No RCTs reported on this outcome measure, however in Chan et al.'s (2008) qualitative study, participants discussed the importance of training for shifting attitudes towards suicide – in particular, through clarifying myths about suicide, participants reported increased awareness of the issue and an openness to further learning and the need to provide holistic care.

Confidence in responding to suicide

Two studies reported on impacts of suicide prevention training on clinician confidence. In De Beurs et al.'s (2015) multi-centre RCT of training with an additional e-learning module, the intervention group demonstrated improvements in self-reported confidence in their ability to work with individuals at risk of suicide. Although maintained three-months post-training, this was only measured via two self-report items ('I am confident in my ability to successfully assess suicidal patients' and 'I am confident in my ability to successfully treat suicidal patients'). Further, improvement in self-confidence was a main theme in Chan et al.'s (2008) qualitative investigation, with participants discussing positive shifts in confidence with regards to communicating with others, managing suicidal individuals and offering support.

Clinician well-being

Two studies included measures of participant well-being. In their quasi-experimental study, Chan et al. (2009) found no change in participants' self-reported scores on the Stress and Coping Scale. Similarly, in Wu et al.'s (2014) RCT, participants completed the Brief Symptom Rating Scale to investigate general

mental health of participants, with findings indicating no impact of the intervention on this outcome, either within or between groups. No qualitative studies reported on this outcome.

Program evaluation

Only one study appears to have included training program evaluation as a primary outcome measure. In a series of qualitative focus groups with a subset of participants (n = 24), Chan et al. (2008) explored nurses' evaluations of their experiences with an 18-hour training program. Three key themes were identified: 1) positive feedback, indicating that the program met participants expectations; 2) helpful parts of the program, such as case scenarios, risk factors, myths and facts, and additional resources, as well as increased awareness of the needs of patients and their families; and 3) improvements needed, particularly with regard to participants wanting more time for the training and for it to be included as continuous learning, as well as additional topics for inclusion, such as referral, communication, care of potentially dangerous articles, and handling aggression.

Discussion

This systematic review has provided emerging evidence for the effectiveness of suicide prevention education interventions to be associated with improvements in nurses' competence, knowledge, and attitudes, *particularly in the short-term*. These findings are primarily generalizable to female nurses, working in general in-patient settings, across a range of countries. Less is known about nurses working in other settings, such as community and mental health-specific services, and across the lifespan, although some evidence is available for nurses working with young people. Further, the heterogeneity of intervention details limited the ability to draw conclusions regarding which training elements contribute to effectiveness. Additional research is crucial to fully realise the potential of this approach. In particular, future research should prioritise a focus on changes in clinical practice, over the longer-term, with more rigorous study designs.

Implications for the nursing workforce

In order to ensure that brief educational interventions are effective in the longer-term, there must be investments in work environments to help maintain post-training support and professional development. This means building upon information from training sessions, such as through brief training updates and opportunities for further learning, as well as empowering existing workforce capabilities. Suicide prevention training should also be tailored to take specific account of content quantity, quality and relevance to the workforce to meet local and national mental health- and suicide prevention-related needs. Workforce initiatives may be supported by in-situ clinical supervision, practice development education and mentoring, as well as taking steps to ensure appropriate skills and strategies for establishing supportive practice environments.

Suicide mitigation training for South Australia mental health professionals

A professional development opportunity currently exists, with SA Health leading the delivery of *Connecting with People* training in South Australia. *Connecting with People* is an internationally recognised, evidence-based suicide and self-harm mitigation and prevention training program for clinical staff. Developed in the UK in 2010, the philosophy underlying *Connecting with People* is that suicide is preventable with the appropriate tools, knowledge and confidence levels. The *Connecting with People* approach aims to ensure that clinicians acquire the attitudes, knowledge, skills, competence and confidence required to deliver high quality health care to people at risk of suicide. The *Connecting with People* philosophy places compassion, empathy and collaboration at the heart of every encounter with a person at risk of suicide. The program provides training in the use of a suite of compassionate, person-centred clinical tools, and offers a standardised language to describe the nature and intent of suicidal thoughts, enabling greater clarity, accuracy and consistency to practice by clinicians. More information about the program, as well as associated publications, can be found on the Connecting with People website. Contact healthocp@sa.gov.au for further details and information on training in your area.

References

Botega, N. J., Silva, S. V., Reginato, D. G., Rapeli, C. B., Cais, C. F., Mauro, M. L., … Cecconi, J. P. (2007). Maintained attitudinal changes in nursing personnel after a brief training on suicide prevention. *Suicide & Life-Threatening Behavior, 37*, 145-153.

Bullock, L. F., Libbus, M. K., Lewis, S., & Gayer, D. (2002). Continuing education: Improving perceived competence in school nurses. *Journal of School Nursing, 18*, 360-363.

Chan, M. K., Bhatti, H., Meader, N., Stockton, S., Evans, J., O'connor, R., … Kendall, T. (2016). Predicting Suicide following self-harm: A systematic review of risk factors and risk scales. *British Journal of Psychiatry*, doi:10.1192/bjp.bp.115.170050.

Chan, S. W., Chien, W. T., & Tso, S. (2008). The qualitative evaluation of a suicide prevention and management programme by general nurses. *Journal of Clinical Nursing, 17*, 2884-2894.

Chan, S. W., Chien, W. T., & Tso, S. (2009). Evaluating nurses' knowledge, attitude and competency after An education programme on suicide prevention. *Nurse Education Today, 29*(7), 763-769.

Clifford, A. C., Doran, C. M., & Tsey, K. (2013). A systematic review of suicide prevention interventions Targeting indigenous peoples in Australia, United States, Canada and New Zealand. *BMC public Health*, *13*, 1.

De Beurs, D. P., Groot, M. H., Keijser, J., Mokkenstorm, J., Duijn, E., Winter, R. F. P., & Kerkhof, A. J. (2015). The effect of an e-learning supported Train-the-Trainer programme on implementation of suicide guidelines in mental health care. *Journal of Affective Disorders, 175*, 446-453.

Giordano, R., & Stichler, J. F. (2009). Improving suicide risk assessment in the emergency department. *Journal of Emergency Nursing, 35*, 22-26.

Isaac, M., Elias, B., Katz, L. Y., Belik, S. L., Deane, F. P., Enns, M. W., ... The Swampy Cree Suicide Prevention Team (12 memners). (2009). Gatekeeper training as a preventative intervention for suicide: A systematic review. *The Canadian Journal of Psychiatry*, *54*, 260-268.

Kishi, Y., Otsuka, K., Akiyama, K., Yamada, T., Sakamoto, Y., Yanagisawa, Y., … Thurber, S. (2014). Effects of a training workshop on suicide prevention among emergency room nurses. *Crisis, 35*, 357-361.

Mills, J., Birks, M., & Hegney, D. (2010). The status of rural nursing in Australia: 12 years on. *Collegian*, *17,* 30-37.

Palmieri, G., Forghieri, M., Ferrari, S., Pingani, L., Coppola, P., Colombini, N., … Neimeyer, R. A. (2008). Suicide intervention skills in health professionals: A multidisciplinary comparison. *Archives of Suicide Research*, *12*, 232-237.

Robinson, J., Cox, G., Malone, A., Williamson, M., Baldwin, G., Fletcher, K., & O'Brien, M. (2013). A systematic review of school-based interventions aimed at preventing, treating, and responding to suicide-related behavior in young people. *Crisis, 34i, 164-182.*

Samuelsson, M., Åsberg, M., & Gustavsson, J. P. (1997). Attitudes of psychiatric nursing personnel towards Patients who have attempted suicide. *Acta Psychiatrica Scandinavica*, *95*, 222-230.

Santos, J. C., Simões, R. M. P., De Azevedo Erse, M. P. Q., Façanha, J. D. N., & Marques, L. A. F. A. (2014). Impact of "+contigo" training on the knowledge and attitudes of health care professionals about suicide. *Revista Latino-Americana de Enfermagem, 22*, 679-684.

Sun, F. K., Long, A., & Boore, J. (2007). The attitudes of casualty nurses in Taiwan to patients who have Attempted suicide. *Journal of Clinical Nursing*, *16*, 255-263.

Tallaksen, D. W., Bråten, K., Tveite, S., & Polit. (2013). "...You are not particularly helpful as a helper when you are helpless". *Nordic Journal of Nursing Research & Clinical Studies / Vård i Norden, 33*, 46-50.

Tsai, W.-P., Lin, L. Y., Chang, H. C., Yu, L. S., & Chou, M. C. (2011). The effects of the Gatekeeper Suicide Awareness Program for nursing personnel. *Perspectives in Psychiatric Care, 47*, 117-125.

Van Der Feltz-Cornelis, C. M., Sarchiapone, M., Postuvan, V., Volker, D., Roskar, S., Grum, A. T., … Hegerl, U. (2011). Best practice elements of multilevel suicide prevention strategies. *Crisis*, *32,* 219-333.

World Health Organization (WHO). (2014). *Preventing suicide: A global imperative*. Geneva, Switzerland: WHO.

WHO. (2016). *Global strategic directions for strengthening nursing and midwifery 2016-2020*. Geneva, Switzerland: WHO.

Wu, C. Y., Lin, Y. Y., Yeh, M. C., Huang, L. H., Chen, S. J., Liao, S. C., & Lee, M.B. (2014). Effectiveness of interactive discussion group in suicide risk assessment among general nurses in Taiwan: A randomized controlled trial. *Nurse Education Today, 34*, 1388-1394.

The Shared Learning in Clinical Practice Philosophy

Shared Learning in Clinical Practice is a policy relevant and service delivery focussed collaboration to promote best practice in mental health and develop professional skills. The strategic purpose of the initiative is to demonstrate through research and practical example, how much consumers, clinicians, policy makers and academic faculty can achieve working together. Deep discussion, deep connectivity and diffusion of the insights are central to its philosophy. Multidisciplinary in composition, the aim of each publication, podcast, film, social media communication and symposium is to capture and spread new ideas and know-how in mental health practice and challenge traditional ways of thinking.

Further information is available from:

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