This program description was created for SAMHSA's National Registry for Evidence-based Programs and Practices (NREPP). Please note that SAMHSA has discontinued the NREPP program and these program descriptions are no longer being updated. If you are considering this program, you may wish to visit the full program listing on our website or search other sources for more up-to-date information.

Emergency Department Means Restriction Education

Emergency Department Means Restriction Education is an intervention for the adult caregivers of youth (aged 6 to 19 years) who are seen in an emergency department (ED) and determined through a mental health assessment to be at risk for committing suicide. Studies show that the presence of a gun in the household increases suicide risk, yet parents who take their adolescent to an ED for a suicide attempt are often not warned about restricting their child's access to firearms and other lethal means. ED Means Restriction Education is designed to help parents and adult caregivers of at-risk youth recognize the importance of taking immediate, new action to restrict access to firearms, alcohol, and prescription and over-the-counter drugs in the home. The intervention also gives parents and caregivers specific, practical advice on how to dispose of or lock up firearms and substances that may be used in a suicide attempt. Examples are using firearm locking devices or locked medicine cabinets, turning in firearms to local police, or moving the item to another location outside the home. By encouraging reduced access to these means, the intervention also aims to lessen the risk of violence directed at others, including homicide.

The intervention is designed to be delivered in a brief period consistent with the demands of busy EDs. The intervention consists of three components or messages that can be delivered by a trained health care professional, such as a physician, nurse, social worker, or mental health specialist. The three components are (1) informing parents, when their child is not present, that the child is at increased suicide risk and why (e.g., "Adolescents who have made a suicide attempt are at risk for another attempt"); (2) telling parents they can reduce this risk by limiting their child's access to lethal means; and (3) educating parents and problem solving with them about how to limit access to lethal means.

Descriptive Information

Areas of Interest	Mental health promotion
Outcomes	**Review Date: March 2010** 1: Access to medications that can be used in an overdose suicide attempt 2: Access to firearms
Outcome Categories	Drugs Suicide Physical aggression and violence-related behavior
Ages	6-12 (Childhood) 13-17 (Adolescent) 18-25 (Young adult)
Genders	Male Female
Races/Ethnicities	Black or African American Hispanic or Latino White
Settings	Outpatient

Geographic Locations	Urban Suburban Rural and/or frontier
Implementation History	ED Means Restriction Education was first implemented in 1994 in Illinois. The number of sites that have implemented the intervention has not been tracked.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: No Evaluated in comparative effectiveness research studies: No
Adaptations	No population- or culture-specific adaptations of the intervention were identified by the developer.

Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the developer.
IOM Prevention Categories	Selective Indicated

Quality of Research

Review Date: March 2010

Documents Reviewed

The documents below were reviewed for Quality of Research. The research point of contact can provide information regarding the studies reviewed and the availability of additional materials, including those from more recent studies that may have been conducted.

Study 1

Kruesi, M. J., Grossman, J., Pennington, J. M., Woodward, P. J., Duda, D., & Hirsch, J. G. (1999). Suicide and violence prevention: Parent education in the emergency department. Journal of the American Academy of Child Adolescent Psychiatry, 38(3), 250-255.

Wislar, J. S., Grossman, J., Kruesi, M. J., Fendrich, M., Franke, C., & Ignatowicz, N. (1998). Youth suicide-related visits in an emergency department serving rural counties: Implications for means restriction. Archives of Suicide Research, 4, 75-87.

Study 2

McManus, B. L., Kruesi, M. J., Dontes, A. E., Defazio, C. R., Piotrowski, J. T., & Woodward, P. J. (1997). Child and adolescent suicide attempts: An opportunity for emergency departments to provide injury prevention education. American Journal of Emergency Medicine, 15(3), 357-360.

Supplementary Materials

Data collection form for youth suicide-related emergency department visits

Follow-up form (for parents)

Form provided to law enforcement agencies to determine firearm turn-in/disposal policies

Kruesi, M., Grossman, J., Hirsch, J., Fendrich, M., Woodward, J., Dontes, A., et al. (1996, July). Report of the Community Action for Youth Survival Program. Final grant report submitted to Ronald McDonald House Charities. Chicago: University of Illinois at Chicago.

Outcomes

Outcome 1: Access to medications that can be used in an overdose suicide attempt	
Description of Measures	Access to prescription and over-the-counter medications that can be used in an overdose suicide attempt was assessed retrospectively in two studies by a confidential, structured telephone interview. The interviews were conducted with parents/caregivers of youth who had been assessed during an ED visit as exhibiting high-risk behavior such as suicidal or homicidal threats (in one study) or brought to a poison control center after deliberately ingesting a drug in a suicide attempt (in the other study). The parent/caretaker was asked (1) if he or she received any information regarding means restriction while at the ED; (2) if at the time of the ED visit, there were any lethal means for suicide in the home; and (3) if there were any such means present, if the parent/caretaker took any new preventive measures to limit access to these means after the ED visit. Based on parents' responses, two categories of action were defined: locking (installing a locking device or putting the means in a locked storage container) and disposal (elimination of the means or removing the means from the household). The interviews were conducted by a nurse (in one study) or by a physician (in the other study) who had reviewed the youth's medical chart.
Key Findings	In one study, parents/caregivers of youths who made an ED visit and were determined to exhibit high-risk behavior were interviewed 2 months after their ED visit. Parents/caregivers who received the intervention were significantly more likely to report limiting access to medications that can be used in an overdose suicide attempt compared with a control group of parents/caregivers who did not receive the intervention ($p < .001$). For prescription medications, among parents/caregivers who received the intervention, 42% used locking and 33% used disposal as methods to limit access, while 25% did not take any action. In comparison, among the control group, 24% of parents/caregivers used locking and 24% used disposal as methods to limit access, while 53% did not take any action ($p < .05$). For over-the-counter medications, 26% of parents/caregivers who received the intervention used locking and 22% used disposal as methods to limit access, while 52% did not take any action. In comparison, 14% of parents/caregivers in the control group used locking, 8% used disposal, and 78% did not take any action ($p < .05$). In another study, parents/caregivers of youth who had attempted suicide by

	deliberately ingesting a drug and received a mental health evaluation while at the ED were interviewed an average of 15 months after the overdose. Among parents/caregivers who received the intervention, 86% reported they had locked up or disposed of medications that can be used in an overdose suicide attempt, whereas only 32% of parents/caregivers who were not given means restriction education during the ED visit reported taking such action (p = .011).
Studies Measuring Outcome	Study 1, Study 2
Study Designs	Quasi-experimental
Quality of Research Rating	2.5 (0.0-4.0 scale)
Outcome 2: Access to firearms	
Description of Measures	Access to firearms was assessed retrospectively by a confidential, structured telephone interview. The interviews were conducted with parents/caregivers of youth who had been assessed during an ED visit as exhibiting high-risk behavior such as suicidal or homicidal threats. The parent/caretaker was asked (1) if he or she received any information regarding means restriction while at the ED; (2) if at the time of the ED visit, there were any lethal means for suicide in the home; and (3) if there were any such means present, if the parent/caretaker took any new preventive measures to limit access to these means after the ED visit. Based on the parents' responses, two categories of action were defined: locking (installing a locking device or putting the means in a locked storage container) and disposal (elimination of the means or removing the means from the household). The interviews were conducted by a nurse (in one study) or by a physician (in the other study) who had reviewed the youth's medical chart.

Key Findings	Parents/caregivers of youths who made an ED visit and were determined to exhibit high-risk behavior were interviewed 2 months after their ED visit. Parents/caregivers who received the intervention were significantly more likely to take action to limit access to firearms compared with a control group of parents/caregivers who did not receive the intervention ($p < .001$). Among parents/caregivers in the intervention group, 38% used locking and 25% used disposal as methods to limit access, while 38% did not take any action. In comparison, 100% of those in the control group took no action at all to limit access to firearms ($p < .05$).
Studies Measuring Outcome	Study 1
Study Designs	Quasi-experimental
Quality of Research Rating	2.7 (0.0-4.0 scale)

Study Populations

The following populations were identified in the studies reviewed for Quality of Research.

Study	Age	Gender	Race/Ethnicity
Study 1	13-17 (Adolescent)	51% Female 49% Male	74% White 24% Black or African American 2% Hispanic or Latino

Study 2	6-12 (Childhood) 13-17 (Adolescent) 18-25 (Young adult)	74% Female 26% Male	61% White 28% Black or African American 11% Hispanic or Latino

Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
2. Validity of measures
3. Intervention fidelity
4. Missing data and attrition
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see Quality of Research.

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating
1: Access to medications that can be used in an overdose suicide attempt	1.5	3.5	2.5	2.0	2.0	3.5	**2.5**
2: Access to firearms	2.5	3.5	2.5	2.0	2.0	3.5	**2.7**

Study Strengths

The reliability of the access to firearms measure (Outcome 2) was enhanced by use of collaborative law enforcement records, and the validity of measures was enhanced by corroboration from independent investigators. The studies accounted for missing data in their analyses, and the analyses were appropriate for the type of data collected.

Study Weaknesses

The reliability of the data related to access to medication that were collected by telephone interview is a concern given the lack of external corroboration. Although some efforts were made to track implementation (e.g., use of parental follow-up forms, checking of charts), the intervention itself was not structured or manualized, and intervention fidelity was not assessed at all in one of the studies. The attrition rate was 30% in one study, and the 70% of parents who participated in follow-up calls had a higher percentage of children with suicidal ideation than those who could not be reached or chose not to participate. Several confounding variables were not addressed, including the type of follow-up care or treatment received.

Readiness for Dissemination

Review Date: March 2010

Materials Reviewed

The materials below were reviewed for Readiness for Dissemination. The implementation point of contact can provide information regarding implementation of the intervention and the availability of additional, updated, or new materials.

Fendrich, M., Mackesy-Amiti, M. E., & Kruesi, M. (2000). A mass-distributed CD-ROM for school-based suicide prevention. Crisis, 21(3), 135-140.

Firearm disposal form

Firearm locking devices [Brochure]. (n.d.). Retrieved from http://depts.washington.edu/lokitup/images/media/firearm_locking_devices.pdf

Grossman, J., Kruesi, M. J. P., & Hirsch, J. (1996). Team up to save lives: What your school should know about preventing youth suicide [CD-ROM]. Chicago: University of Illinois at Chicago and Ronald McDonald House Charities.

Kruesi, M. J. P. (2008). Adolescent & child suicide (and homicide) prevention in the ED [PowerPoint slides].

Kruesi, M. J. P. (2008). Means restriction: Theory and practice [PowerPoint slides].

Kruesi, M. J. P. (2008). Methods of suicide/violent death [PowerPoint slides].

Kruesi, M. J. P. (2008). Suicide in children (in contrast to adolescents) [PowerPoint slides].

Kruesi, M. J. P., Grossman, J., & Hirsch, J. G. (2009). Emergency Department Means Restriction Education manual.

Quality assurance materials:

- Data collection form for youth suicide-related emergency department visits
- Follow-up form (for parents)
- Outline of quality assurance protocol

Registry of Evidence-Based Suicide Prevention Programs: Emergency Department Means Restriction Education. (2005). Retrieved from http://www.sprc.org/featured_resources/bpr/ebpp_PDF/emer_dept.pdf

Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see Readiness for Dissemination.

Implementation Materials	Training and Support Resources	Quality Assurance Procedures	Overall Rating
3.3	2.0	2.0	**2.4**

Dissemination Strengths

The manual describes key features of the program and provides helpful tips on how to carry out the model. The developer is available to answer any questions that come up during implementation. The training PowerPoint presentations contain relevant data on the problem of adolescent suicide. Several quality assurance tools are provided for implementers to adapt to local situations.

Dissemination Weaknesses

Implementation guidance is limited; the materials provided do not clearly describe the sequential process of the program. No standardized process for training practitioners is available. Although the developer is available to answer questions, it does not appear that any structured or formalized implementation support is available. Quality assurance procedures are not fully described, and information is limited on how implementers are to use the data generated from them. The quality assurance tools were developed for the research study and must be adapted before they can be used at other sites.

Costs

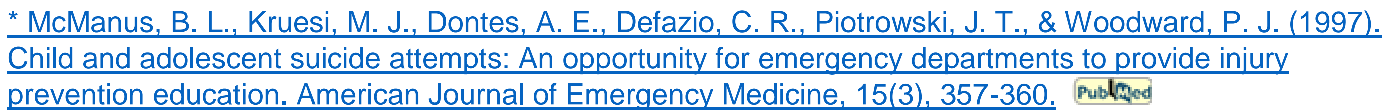
The cost information below was provided by the developer. Although this cost information may have been updated by the developer since the time of review, it may not reflect the current costs or availability of items (including newly developed or discontinued items). The implementation point of contact can provide current information and discuss implementation requirements.

Item Description	Cost	Required by Developer
Implementation materials	Included in training cost, or $50 per set if purchased separately	Yes
On-site training (includes implementation materials)	Varies depending on number of participants and sites	No
Follow-up phone calls	Included in training cost	No

Replications

Selected citations are presented below. An asterisk indicates that the document was reviewed for Quality of Research.

Kruesi, M., Grossman, J., Hirsch, J., Fendrich, M., Woodward, J., Dontes, A., et al. (1996, July). Report of the Community Action for Youth Survival Program. Final grant report submitted to Ronald McDonald House Charities. Chicago: University of Illinois at Chicago.


* McManus, B. L., Kruesi, M. J., Dontes, A. E., Defazio, C. R., Piotrowski, J. T., & Woodward, P. J. (1997). Child and adolescent suicide attempts: An opportunity for emergency departments to provide injury prevention education. American Journal of Emergency Medicine, 15(3), 357-360.

Contact Information

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