APPENDIX 15B: CLINICAL STUDY CHARACTERISTICS: TRAINING

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1.1 CHARACTERISTICS OF INCLUDED STUDIES

APPLEBY2000

Bibliographic reference	Appleby, L., Morriss, R., Gask, M., *et al.* (2000) An educational intervention for front-line health professionals in the assessment and management of suicidal patients (The STORM Project). *Psychological Medicine*, *30*, 805–812.
Study design	Pre- and post-test evaluation (non-RCT)
Participants	N = 167 health care professionals (including primary care staff [n = 95], A&E staff [n = 21] and mental health staff [n = 51])
Setting of training	South Lancashire Three health care settings: primary care, A&E and mental health
Outcomes (self-report, observational)	Rates of attendance Videotaped interviews assessed the impact on skills Confidence, attitudes and satisfaction were self-reported
Programme details (components, trainer, length and frequency, follow-up)	Training covered four modules: assessment, crisis management, problem-solving and crisis intervention. Teaching methods included lectures, group discussion, modelling, roleplay and video feedback. Training was broken into 2-hour sessions (total training time was 6 hours for primary care and A&E staff, and 8 hours for mental health staff). All training was delivered in a period of approximately 6 months.
Results (quantitative/ qualitative and major findings)	A volunteer sample of 28 staff who underwent training showed improvements in skills in the assessment and management of suicide risk Satisfaction with training was high

BERLIM2007

Bibliographic reference	Berlim, M. T., Perizzolo, J., Lejderman, F., *et al.* (2007) Does a brief training on suicide prevention among general hospital personnel impact their baseline attitudes towards suicidal behaviour? *Journal of Affective Disorders*, *100*, 233–239.
Study design	Pre- and post-test evaluation (non-RCT)
Participants	N = 142 (clinical, such as nursing attendants [n =102]; non-clinical, such as administrative/security staff [n = 40]) employed in a university hospital Female: 85% Age: mean 39 years (SD 8 years) Volunteer sample
Setting of training	Southern Brazil Large university hospital
Outcomes (self-report, observational)	SBAQ used to measure beliefs and attitudes towards suicidal subjects (self-administered instrument comprising 21 attitude statements followed by visual analogue scales). SBAQ contains one question regarding the presumed percentage of suicidal subjects suffering from a mental disorder.
Programme details (components,	Suicide prevention programme emphasising the acquisition of knowledge on suicidal behaviour (such as aetiology, epidemiology, risk factors, basic assessment

trainer, length and frequency, follow-up)	and management, principals of referral). Included oral presentations and discussion with audience. Delivered by junior psychiatrists under supervision of a senior psychiatrist. 3-hour class (one session). No follow-up.
Results (quantitative/ qualitative and major findings)	Quantitative No significant differences for the majority of SBAQ items between clinical and non-clinical staff both pre- and post-training. However, their attitudes and beliefs towards suicidality were significantly improved after training in the majority of SBAQ items Underestimation by clinical and non-clinical participants of the association between suicidal behaviour and mental disorders

BOTEGA2007

Bibliographic reference	Botega, N., Silva, S., Reginato, D., *et al.* (2007) Maintained attitudinal changes in nursing personnel after a brief training on suicide prevention. *Suicide and Life Threatening Behaviour*, *37*, 145–153.
Study design	Pre- and post-training evaluation
Participants	N = 317 nursing personnel, none of whom had mental health training 80.4% completed 6-month follow-up Age and gender: no information
Setting of training	Brazil General hospital
Outcomes (self-report, observational)	SBAQ: made up of 21 clinical situations regularly experienced by staff. It measures attitudes in cognitive, affective and behavioural components within three subscales: feelings towards patients, professional capacity to manage situations involving suicidal behaviour and opinions regarding right to suicideThe training programme focused on the impact and stigma of suicide behaviour; common mental disorders associated with suicide; the concept of *psychache*; basic interview skills; and how to assess and manage a suicidal patient Trainers were three senior psychiatrists 6-hour training sessions, delivered in two weekly training sessions Assessment took place before training and follow-up was at 3 and 6 months
Programme details (components, trainer, length and frequency, follow-up)	The training programme focused on the impact and stigma of suicide behaviour; common mental disorders associated with suicide; the concept of *psychache*; basic interview skills; and how to assess and manage a suicidal patient. Trainers were three senior psychiatrists. 6-hour training sessions, delivered in two weekly training sessions. Assessment took place before training and follow-up was at 3 and 6 months.
Results (quantitative/ qualitative and major findings)	Quantitative Improvements in attitudes for the feelings and professional capacity subscales were statistically significant and maintained over 3- and 6-month follow-up. There was no change in attitudes for the right to suicide subscale

CHAN2009

Bibliographic reference	Chan, S. W., Chien, W. & Tso, S. (2009) Evaluating nurses' knowledge, attitude and competency after an education programme on suicide prevention. *Nurse Education Today*, *29*, 763–769.
Study design	Mixed method. Pre- and post-training evaluation and focus group interviews
Participants	**Quantitative**: N = 54 convenience sample of registered nurses recruited from medical and surgical units of two regional general hospitals Female: 88.9% 74% medical unit 26% surgical unit **Qualitative**: participants were categorised as those with significant positive changes between their pre- and post-test measures of knowledge and/or attitude, those without significant changes, and those with negative changes. Six participants from each category were randomly selected to participate in focus group interviews. 72% of participants were female, with an equal number of participants from medical and surgical units. Nurses who had never encountered a suicide attempt were excluded.
Setting of training	Hong Kong Two general regional hospitals
Outcomes (self-report, observational)	**Quantitative measures***:* Suicide Opinion Questionnaire, 52-item test that measures suicide attitude based on acceptability, perceived factual knowledge, social disintegration, personal defects and emotional perturbation. Knowledge test, 12 multiple choice questions on suicide prevention. Competency checklist: assessed participants' suicide prevention skills. Stress and coping scale: measures stress levels and coping strategies of people caring for patients at risk of suicide. **Qualitative measure**: focus group interviews conducted 6 months after the programme (three focus groups with six participants in each group).
Programme details (components, trainer, length and frequency, follow-up)	Suicide prevention programme that included facts and myths around suicide, risk and protective factors, assessment of risk, prevention in general hospitals, and sources of support for patients and families. Training methods included reflective discussion, role play, critical incident analysis, case discussion, lectures and self-directed study. 18 hours of education programme. Approximately ten participants in each class. 100% attendance rate. Quantitative follow-up: immediately (post-test 1) and at 3 and 6 months (post-test 2 and post-test 3, respectively). Qualitative follow-up: 6 months following training.
Results (quantitative/ qualitative and major findings)	**Quantitative:** significant differences between pre- and post-test in the competency checklist and the total Suicide Opinion Questionnaire score, as well and the social disintegration and personal defects subscales. Significant differences between pre- and post-test 1 in terms of knowledge. **Qualitative**: participants described an attitude change, increased awareness, increased confidence and the feeling of being more competent in dealing with suicide since completing the training.

CRAWFORD1998

Bibliographic reference	Crawford, M. J., Turnbull, G. & Wessely, S. (1998) Deliberate self harm assessment by accident and emergency staff – an intervention. *Journal of Emergency Medicine*, *15*, 18–22.
Study design	Pre- and post-training evaluation (non-RCT)
Participants	44 nurses and junior medical staff from an A&E department
Setting of training	King's College Hospital, London Teaching hospital
Outcomes (self-report, observational)	**Quantitative**: Quality of psychosocial assessment conducted by staff, assessed in terms level of completeness Questionnaire about participants' experience of, knowledge of and attitudes towards self-harm
Programme details (components, trainer, length and frequency, follow-up)	Training covered basic information on the epidemiology of self-harm, assessment, the potential difficulties with assessment and how to manage these, identification of risk, aspects of initial management, and the service provided by the parasuicide team. Delivered by primary author and nurse from the parasuicide team. 1-hour training session. Follow-up: 1 month following intervention.
Results (quantitative/ qualitative and major findings)	There was improvement in the quality of psychosocial assessment, as demonstrated through a significant increase in the proportion of notes judged to be adequately completed, the SAD PERSONS proforma being utilised more frequently post-intervention and the significant increase in the amount of information sheets sent to the parasuicide team. There was significant improvement in the knowledge and attitudes of staff on two out of 12 measures: decreased belief that patients who have a past history of self-harm are less likely to kill themselves compared with those who only try once; and an increased amount of participants who felt they had the necessary skills to play their part in assessment and treatment of self-harm.

GASK2006

Bibliographic reference	Gask, L., Dixon, C., Morriss, R., *et al.* (2006) Evaluating STORM skills training for managing people at risk of suicide. *Journal of Advanced Nursing*, *54*, 739–750.
Study design	Pre- and post-training evaluation Non-RCT
Participants	458 staff members including qualified nurses, nursing assistants, doctors, occupational therapists, support workers, nursing students, support staff, a clinical psychologist and an art therapist. From the main group, 16 participants took part in semi-structured interviews.
Setting of training	North-West of England Three mental health services
Outcomes (self-report, observational)	**Quantitative**: Attitudes to Suicide Prevention Scale Confidence in assessment and management of suicidal patients **Qualitative**: semi-structured interviews to explore impact on clinical practice

Programme details (components, trainer, length and frequency, follow-up)	Training covered four modules: assessment, crisis management, problem-solving and crisis intervention Teaching methods include lectures, group discussion, modelling, role-play and video feedback Length of training was flexible, but typically lasts 1 to 2 days Training delivered by three mental health nurses Follow-up: immediately after the training, then at 4 to 6 months
Results (quantitative/ qualitative and major findings)	There was statistically significant improvement in attitudes on ten out of 14 items, immediately after the training. This improvement was maintained on seven items, at 4-month follow-up. There were statistically significant improvements in confidence immediately after the training and at 4-month follow-up.

GASK2008

Bibliographic reference	Gask, L., Lever-Green, G. & Hays, R. (2008) Dissemination and implementation of suicide prevention training in one Scottish region. *BMC Health Services Research*, *8*, 1–13.
Study design	Pre- and post-training evaluation. Non-RCT
Participants	203 health care professionals and service users including qualified nurses, managers, nursing students, support staff and clinical psychologists.
Setting of training	Highland region, Scotland Mental health services
Outcomes (self-report, observational)	**Quantitative**: Attitudes to Suicide Prevention Scale Confidence in assessment and management of suicidal patients **Qualitative**: Semi-structured interviews to explore impact on clinical practice
Programme details (components, trainer, length and frequency, follow-up)	Training covered four modules: assessment, crisis management, problem-solving and crisis intervention Teaching methods include lectures, group discussion, modelling, role-play and video feedback Length of training was flexible, but typically lasts 1 to 2 days Training delivered by 12 trained facilitators Follow-up: immediately after the training, then at 6 months
Results (quantitative/ qualitative and major findings)	There was statistically significant improvement in attitudes on ten out of 14 items, immediately after the training. This improvement was maintained on four items, at 6-month follow-up. There were statistically significant improvements in confidence immediately after the training and at 6-month follow-up.

HOLDSWORTH2001

Bibliographic reference	Holdsworth, N., Belshaw, D. & Murray, S. (2001) Developing A&E nursing responses to people who deliberately self-harm: the provision and evaluation of a series of reflective workshops. *Journal of Psychiatric Mental Health Nursing*, *8*, 449–458.
Study design	Pre- and post-training feedback and evaluation

Participants	13 nurses (one dropout) from four A&E departments: two minor injuries units and two medical admission units No other demographic information was reported for these participants
Setting of training	UK A&E: medical admission units and minor injuries units
Outcomes (self-report, observational)	**Quantitative**: self-report, post-course evaluation sheet focussing on staff's knowledge and skill acquisition following the course. Questionnaire based on the stress-coping-strain model of psychological functioning (Cohen & Lazarus, 1979). Elicited information about stressors/demands on staff made by self-harming patients, staff coping responses and the consequent strain felt; quantified as irritation, anxiety or hopelessness. This was administered 2 weeks prior to the first workshop and following the final one.
Programme details (components, trainer, length and frequency, follow-up)	Five half-day workshops covered assessment of suicide risk; responding to deliberate self-harm; risk-assessment instruments and documentation; reflection on issues that staff face, relating to suicide and deliberate self-harm; and helpfulness and helplessness, with a focus on locus of control. Follow-up was after the final training session. No information about the trainer was included. Self-harm defined as with and without intent to die.
Results (quantitative/ qualitative and major findings)	Increases in knowledge from the workshop related to: the relationship of completed suicide to antecedent non-fatal deliberate self-harm; the association between repeated deliberate self-harm and poor problem-solving skills; and an understanding of why some who deliberately self-harm present to A&E but then refuse physical treatment for their wounds. Workshop participants also reported decreased demand upon their professional skills (that is, assessment is easier) and reduced anxiety, irritability and helplessness when faced with self-harm (i.e. professional distress is reduced).

MAY2001

Bibliographic reference	May, V. (2001) Attitudes to patients who present with suicidal behaviour. *Emergency Nurse, 9,* 26–32.
Study design	Pre- and post-test control group design
Participants	111 participants from an A&E setting (two sites). Control group (n = 55), experimental group (n = 56) Medics (n = 22), nurses (n = 63) and clerical staff (n = 26) Dropout rate 54%. Control group dropout 68%, experimental group dropout 42%
Setting of training	UK A&E
Outcomes (self-report, observational)	**Quantitative** Suicide Opinion Questionnaire, a 16-item Likert scale that measures attitudes to suicide
Programme details (components, trainer, length and frequency, follow-	An information pack was distributed to the participants in the experimental condition. Following this, a series of three notice board displays were put up weekly and in the final week the whole set was displayed. No information was given about the contents of the displays or the information pack.

up)	No information was given about length of follow-up. Self-harm defined as with and without intent to die.
Results (quantitative/ qualitative and major findings)	No significant difference in overall attitudes between groups

MCALLISTER2009

Bibliographic reference	McAllister, M., Moyle, W., Billet, S., *et al.* (2009) 'I can actually talk to them now': qualitative results of an educational intervention for emergency nurses caring for clients who self-injure. *Journal of Clinical Nursing*, *18*, 2838–2845.
Study design	Mixed method pre- and post-training evaluation. (*Note.* The results were not reported for the comparison group, who received no training.)
Participants	36 emergency nurses. Participants self-selected to participate. Demographic information was included for 29 of the participants. Of this group, 20 of them were in the intervention condition. Mean age 32 years; 70% female; employed in an emergency setting for a mean of 4.5 years. For the other seven participants, it is unclear whether they didn't provide the demographic information or whether they dropped out of the study completely. If they remained involved it is unclear whether they were in the intervention or control group.
Setting of training	Australia Two major departments of emergency medicine
Outcomes (self-report, observational)	Qualitative measure Interview Quantitative measures. (*Note.* these were not reported.) Think-aloud tests Professional Self-Concept in Nursing Inventory Perceptions of Nursing Scale
Programme details (components, trainer, length and frequency, follow-up)	Teaching methods include 2 hours of interactive discussion on the nature of self-harm, theories for understanding it and evidence-based treatment techniques, followed by 1 hour of training in solution-focused nursing. Follow-up took place 2 weeks after the training was completed. No information about the trainer was given. No information was given about how self-harm is defined.
Results (quantitative/ qualitative and major findings)	Results showed improvements in knowledge and understanding of self-harm, self-belief in nurses' capacity to positively influence clients and the value of health promotion skills. The intervention produced a positive attitudinal shift towards clients and an expressed intention to act in ways that were more person-centred and change oriented.

MORRISS1999

Bibliographic reference	Morriss, R., Gask, L., Battersby, L., *et al.* (1999) Teaching front-line health and voluntary workers to assess and manage suicidal patients. *Journal of Affective Disorders*, *52*, 77–83.
Study design	Controlled pre- and post-training evaluation
Participants	33 health, social services and voluntary staff (non-psychiatrically trained)

Setting of training	Setting not reported but participants were recruited through their place of contact with suicidal patients; primary care, emergency hospital room, social services and voluntary agencies
Outcomes (self-report, observational)	Training to assess suicide risk and manage suicidal patients (referral to psychiatric staff)
Programme details (components, trainer, length and frequency, follow-up)	Eight hours (four 2-hour weekly) interview skills training: roleplay with modelling and video feedback.. Content of training: assessment, crisis management and prevention, problem solving). Blind assessment by raters. 1 month follow-up. Used self-rated questionnaire, SIRI-2 and visual analogue scales to assess clinical skills and confidence.
Results (quantitative/ qualitative and major findings)	Suicide response performance, confidence, suicide risk assessment and management skills (problem solving, future coping and provision of immediate support) were significantly improved after training. No improvement in general interview skills dealing with hopelessness or removal of lethal weapons.

PATTERSON2007

Bibliographic reference	Patterson, P., Whittington, R. & Bogg, J. (2007) Testing the effectiveness of an educational intervention aimed at changing attitudes to self-harm. *Journal of Psychiatric and Mental Health Nursing*, *14*, 100–105.
Study design	Mixed factorial design – Pre- and post-training evaluation and between-group comparison
Participants	91 participants: 69 attended the 'Understanding and managing self harm and suicide' course and 22 attended a research methods course (unrelated to self-harm). All participants were healthcare professionals. The majority were mental health nurses and 40% of the intervention group worked in inpatient mental health. Age: mean 38 years.
Setting of training	UK No other setting information was provided
Outcomes (self-report, observational)	**Quantitative**: Self-Harm Antipathy Scale: a 30-item scale that measures participants' views on their attitude towards self-harm patients who they do not perceive as intending suicide.
Programme details (components, trainer, length and frequency, follow-up)	Course content included: explanations and causes of self harm and suicide; range, forms and functions of the behaviour; exploring the possibilities for prevention; effects of and responses to the behaviour; assessment methods and processes; interventions and management of care; and professional practice issues. Training took 78 hours to complete, over 12 study days. Assessment took place immediately prior to the start of the course and follow-up took place on the last day of the course and between 18 and 48 months following completion of the training. The first author was the key facilitator, but other facilitators were also involved. Self-harm defined as 'deliberate self-harm' without intent to die.
Results (quantitative/ qualitative and	Antipathy in the intervention group was significantly lower at the end of the intervention that at the start. The comparison group had significantly higher

major findings)	antipathy at follow-up than the intervention group.

PFAFF2001

Bibliographic reference	Pfaff, J. J., Acres, J. G. & McKelvey, R. S. (2001) Training general practitioners to recognise and respond to psychological distress and suicidal ideation in young people. *The Medical Journal of Australia*, *174*, 222–226.
Study design	Pre- and post-training evaluation
Participants	GPs: n = 23 Patients: n = 423
Setting of training	Australia GP surgeries
Outcomes (self-report, observational)	General Health Questionnaire-12 (GHQ-12) Center for Epidemiological Studies Depression Scale (CES-D) Depressive Symptom Inventory – Suicidality Subscale (DSI-SS)
Programme details (components, trainer, length and frequency, follow-up)	One-day training programme including: prevalence of youth suicide in Australia; how to identify psychological distress; encouraging disclosure; assessing risk of suicide; and management and prevention strategies.
Results (quantitative/ qualitative and major findings)	**Quantitative**: Significant increase in the proportion of patients identified as psychologically distressed and suicidal. This includes a significant reduction in false negative cases. No significant differences in the type of management recommended by GPs.

SAMUELSSON2002

Bibliographic reference	Samuelsson, M. & Asberg, M. (2002) Training program in suicide prevention for psychiatric nursing personnel enhance attitudes to attempted suicide patients. *International Journal of Nursing Studies*, *39*, 115–121.
Study design	Pre- and post-training evaluation
Participants	Convenience sample of 47 psychiatric nursing personnel (24 were attendants in psychiatric care and 23 were registered nurse Female: 83% Age: 25 to 64 years
Setting of training	Stockholm, Sweden Department of Psychiatry, Karolinska University Hospital
Outcomes (self-report, observational)	Under-standing of Suicide Attempt Patients Scale: 17-item attitude scale Responses to three brief clinical vignettes based on actual case histories of patients seen at the department of psychiatry 94% completed the questionnaire
Programme details (components, trainer, length and frequency, follow-up)	A 36-hour training programme in psychiatric suicide prevention. Consisted of 12 class sessions on different aspects of attempted suicide, such as social, biological and psychodynamic aspects, psychiatric nursing, psychiatric autopsy and ethical issues. Each session began with a 2-hour lecture by an invited specialist on the topic. After each lecture, a 1-hour discussion in smaller groups (seven to eight nurses)

	took place.
Results (quantitative/ qualitative and major findings)	**Quantitative**: Understanding and willingness to care increased and suicide risk of the patients described in case vignettes was estimated more accurately.

TRELOAR2008B

Bibliographic reference	Treloar, A. J. C. & Lewis, A. J. (2008b) Targeted clinical education for staff attitudes towards deliberate self-harm in borderline personality disorder: randomized controlled trial. *Australian and New Zealand Journal of Psychiatry*, *42*, 981–988.
Study design	Pre- and post-training evaluation
Participants	99 mental health (n = 66) and emergency (n = 33) registered health service practitioners. Staff were asked to participate if, during their employment, they had worked with borderline personality disorder patients.
Setting of training	Two Australian and one New Zealand health services
Outcomes (self-report, observational)	Attitudes Towards Deliberate Self-Harm Questionnaire. The questionnaire consists of 33 items scored on a four-point Likert scale. Completed immediately before and after training.
Programme details (components, trainer, length and frequency, follow-up)	Training consisted of Microsoft PowerPoint slides, which provided information on: attitudes to borderline personality disorder, prevalence rates, definition and rates of self-harm and so on, and case studies of three patients diagnosed with borderline personality disorder. Follow-up was immediately after the training finished, before staff returned to their usual clinical practice. Training was a total of 2 hours, with 90 minutes of lecturing and 30 minutes of seminar-style teaching. The first author ran the lecture and then offered input in the seminar. No information was given about how self-harm is defined.
Results (quantitative/ qualitative and major findings)	Significant improvements in attitudes towards working with deliberate self-harm behaviours were found following attendance at the education programme. There were no significant differences across occupational areas.

TURNBULL1997

Bibliographic reference	Turnbull, G. & Chalder, T. (1997) Effects of education on attitudes to deliberate self-harm. *Psychiatric Bulletin*, *21*, 334–335.
Study design	Pre- and post-training evaluation
Participants	50 doctors and nurses from A&E and emergency wards. However, only 26 completed the post-training questionnaire
Setting of training	UK
Outcomes (self-report, observational)	General knowledge questionnaire including questions about epidemiology and main risk factors Inventory of Negative Attitudes
Programme details (components, trainer,	**Quantitative**: One-hour group teaching session over 4 weeks that focused on nature of suicide

length and frequency, follow-up)	and deliberate self-harm. No other details were given. Assessment took place prior to the teaching session and follow-up was 6 weeks after the initial lecture. The course was taught by a liaison nurse. No information was given about how self-harm is defined.
Results (quantitative/ qualitative and major findings)	After implementation of the intervention, the general knowledge of staff improved, however attitudes did not become more favourable. The number of patients who contacted the specialist service increased at follow-up.

WALKER1996

Bibliographic reference	Walker, B. L. & Osgood, N. J. (1996) Preventing suicide and depression: a training program for long-term care staff. *OMEGA – Journal of Death and Dying*, *42*, 55–69.
Study design	Pre- and post-training evaluation
Participants	43 staff members
Setting of training	Long-term care facilities for elderly individuals
Outcomes (self-report, observational)	Data collection instruments, designed specifically for the study, about knowledge, attitudes and practices
Programme details (components, trainer, length and frequency, follow-up)	Three-hour suicide training workshop that provided information on prevalence, characteristics and methods (including self-harming behaviour), risk and prevention interventions. Data collection took place.
Results (quantitative/ qualitative and major findings)	Significant differences between pre- and post-training in terms of knowledge, with significant improvements on 15 of the 24 items. Participant scores, with regards to attitudes, shifted positively in 14 out of 21 items and, with regards to practices the shifted positively on ten out of the 19 items.

1.2 CHARACTERISTICS OF EXCLUDED STUDIES

Note. All excluded studies (below) were either related to training in non-clinical populations or training in a non-clinical setting (that is, prisons). In the case of RAMBERG2003, the training was carried out in a non-UK setting.

References of excluded studies

Cross, W., Matthieu, M. M., Cerel, J., *et al.* (2007) Proximate outcomes of gatekeeper training for suicide prevention in the workplace. *Suicide & Life-threatening Behavior*, *37*, 659-670.

Isaac, M., Elias, B., Katz, L. Y., *et al.* (2009) Gatekeeper training as a preventative intervention for suicide: a systematic review. *Canadian Journal of Psychiatry, 54,* 260–268.

Ramberg, I. L. & Wasserman, D. (2003) The roles of knowledge and supervision in work with suicidal patients. *Nordic Journal of Psychiatry*, *57*, 365–371.

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

Tierney, R. (1994) Suicide intervention training evaluation: a preliminary report. *Crisis*, *15*, 69–76.

Tompkins, T. L., Witt, J., & Abraibesh, N. (2009) Does a gatekeeper suicide prevention program work in a school setting? Evaluating training outcome and moderators of effectiveness. *Suicide & Life-threatening Behavior*, *39*, 671–681.

Wyman, P. A., Brown, C. H., Inman, J., *et al.* (2008) Randomized trial of a gatekeeper program for suicide prevention: 1-year impact on secondary school staff. *Journal of Consulting and Clinical Psychology*, *76*, 104–115.