Traumatic Incident Reduction

Traumatic Incident Reduction (TIR) is a brief, memory-based, therapeutic intervention for children, adolescents, and adults who have experienced crime-related and/or interpersonal violence, war, disasters, torture, childhood abuse, neglect, emotional abuse, traumatic bereavement, or other severe or shocking events. The program is designed to resolve symptoms of posttraumatic stress disorder (PTSD), depression, anxiety, and low expectancy of success (i.e., low self-efficacy) by integrating dissociated cognitive and emotional aspects of traumatic memory.

Through sessions that usually run between 90 and 120 minutes, the practitioner facilitates the client's examination and resolution of a past trauma. Depending on the incident and the symptoms experienced by the client, resolution may be achieved in one or two sessions, or it may take repeated sessions for clients who experience residual distress related to the incident. Each TIR session begins with an assessment step, in which the client identifies the most significant item to be addressed during the session. This item can be a descriptive item, which describes a particular traumatic incident, or a thematic item, which describes a particular negative feeling, attitude, or thought; if a thematic item is selected, the negative feeling, attitude, or thought is used to identify specific incidents for resolution. This step is followed by a viewing step, in which the client examines the incident, including aspects such as the time and duration of an incident, awareness of and connectedness to each incident, and a verbal report of the incident. At the completion of the session, it is expected that the client will be able to talk calmly about the traumatic incident with a sense of autonomy and without a return of the symptoms caused by the incident.

Before administering TIR, a practitioner must complete training, which consists of a short, intensive workshop led by a certified trainer, followed by ongoing supervision. Further ongoing supervision and professional development training are highly recommended. A practitioner is not required to have an advanced degree to learn the approach.

In one study reviewed for this summary, adult participants received one 3- to 4-hour session of TIR, and in the other study, adolescent and adult participants received a total of ten 2-hour sessions, which occurred two times per week. The population of one reviewed study was composed of female participants, and the population of the other study was largely composed of female participants; however, TIR was developed for, and is used with, both female and male clients.

Descriptive Information

Areas of Interest	Mental health treatment
Outcomes	**Review Date: October 2011** 1: PTSD symptoms 2: Depression 3: Anxiety 4: Expectancy of success
Outcome Categories	Mental health
Ages	13-17 (Adolescent) 18-25 (Young adult) 26-55 (Adult) 55+ (Older adult)
Genders	Male Female
Races/Ethnicities	Black or African American Hispanic or Latino White Non-U.S. population

Settings	Outpatient Correctional
Geographic Locations	Urban
Implementation History	Traumatic Incident Reduction was first implemented in 1985. Since then, TIR has been implemented in all 50 States and in Puerto Rico. It also has been used in every Province of Canada, as well as in Argentina, Australia, Belgium, Bermuda, England, Germany, India, Ireland, Israel, Italy, Japan, Palestine, Portugal, Scotland, South Africa, Switzerland, Tobago, Trinidad, and Ukraine.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: No Evaluated in comparative effectiveness research studies: Yes
Adaptations	TIR implementation materials have been translated into Spanish, and TIR training materials have been translated into Arabic, French, German, Italian, Japanese, Portuguese, and Spanish.
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the developer.
IOM Prevention Categories	IOM prevention categories are not applicable.

Quality of Research

Review Date: October 2011

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

Valentine, P. V., & Smith, T. E. (2001). Evaluating Traumatic Incident Reduction (TIR) therapy with female inmates: A randomized controlled clinical trial. Research on Social Work Practice, 11(1), 40-52.

Study 2

Bisbey, L. B. (1995). No longer a victim: A treatment outcome study for crime victims with post-traumatic stress disorder (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 9522269)

Outcomes

Outcome 1: PTSD symptoms	
Description of Measures	PTSD symptoms were assessed with at least one of the following measures in each study: • PTSD Symptom Scale (PSS), a self-report measure consisting of 17 items that correspond to DSM-IV symptoms of PTSD. The PSS clusters symptoms into intrusive, avoidance, and arousal categories. Using a scale ranging from 0 to 3, participants rate each item. Scores are summed, and higher scores are associated with greater PTSD symptom severity. • Penn Inventory for PTSD, a self-report scale with 26 items based on DSM-III-R criteria for PTSD. Using a scale ranging from 0 to 3, participants respond to each item. Total scores range from 0 to 78, with higher scores indicating higher levels of PTSD symptom severity. • Crime-related PTSD Symptom subscale of the Symptom Checklist-90-Revised (SCL-90-R). The self-report subscale contains 28 items, and participants rate each item on a 5-point Likert scale. Higher scores indicate higher levels of PTSD symptom severity (based on DSM-III-R criteria). • Impact of Event Scale (IES), a 15-item measure assessing the frequency with which experiences of intrusions, avoidance, and emotional numbing related to stressful events were experienced in the past week. Participants respond to each item using a 4-point Likert scale. A total distress score is calculated by summing the response scores, with higher scores indicating higher levels of PTSD symptom severity (based on DSM-III-R criteria).
Key Findings	In one study, participants were randomly assigned to the TIR group or the wait-list control group. The PSS was administered to both groups at baseline and at 1-week and 3-month postintervention follow-ups.

	At the 3-month postintervention follow-up, participants in the TIR group had mean PSS scores that were lower than those of participants in the control group (8.5 vs. 15.8; $p < .01$), even after controlling for pretest differences ($p < .05$). In another study, participants were randomly assigned to the TIR group, the Direct Therapeutic Exposure (DTE) group, or the wait-list control group. The Penn Inventory for PTSD, the Crime-related PTSD Symptom subscale of the SCL-90-R, and the IES were administered to all three groups at baseline and 5 weeks later, after the final intervention session. At the completion of treatment, results included the following: • Participants in the TIR group had mean Penn Inventory scores that were lower than those of participants in the DTE group or the control group (19.6 vs. 29.5 vs. 42.8; $p < .04$). • Participants in the TIR group had mean Crime-related PTSD Symptom subscale scores that were lower than those of participants in the DTE group or the control group (0.63 vs. 0.97 vs. 1.55; $p < .04$). • Participants in the TIR group had mean IES scores that were lower than those of participants in the DTE group or the control group (19.9 vs. 35.5 vs. 49.9; $p < .02$).
Studies Measuring Outcome	Study 1, Study 2
Study Designs	Experimental
Quality of Research Rating	2.8 (0.0-4.0 scale)

Outcome 2: Depression	
Description of Measures	Depression was assessed with the Beck Depression Inventory (BDI), a 21-question self-report instrument. Scores range from 0 to 63, with higher scores indicating greater severity of depression.
Key Findings	Participants were randomly assigned to the TIR group or the wait-list control group. The BDI was administered to both groups at baseline and at 1-week and 3-month postintervention follow-ups. At the 3-month postintervention follow-up, participants in the TIR group had mean BDI scores that were lower than those of participants in the control group (9.7 vs. 17.5; $p < .01$), even after controlling for pretest differences ($p < .05$).
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	2.6 (0.0-4.0 scale)

Outcome 3: Anxiety	
Description of Measures	Anxiety was assessed with the Clinical Anxiety Scale (CAS), a 25-item self-report instrument. Higher scores indicate greater anxiety.
Key Findings	Participants were randomly assigned to the TIR group or the wait-list control group. The CAS was administered at baseline and at 1-week and 3-month postintervention follow-ups. At the 3-month postintervention follow-up, participants in the TIR group had mean anxiety scores that were lower than those of participants in the control group (46.3 vs. 55.0; $p < .01$), even after controlling for pretest differences ($p < .05$).
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	2.6 (0.0-4.0 scale)

Outcome 4: Expectancy of success

Description of Measures	Expectancy of success (i.e., self-efficacy) was assessed with the Generalized Expectancy for Success Scale (GESS), a self-report instrument with 30 items that measure the respondent's perceptions of whether his or her personal goals can be attained. Higher scores indicate a greater expectancy of success.
Key Findings	Participants were randomly assigned to the TIR group or the wait-list control group. The GESS was administered at baseline and at 1-week and 3-month postintervention follow-ups. At the 3-month postintervention follow-up, participants in the TIR group had mean GESS scores that were higher than those of participants in the control group (122.0 vs. 106.1; $p < .01$), even after controlling for pretest differences ($p < .05$).
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	2.6 (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	18-25 (Young adult) 26-55 (Adult)	100% Female	50% Black or African American 38.5% White 24% Hispanic or Latino
Study 2	13-17 (Adolescent) 18-25 (Young adult) 26-55 (Adult) 55+ (Older adult)	80.7% Female 19.3% Male	100% Non-U.S. population

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: PTSD symptoms	4.0	3.5	2.3	2.3	2.0	2.5	**2.8**
2: Depression	4.0	3.5	2.5	1.0	2.0	2.5	**2.6**
3: Anxiety	4.0	3.5	2.5	1.0	2.0	2.5	**2.6**
4: Expectancy of success	4.0	3.5	2.5	1.0	2.0	2.5	**2.6**

Study Strengths

One study used the PSS and BDI, which are gold standard instruments used widely with psychiatric patient populations; all other measures had good to excellent psychometric properties. In addition, the measures in both studies reflect multiple dimensions of PTSD. Both studies used a randomized design. Secondary analyses accounted for pretreatment differences between intervention and control group participants.

Study Weaknesses

TIR sessions are tailored on the basis of client needs; however, it is unclear how the tailored sessions were documented, monitored, and considered in terms of intervention fidelity, the ability of researchers to systematically collect data, and potentially unmeasured confounding variables. Although it was noted in one study that some participants did not complete a number of the questions, there was no indication of the extent of the missing data or whether missing data were addressed methodologically or statistically. In both studies, small sample sizes reduced the statistical power to control for confounding variables, to detect differences between groups, and to control for type I errors (i.e., identifying a significant relationship when one does not exist), given the large number of statistical tests conducted.

Readiness for Dissemination

Review Date: October 2011

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.

Basic T.I.R. hitch hiking [DVD]

Descilo, T. (2011). Training checklist for clinical staff, interns, and volunteers. Miami, FL: Trauma Resolution Center.

Program Web site, http://www.tir.org

Training Web site, http://www.metapsychology.org/trainersonly/

Volkman, M. K. (Ed.). (2007). Children and Traumatic Incident Reduction: Creative and cognitive approaches. Ann Arbor, MI: Loving Healing Press.

Volkman, V. R. (Ed.). (2005). Beyond trauma: Conversations on Traumatic Incident Reduction (2nd ed.). Ann Arbor, MI: Loving Healing Press.

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
3.8	4.0	3.3	**3.7**

Dissemination Strengths

The materials provide an overview of the program model, address a variety of implementation contexts, and provide a detailed implementation protocol for conducting sessions. The program Web site also contains articles about the program and case studies, which provide helpful information and insight for new implementers. The detailed materials describe the progression of the training process and supplemental workshops available. The training section of the program Web site lists available trainings and allows the user to search for certified trainers in different locations. Posttraining support is available, and its use is encouraged. The model uses standardized measures for trauma and anxiety, which contribute to program fidelity. Additionally, trainers are required to complete checklists, ensuring fidelity; trainees are also required to complete certification quizzes and evaluations at the end of the training, which supports fidelity and quality assurance.

Dissemination Weaknesses

The program Web site, which is where many implementation materials are located, is difficult to navigate. Guidance for the ongoing monitoring of intervention fidelity is limited to that which is included in the apprenticeship each trainer completes as part of the trainer certification process.

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
Licensing fee (includes implementation manuals)	$40 per participant	Yes
Traumatic Incident Reduction Training	$350-$750 per participant, depending on location and trainer	Yes
Traumatic Incident Reduction Expanded Applications Workshop	$350-$650 per participant, depending on site needs	No
Supervision for Train-the-Trainer Certification	Varies by provider	Yes, for trainers
Ongoing support from a certified trainer	Varies by provider	No

Additional Information

Training is conducted by trainers certified by Applied Metapsychology International.

Replications

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

Descilo, T., Greenwald, R., Schmitt, T. A., & Reslan, S. (2010). Traumatic Incident Reduction for urban at-risk youth and unaccompanied minor refugees: Two open trials. Journal of Child and Adolescent Trauma, 3(3), 181-191.

Dulen, S. B. (2011). Treatment of trauma for Latina and African American survivors of intimate partner violence. Unpublished doctoral dissertation, University of Miami, Miami, FL.

Contact Information

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Consider these Questions to Ask (PDF, 54KB) as you explore the possible use of this intervention.

Web Site(s):

- **http://www.tir.org**