Testing the ‘Teaching Kids to Cope’ Youth Anger Intervention in a Rural School-Based Sample
Highlights:

1. Youth in the U.S. confront anger and violence more directly and more frequently than do individuals in any other age grouping.

2. Teaching adolescents proper skills for coping with anger is an important nursing intervention.

3. State anger is a psychobiological emotional state of subjective feeling from mild irritation to rage whereas trait anger is individual differences in the disposition to perceptions and responses (Spielberger, 1999).

4. Few anger interventions are research-based, tested with randomized controlled trials, or examined for long-term effectiveness.

5. Results showed a significant difference in composite Anger Index scores on the STAXI-2 for both control and intervention groups one year after completion of the TKC-A intervention.

Key Words:

adolescents
anger
mental health
rural
school-based psychiatric nurses
Abstract

Purpose: This paper’s purpose is to report the longitudinal effect of the program, Teaching Kids to Cope with Anger (TKC-A), on self-reported anger in rural youth.

Study Design and Methods: One hundred and seventy nine youths ages 14 to 18 years old from three rural high schools consented to be randomized into a control (N=86) and an intervention group (N=93) for eight different sessions as well as complete the STAXI-2 anger instrument questionnaire at baseline, post intervention, six months, and one year. Two sample independent t-test statistics were used to analyze and compare the control and intervention groups overtime.

Results: Through analysis of the Anger Index subscale of the STAXI-2 at one year post intervention, a significant difference was reported between the control and intervention group. Many scores varie and remained within the normal range at one year post intervention on the STAXI-2 questionnaires. Participants reported that the intervention was helpful in coping with emotional, behavioral, and social cognition and stimuli that created anger.

Clinical Implications: Future research may utilize the TKC-A with youth who have anger management problems. Psychiatric-mental health nurses can screen youth for anger and be cognizant of coping skills of youth, assess for anger problems and provide health education to youth about how to cope with anger.
Introduction

Today’s adolescents are living in a complicated time of intense social change, casual portrayals of violence in media, and increasing economic pressures. These factors can cause anger, which is defined as, “an uncomfortable emotional response to a provocation that is unwanted and incongruent with a person’s values, beliefs, or rights” (Thomas, 2001, p. 42). Anger and aggression, however, are not synonymous; aggression is, “the actual or intended harming of another” (Thomas, 2001, p. 42). Youth violence may result from interpersonal violence, which is defined as “the intentional use of physical force or power, threatened or actual, against another person or against a group or community that results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation” (Dahlberg & Krug, 2002). The School Violence Resource Center notes that rates of violent incidents occurring in rural areas are increasing faster than similar rates in urban or suburban areas (2003). Mink, Moore, Johnson, Probst, and Martin (2005) found that there were 15 measurements that indicated risk of violence in adolescents, such as weapon carrying, suicide, or fear of violence; furthermore, rural adolescents are at a higher risk of violence than suburban and urban adolescents, because they are more likely to carry a weapon and are less protected from contact or witness to violence. In addition, rural schools are less likely to offer peer counseling and self-help, thus preventing necessary mental health care in order to cope with anger (Mink, Moore, Johnson, Probst, & Martin, 2005). Therefore, teaching adolescents to cope with anger, particularly rural adolescence, to prevent anger is essential.

The three leading causes of death among adolescents are injuries, homicide, and suicide; and they all share one common foundation: anger (CDC, 2008a). Unattended anger often leads to violence, a pervasive problem among our nation’s teens. Teaching Kids to Cope with Anger
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(TKC-A) is a behavioral intervention that addresses anger as a potential signal that may lead to problem behaviors in youth, especially those who live in rural areas for whom access to support is limited. One in six rural families live in poverty; high unemployment and other economic pressures put stress on teens, leading to increased risk of delinquency, alcohol and substance abuse, depression, school failure, poor relations with peers, loss of self-confidence, and anxiety. It is therefore no surprise that youths who reside in rural areas are susceptible to anger management difficulties, which are compounded by a lack of access to mental health services that are typical of their communities.

Teaching adolescents proper skills for coping with anger and prevention of aggression is an important nursing intervention. Numerous behavioral intervention programs have been developed that help adolescent cope with anger (Thomas & Smith, 2004; Snyder et al., 1999; Twemlow et al., 2001; Golden, 2003; Currie, 2004; Larson & Lochman, 2005). Psychiatric-mental health nurses, maternal-child nurses, and primary care nursing specialists can readily teach these coping skills to adolescents as part of their nursing practices in school-based or community settings.

Incidence and Prevalence of Youth Exposure to Violence in the U.S.

Youth in the U.S. confront anger and violence more directly and more frequently than do individuals in any other age grouping. In fact, violence is an ever-present reality in the lives of many youth. In 2008, 5,958 young people ages 10 to 24 were murdered, an average of 16 each day (CDC, 2009). Homicide was the second leading cause of death for young people ages 10 to 24 years old (CDC, 2009). According to the CDC (2010), in 2009 22% of students in grades 9 through 12 reported fighting on school property and 20% of the students in those same grades
had involvement in verbal or physical aggression and bullying. An estimated 30% of 6th to 10th graders in the U.S. were either a bully, a target of bullying, or both (Nansel et al., 2004).

In a 2007 nationally-representative sample of youth in grades 9-12, 35.5% reported being in a physical fight in the 12 months preceding the survey; 18.0% reported carrying a weapon (gun, knife or club) on one or more days in the 30 days preceding the survey; 5.2% carried a gun on one or more days in the 30 days preceding the survey (CDC, 2008a). In relation to school-based violence, a 2007 nationally representative sample of youth in grades 9-12 revealed that 12.4% of youth reported being in a physical fight on school property in the 12 months preceding the survey; 27.1% of students reported having property stolen or deliberately damaged on school property; 5.5% did not go to school on one or more days in the 30 days preceding the survey because they felt unsafe at school or on their way to or from school (CDC, 2008b).

Health disparities in exposure to violence are significant between groups of youth: Among 10 to 24 year-olds, homicide is the leading cause of death for African Americans; the second leading cause of death for Hispanics; and the third leading cause of death for Asian/Pacific Islanders and American Indians and Alaska Natives (CDC, 2012). Homicide rates among non-Hispanic, African-American males 10-24 years of age (62.2 per 100,000) exceeded those of Hispanic males (21.5 per 100,000) and non-Hispanic, white males in the same age grouping (3.4 per 100,000) (CDC, 2009).

In 2011, of a nationally-representative sample of youth, 32.8% reported being in a physical fight in the 12 months prior to the survey, 40.7% of them being male, and 24.4% of them being female (CDC, 2012). In 2011, more than 707,210 young people ages 10 to 24 were treated in emergency departments for injuries sustained from violence (CDC, 2012).

**Anger and Aggression in Adolescents**
State anger is a psychobiological emotional state of subjective feeling from mild irritation while trait anger is individual variances in the disposition to perceptions and responses (Spielberger, 1999). Anger, especially when uncontrolled, can be a significant problem for adolescents. Anger and the ability to control anger have been known to have an impact on physical and emotional health, social relationships, job, and academic performance (Kingery, Pruitt, & Heuberger, 1996). Puskar, Ren, Bernardo, Haley, and Stark (2008b) found self-reported anger in rural adolescents had significant negative correlations to perceived family social support, self-esteem, and optimism, whereas self-reported anger had significant positive correlations to negative life events, anxiety, drug use, and depressive symptoms. In other words, the 2008 study demonstrated that as self-reported anger scores increased so did the scores for negative life events, anxiety, drug use, and depressive symptoms. Puskar, Ren, Bernardo, Haley, and Stark (2008b) found that as participants’ self-reported anger scores decreased their scores of perceived family social support, self-esteem, and optimism increased.

Dodge (2001) has focused on studying aggressive kids and has advanced the science in youth violence prevention. Hubbard, Dodge, Cillessen, Coie and Schwartz (2001) noted that problems in social-cognitive processes in relationships were an important factor in boys’ aggressive behavior. This reaffirms that youth who are able to control their anger can effectively use cognitive reframing, verbalizations to moderate the angry response, and problem solving. Youth with uncontrolled anger are believed to be deficient in basic problem solving (Dodge, Laird, Lochman, & Zelli, 2002).

**Coping and Anger Management Interventions for Adolescents**

The effects of coping and anger management programs in adolescents have been widely reported in the literature. However, few anger interventions are research-based, tested with
randomized controlled trials, or examined for long-term effectiveness. In the past, Deffenbacher, Lynch, Oetting, and Kemper (1996) used interventions focusing on relaxation and social skills for adolescents. Both interventions showed equal amounts of decreased anger, outward expression of anger, and increase in ability to control anger. In Candelaria, Fedea, and Ahn’s (2012) study of anger management interventions, emotional awareness, role playing, relaxation techniques, problems solving CBT, and coping skill training were successfully utilized (p. 598).

A self-report from the adolescents that participated in a brief cognitive-behavioral therapy group and an assessment from their teachers, reflected a reduction in anger post intervention with these adolescents (Snyder, Kymissis, & Kessler, 1999). Larson and Lochman (2005) developed an 18 session Anger Coping Program for 8-12 year old youth with a cognitive behavioral framework for use in both school and clinic settings. Their anger program was co-lead by a school psychologist/counselor and a teacher. Outcome studies showed reduction in substance abuse.

Currie (2004) proposes using percussion therapy to intervene with angry adolescent males. This therapeutic modality consists of a structured program, and progresses from 1) introduction and group building games, 2) anger diaries, 3) evaluation of true and false entries, 4) discussion of accuracy of feelings, 5) standing up for self, 6) drumming game and anger identification, 7) group discussion of anger impact and reputation, and 8) group problem solving to ‘fix’ the anger.

Successful techniques for dealing with bullying in particular include physical education methods with role-playing and peer mentoring programs that teach anger management (Twemlow, Fonagy, & Sacco, 2001). Of the aforementioned studies and programs, none focused on rural youth. Golden (2003) discusses healthy aspects of anger. It is a natural emotion, varies
in intensity, and can be a response to feeling threatened. He suggests that being able to let go of anger is healthy. Six categories of strategies for handling anger are proposed as “1. physical expression that is direct or indirect; 2. verbal expression that is direct or indirect; 3. acceptance of oneself, others, or the situation; 4. forgiveness of oneself, others, or the situation; 5) reflection, and 6) suppression or repression” (Golden, 2003, p. 58). The goals are that youth will recognize unrealistic thoughts, use positive self talk, and relaxation exercises to cope with angry feelings.

In summary, a variety of group interventions have been studied with adolescents. Some anger management studies used cognitive-behavioral therapy groups with adolescents (Snyder et al., 1999; Larson & Lochman, 2005) while another example used relaxation and social skills (Deffenbacher et al., 1996). Percussion therapy has also been utilized to intervene with angry adolescent males (Currie, 2004). Last but not least, Twemlow et al. (2001) found success with techniques that included physical education methods with role-playing and peer mentoring programs that teach anger management.

**Study Design and Methods**

The purpose of this randomized controlled trial was to evaluate the effect of the Teaching Kids to Cope with Anger (TKC-A) program on self-reported anger experience and expression in rural youth. The aim was to longitudinally measure the outcomes of the TKC-A behavioral intervention on anger experience and anger expression measured at baseline, post intervention, six months, and one year in comparison with a control group. The study was approved by each high school’s board, and the university’s institutional review board. The research team presented information at each school site in an auditorium setting. Only the students that signed consents along with their parent’s signature were included in the study. The testing and intervention times and place were done during school time as coordinated with school personnel. Anonymity of the
individual findings was maintained using ID numbers and removing the names. Participants in the study, as well as teachers and other school staff, were asked not to discuss the study outside of the school buildings, during classes, or at home. This instruction was provided in an attempt to reduce the risk of intra-group communication becoming a serious confounding variable. In addition, all participants signed a contract confirming intention to maintain confidentiality and to not discuss the intervention with classmates, teachers, other school staff, or parents. The participants received $80 for completion of the four testing sessions and the randomized intervention groups.

The sample participants included 179 male and female students from three southwestern Pennsylvania rural public high schools. Using PASS software we conducted a power analysis and determined that we had sufficient power, at 0.82 with small effect size, to conduct the study with our sample size. Inclusion criteria included students ability to read and write English. The majority of the participants were White, Non-Hispanic (86%; N = 154). Their ages ranged from 14-18 years (mean = 15.61) with females (52.51%; N = 94) and males (47.49%; N = 85). Over half of the participants were in ninth grade (56.42%; N = 101). The remainder of the students were in the tenth grade (25.70%; N = 46) and eleventh grade (17.88%; N = 32). A large majority were in academic programs (90.3%; N = 158) with those remaining attending vocational, business, and remedial programs.

Approximately four in ten fathers had a high school diploma (41%; N = 73) and a bachelor’s degree (10%; N = 18). The mothers were similar with having a high school diploma (34.27%; N = 61) and a bachelor’s degree (17.42%; N = 31). The student’s father and mother’s jobs varied widely. Fathers’ job most frequently reported was a mechanic (8.85%; N = 10)
followed by a mill worker (6.19%, N = 7). Mothers’ top three jobs reported were nurses (15.27%, N = 20); secretaries (10.69%, N = 14); and teachers (7.63%, N = 10).

Measures

Demographic information was collected at baseline only. An anger measure was given to the control group and intervention group at baseline, post intervention, six months, and one year post intervention. Anger was measured with the State-Trait Anger Inventory (STAXI-2), which is a self-report instrument that measures anger experience and anger expression with a Likert response format (Spielberger, 1999). STAXI-2 has 57 items and 12 subscales. Participants use a four-point scale to record how anger is experienced, expressed, suppressed or controlled. The questionnaire takes about twelve minutes to complete.

Anger experience is described according to state and trait subscales. State anger is the condition of irritation to rage with physiological reaction. Trait is the individual disposition and temperament. Trait anger is further divided into subscales representing temperament and reaction. Anger expression is measured in three subscales that examine the frequency with which angry feelings are suppressed (Anger-In), or expressed (Anger-Out), and the frequency with which a person attempts to control anger expression (Anger Control). An overall score of anger expression is computed from scores on Anger-In, Anger-Out, and Anger Control, which together constitutes the Anger Index.

STAXI-2 is used with both adolescents and adults. Adolescents had substantially higher scores on the Trait Anger Scales and subscales, as well as on the Anger-Out and Anger-In scales, and lower on the Anger Control scale than the older college student. According to Spielberger (1999), anger experience and expression declines with age and anger control increases with age (p. 12). Scores between the 25th and 75th percentile are considered normal. The STAXI-2 State
Anger scale assesses the intensity of anger as an emotional state at a particular time. The Trait Anger scale measures how often angry feelings are experienced over time; we did not examine trait anger. The Anger Expression and Anger Control scales assess four relatively independent anger-related expressions or acts, or state anger: (a) expression of anger toward other persons or objects in the environment (Anger Expression-Out); (b) holding in or suppressing angry feelings (Anger Expression-In); (c) controlling angry feelings by preventing the expression of anger toward other persons or objects in the environment (Anger Control-Out); (d) controlling suppressed angry feelings by calming down or cooling off (Anger Control-In). Individuals rate themselves on 4-point scales that assess both the intensity of their anger at a particular time and the frequency that anger is experienced, expressed, and controlled.

All scales and subscales alpha coefficient measures of internal consistency were uniformly high (0.84 or higher, median $r = 0.88$), except for the four-item T-Ang/R subscale for 0.76 and 0.73 for normal females and males, respectively. The internal consistency reliabilities were not influenced by either gender or psychopathology and are satisfactory.

**Intervention**

Using stratified randomization, the participants were randomized by grade and gender into a control ($N = 85$) and intervention group ($N = 93$). Those in the intervention group were given a schedule that included the time and place of the TKC-A groups while the control participants remained in previously scheduled school classes. The TKC-A program was developed and adapted from the original Teaching Kids to Cope (TKC) program (blinded et al. 1997; blinded et al. 2003). This program was adapted to eight sessions each lasting one class period. Each group session is divided into two portions: 1) the didactic portion where the
students review information regarding anger, cognitive distortions, and healthy coping; and 2) the experiential portion which includes cognitive reframing exercises, problem solving, role playing, and other activities (mural). The eight session topics were: 1) orientation, group rules and trust; 2) self-esteem and optimism; 3) stressors and anger response; 4) coping: approach and avoidance, ten cognitive distortions [thinking errors]; 5) culture of community; 6) anger and health outcomes; 7) family, community, peer social support and 8) review and closure. Workbooks of the program were distributed to students that included self-awareness activities, topics of anger, anger triggers, problem solving worksheets and tips to manage anger.

The principal investigator trained the interventionists who were a master’s degree nurse clinical specialist and a master’s degree clinician. The interventionists received 12 hours of training in TKC-A protocol; adolescent development; and rapport issues of working with adolescents; principles of group therapy; group dynamics including videotapes on conducting groups with adolescents. Discussion and planning was done before and after each session.

**Results**

The descriptive results of the anger measure were within normal limits for age and gender. The effect of TKC-A was seen on several outcomes. In order to compare the difference between the control and intervention group over time, two sample independent t-test statistics were used for baseline, post intervention, six months, and one year. No significance was found between the intervention and control group in 11 of the 12 STAXI-2 subscale scores. These findings suggest that these outcomes may not be appropriate indicators of the program effectiveness and that the TKC-A may not affect all of the 12 anger subscales. Table 1 reflects the findings.
“State anger reflects at a particular time the intensity of feelings and extent the participant feels like expressing it” (Spielberger, 1999, p. 2). Table 1 show that the participants in the intervention group and the control group had similar random variations in their subscale scores. Verbal expression declined consistently over time in the intervention group. The control and intervention group scores were both below baseline scores at one year. This fits Spielberger’s (1999) prediction that expression decreases with age.

Intervention groups’ mean anger expression-out scores (expressed in verbally or physically aggressive behavior) increased slightly after intervention then declined below baseline at six months and one year. The control group did the same. Anger expression—in (suppressed feelings) decreased consistently until six months then increased slightly, so did the control group. No differences were noted in the overall patterns between the intervention and control group related to anger control-out (outward expression of angry feelings) by one year. Anger control-in (calming down or cooling off) scores of the intervention group and the control group had similar patterns in their scores.

The intervention group’s Anger Index scores (general score of expressed anger) increased post-intervention then decreased. The control group also followed the same pattern. There is a significant difference between the intervention and control group ($p = 0.007$) at time point one year. The anger scores are complicated but overall followed the pattern of the control group sample. Any differences between the intervention group and control group may be a consequence of the acceptance to explore anger by recognizing angry thoughts and feeling more freely.

Evaluative reports were positive from school personnel, family members, and participants. In a support letter written by director of curriculum, it was stated “We are pleased
to report that we have had success with a program for our 9th grade students who had anger issues.” One mother reported, during a phone call follow up at 6 months, that her daughter loved the groups, and the mother saw an improved difference in her daughter from the previous year.

Participants’ quotes from the comment section on their evaluations included: “This was a good thing that we did;” “This was great for us as freshmen;” “Make it continue;” “Thanks for a wonderful experience.” Also at the last session, participants were asked to create murals to represent what they learned from the TKC-A groups. Some examples were: take a walk in the woods to let anger out without creating conflict; don’t get out of control and do stupid things; learn to accept help when help is given; stay positive; sometimes your life gets turned upside down but you have to learn to deal with it and make the most of it; sometimes it’s better to let anger out by letting someone know how you feel while other times it’s best to keep it in; to think over decisions because what we do, everything we do, affects us.

The use of a self-report psychological measure is strength and a limitation, in that this process reflects information via the subject. A theoretical proposition that supports self-report is that the stress of an event is best measured through the perception of the person. It also provides economical easily-scored measures. However, the potential problems of distortion and defensiveness in this method of measurement are acknowledged.

The findings are limited to a rural population of youth and may not be able to generalize findings to other populations of youth. The sample was from public high schools and was not limited to only those with anger problems. It could be speculated that no significance was due to the sample being a fairly normal community sample, not a clinical sample of high risk angry adolescents. A limitation of the study is the predominately white, non-Hispanic sample of youth. The rural population of this area of the country is very heavily Caucasian, however, so this study
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can be seen as representative of the rural population of the broader region. Another limitation is
the ‘normal’ (non-pathological) sample that was enrolled. However, again, we felt that
important findings could be discovered by closely examining patterns of variations of the
findings we did achieve. At times, as much can be learned from sampling of a normal
population as from a sample with strong selection biases.

There are many strengths to this research, including significance, validity, and dropout
rate. The assessment and management of anger is an important and timely issue both in the U.S.
and internationally. It contributes to the understudied rural community by using a behavioral
intervention with a randomized control group for youth, plus a longitudinal perspective. The
validity of the research is backed by the experienced investigators, the univariate and
multivariate repeated measures design over time, the use of a control group for measuring the
effects of testing. The dropout rate was small (9.43%, N = 19) with the majority of reasons due
to moving, withdrawing from school, homebound or in the hospital (N = 15). This project will
significantly add to the existing body of knowledge on anger management interventions and rural
maternal child health.

Clinical Nursing Implications

It is possible that minimal significance was due to the sample being a normal community
sample, not a clinical sample of adolescents that are at high risk with angry feelings and
behaviors. “When reading and interpreting research reports, it is important to assess the
relevance of the findings, regardless of whether they are statistically significant” (Beyea &
Nicoll, 1997, p. 1130). The anger scores are complicated but the overall scores followed the
pattern of the control group sample. The areas of deviation in the intervention group may be
contributed to the group’s theme focus of acceptance to explore anger by recognizing anger and
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talking about anger. Reports were positive from school personnel, parents, and participants’
comments. Healthy ways to channel anger is useful to their self-esteem and optimism as noted in
student comments. The mural quotes supported that these health promotion groups taught youth
about coping and anger management therefore indicating clinical significance.

Psychiatric-mental health nurses work in a variety of settings with families and are in the
position to make a positive impact on children and adolescents in regard to expressing and
experiencing anger. Behavioral health is important and teaching or coaching youth about how to
cope with anger is an important part. It is valuable to teach them by example and provide health
promotion classes on anger management. Community health nursing is grounded in primary
prevention of screenings and teaching self-care skills. For example, nutrition is taught to all
mothers and children to prevent obesity and promote health, therefore teaching anger
management to all children would hopefully prevent violence and other negative outcomes from
anger. The next step would be secondary prevention which is treating those identified with anger
problems and tertiary prevention is rehabilitation of those post treatment. The goal is to decrease
anger related problems by teaching kids to cope with anger to avoid negative consequence from
anger.

Academic achievement and mental health is an area of interest for professionals, parents,
and children (Puskar & Bernardo, 2007). Assessing anger as part of mental health and sustaining
our attention and effort in preventing violence is important (Lamb, Puskar, Sereika, Patterson, &
Kaufmann, 2003; Delaney & Puskar, 2003). Families need to be realistic about their
expectations to eliminate anger. Nurses have the potential to screen and refer their clients,
especially the high risk populations in regard to anger management skills. Psychiatric-mental
health nurses may replicate the Teaching Kids to Cope with Anger program in primary care or
school-based clinics, programs for single mothers, detention homes, or other hospitalized youth services. Psychiatric-mental health nurses function in a variety of setting and have many possibilities to make a positive impact on mothers and children in regard to anger management. In addition, school nurses, counselors and psychologists, in particular, can be better informed for how to assess for anger problems in school environments. Teachers, other school staff and parents, as well as maternal-child nurses, can use the results of this study to learn how to better screen adolescents for anger coping. Results can guide adults to recognize the causes of anger in rural teens and to intervene earlier to prevent more serious problems. Key questions that nurses and school staff can use to help identify problematic anger situations is presented in the following table.

<table>
<thead>
<tr>
<th>Key Problem Anger Assessment Questions for Rural Teens</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you ever feel like you can’t control your anger?</td>
</tr>
<tr>
<td>2. Do you ever feel like you can’t handle the stress in your life?</td>
</tr>
<tr>
<td>3. Do you ever feel like life has been unfair to you?</td>
</tr>
<tr>
<td>4. Do you ever say things out of anger, stress or frustration that you later regret?</td>
</tr>
<tr>
<td>5. Do you ever worry about where your anger is going to lead?</td>
</tr>
</tbody>
</table>

Learned results of the Teaching Kids to Cope-Anger intervention are being used a local children’s and pediatric hospital, in cancer clinics and a cystic fibrosis clinic, in applications with teens losing limbs as the result of accidents or therapeutic amputations, and in a medical coping clinic in the U.S. Interventions include teaching kids deep breathing, exercise within their therapeutic capacity, and meditation. In some settings nurses have offered support groups on
accepting illness, coping with disease, anger and uncertainty. Educational materials for teens can be adapted to include information on research findings about teen anger and recommendations on coping with anger.

In summary, we found clinical significance recognized by evaluative comments from intervention participants, as noted by the following comments: “Behavioral health is important”, and “Teaching or coaching youth about healthy ways to channel anger is useful for lifelong learning.” Research is needed to explore if problems were prevented by avoiding the misuse of anger and what effect that had on self-esteem and optimism in those youth. The TKC-A intervention has been designed to identify features of rural life and adolescent development and to target unique stressors associated with rural communities in America. The TKC-A intervention has not been tested with other groups of adolescents, though clinicians have requested the intervention and indicate that they have implemented it, though not systematically tested it themselves. The investigative team plans to test the TKC-A intervention with an urban sample. By comparing and contrasting those results we anticipate being better able to identify how and why the intervention is successful or not successful.

**Suggested Clinical Nursing Implications**

- Screen families for self-reported anger, teach, and refer families to mental health specialists as needed.
- Teach mothers and fathers that anger is a natural emotion, varies in intensity, and can be a response to feeling threatened. Review risks and benefits of anger. Replicate the TKC-A as a health promotion intervention.
- Teach anger management to parents and children in high risk categories.
This study produced meaningful results in at least one composite measure of anger. The TKC-A intervention itself was positively received by study participants. This program was beneficial to the intervention participants based on a variety of qualitative features, including: a) participants’ evaluations, b) anecdotal notes, and c) mural comments. The TKC-A can be implemented with youth experiencing and expressing anger that interferes with their optimal functioning. It has potential to be used and tested in juvenile detention centers or other organizations that service adolescents who are with ineffective coping, especially with anger. Psychiatric-mental health nurses are in a good position to screen families for self-reported anger, teach anger management skills, and refer families to mental health specialists as needed.
References


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Table 1
The Comparison of the Subscales Measures of STAXI-2 At Baseline, Post Intervention, 6 Months And 1 Year Between the Control (C) and Intervention (I) Groups  \( N = 179 \)

<table>
<thead>
<tr>
<th>STAXI-2</th>
<th>Baseline</th>
<th>Post</th>
<th>6 mo</th>
<th>1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C Mean-SD</td>
<td>I Mean-SD</td>
<td>C Mean-SD</td>
<td>I Mean-SD</td>
</tr>
<tr>
<td>2. Feeling Angry</td>
<td>7.10-2.6</td>
<td>7.44-2.96</td>
<td>7.25-2.53</td>
<td>7.84-3.44</td>
</tr>
<tr>
<td>4. Physical expression</td>
<td>5.77-2.21</td>
<td>5.99-2.42</td>
<td>5.89-2.15</td>
<td>6.72-3.63</td>
</tr>
<tr>
<td>7. Reaction</td>
<td>8.82-2.82</td>
<td>8.73-3.00</td>
<td>9.08-3.03</td>
<td>8.44-3.03</td>
</tr>
<tr>
<td>10. Control - Out</td>
<td>22.51-5.01</td>
<td>22.01-4.88</td>
<td>22.33-5.28</td>
<td>21.07-5.33</td>
</tr>
</tbody>
</table>

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Table 2
Participant’s Evaluation of the TKC-A Groups

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>Purpose of the group - clear</td>
<td>96%</td>
</tr>
<tr>
<td>Size was right</td>
<td>84%</td>
</tr>
<tr>
<td>Length of time - fine</td>
<td>74%</td>
</tr>
<tr>
<td>Pace - right</td>
<td>86%</td>
</tr>
<tr>
<td>Number of sessions - fine</td>
<td>69%</td>
</tr>
<tr>
<td>Time of day - fine</td>
<td>89%</td>
</tr>
<tr>
<td>Opportunity to participate</td>
<td>96%</td>
</tr>
<tr>
<td>Discussion &amp; materials - useful</td>
<td>94%</td>
</tr>
<tr>
<td>Application to daily life</td>
<td>100%</td>
</tr>
<tr>
<td>Group encouraged thought</td>
<td>93%</td>
</tr>
<tr>
<td>Group members concern for each other evident</td>
<td>84%</td>
</tr>
<tr>
<td>Leader’s concern evident</td>
<td>97%</td>
</tr>
<tr>
<td>Way sessions conducted - effective</td>
<td>100%</td>
</tr>
<tr>
<td>Overall rating - fair to excellent</td>
<td>94%</td>
</tr>
</tbody>
</table>
3/18/2014
Testing the ‘Teaching Kids to Cope’ Intervention