Kasetsart Journal of Social Sciences 41 (2020) 147–151

Kasetsart Journal of Social Sciences

journal homepage: http://kjss.kasetsart.org

Exploring the effectiveness of cognitive behavioral therapy for Vietnamese adolescents with anger problems

Huyen Thi Bui [a, *], Lynn Mackie [b], Phuoc Anh Hoang [a], Thu Thi Tran [a]

[a] Department of Psychology and Education, Hanoi National University of Education, 136 Xuan Thuy, Cau Giay, Hanoi, Vietnam
[b] Bolton Educational Psychology Services, United Kingdom

Article Info

Article history:
Received 23 October 2017
Revised 17 January 2018
Accepted 9 May 2018
Available online 26 May 2018

Keywords:
anger problems,
cognitive behavioral therapy,
Vietnamese adolescents

Abstract

The evidence base for cognitive behavioral therapy (CBT) is promising for the treatment of anger in both adults and children in most European and Western countries. The goal of the current study was to explore the effectiveness of this therapeutic approach for anger problems in Vietnam as a non-Western culture and non-English speaking country. A randomized controlled trial was undertaken with 40 adolescents for three months, using different CBT techniques. A medium effect size of .64 (Cohen's d) was found for a CBT intervention. Anger management skills of older adolescents (aged from 14 to 16) improved more than those of younger adolescents (aged from 12 to 13). The findings of the current study replicated previous studies regarding the high cost-effectiveness of CBT intervention for anger problems in children and adolescents. Furthermore, the suitability of the group CBT format for the treatment of anger within this study was consistent with other studies as well. This adds valuable evidence to the paucity of CBT literature on culturally responsive CBT in diverse populations. Despite this, more research is needed to produce evidence-based CBT for other Asian countries as well as other populations.

Introduction

In the literature, research has found that anger has received less attention than other emotions, such as anxiety or depression (DiGiuseppe & Tafrate, 2010). Although anger is one of the basic human emotions (Stringaris, 2015), it is widely viewed as a negative emotional state (Berkowitz, 1993; Nelson & Schultz, 2009). When anger is excessive in frequency and duration (Kennerley, Westbrook, & Kirk, 2016) or left untreated, it can lead to various emotional and behavioral problems, particularly for children and adolescents (Alavinezhad, Mousavi, & Sohrabi, 2014). The experience of anger has been believed to be a common occurrence in adolescence (Blake & Hamrin, 2007; Down, Willer, Watts, & Griffiths, 2011), and it is also a common foundation of three of the main causes of death in adolescents, injuries, homicide, and suicide (Puskar, Ren, & McFadden, 2015). There is, fortunately, evidence that cognitive-behavioral therapy (CBT) can be an effective treatment for anger problems (Kennerley et al., 2016). To date, 10 meta-analytic reviews of the effect of psychology for anger treatment have been published (Beck & Fernandez, 1998; Del Vecchio & O'Leary, 2004; DiGiuseppe & Tafrate, 2003; Edmondson & Conger, 1996; Gansle, 2005; Henwood, Chou, & Browne, 2015; Ho, Carter, & Stephenson, 2010; Saini, 2009; Sukhodolsky, Kassinove, & Gorman, 2004; Tafrate, 1995). The treatment outcomes of these meta-analyses suggest that cognitive behavioral therapy is effective and produces a moderate effect size. For example, a medium effect size (Cohen's $d = .67$) was found in Sukhodolsky et al.'s (2004) study for CBT in the treatment of anger for children and adolescents.

* Corresponding author.
E-mail address: thesmalldaughter@gmail.com (H.T. Bui).
Peer review under responsibility of Kasetsart University.

https://doi.org/10.1016/j.kjss.2018.05.013
2452-3151/

Similarly, CBT was moderately effective for anger-related behaviors in children with special education needs (Ho et al., 2010).

Among different psychological therapies, CBT is not viewed as a singular approach, but as comprising or merging with other approaches (for example, cognitive and behavioral approaches) with the aim of helping clients to achieve appropriate cognition, emotion, and behavior (Curran, Machin, & Gournay, 2006). Kendall, Peterman, and Cummings (2015, p. 496) argued that CBT "*represents an integration of both cognitive and behavioral models of psychopathology*". The basic as well as the traditional CBT model sees that psychological distress consists of three key elements: feelings, cognitions, and behaviors. All these elements are interrelated so a change in one element can lead to a change in either of the others. For example, Simmons and Griffiths (2014) propose a model of CBT supposing that situations themselves do not cause the physiological problems, but rather it is the way people interpret, make sense of, and react to situations. People will experience distress if they interpret an event negatively. Intervention based on the CBT model aims to correct negative bias in thinking processes and behavioral reactions. In other words, cognitive behavioral interventions break the vicious cycle of the problems by creating positive change in one or more elements of the psychological distress with the use of various techniques and strategies. Nevertheless, the vast majority of CBT studies have been undertaken with Western samples (Hays & Iwamasa, 2014; Naeem, Gobbi, Ayub, & Kingdon, 2010) regarding anger-related problems. Also, few programmes have been implemented with school-age children (Blake & Hamrin, 2007). The evidence to support the effectiveness of CBT for non-Western norms is, unfortunately, limited. While there is a current need for culturally responsive CBT (Hays & Iwamasa, 2014), would CBT as "*the most widely researched evidence-based psychotherapy*" (Hays, 2009, p. 354) be effective for treating anger problems in Vietnamese adolescents? The current study aimed to explore the effectiveness of CBT in a particular context in order to answer the above question.

Method

Participants

Based on results from a screening study with 395 adolescents, 40 students were identified as having moderate and high anger problems and so were chosen for the study. The Children's Inventory of Anger (the CHIA-Nelson & Finch, 2000) was employed here as a screening measure, and these 40 chosen students were selected according to certain criteria. As such, they all had anger T scores ranging from 60 to 70 which were then viewed as being clinically significant indicators of anger according to the CHIA's manual. These 40 adolescents were then randomly allocated to either the study group for three months or to the comparison group.

Setting

The CBT intervention was undertaken in the school environment (a private school in Hanoi) which offers school psychology services to students.

Measures

The Children's Inventory of Anger (the CHIA-Nelson & Finch, 2000), which had already been tested with high reliability and validity in a Vietnamese sample, was employed as the main assessment tool for adolescents and was used pre-treatment and post-treatment. According to Nelson and Finch (2000), the CHIA has an excellent internal consistency with a Cronbach alpha coefficient reported of .95. In the current study, the Cronbach alpha coefficient for the CHIA was .91. Once students were identified as having anger problems through the CHIA (pre-treatment), the intervention was then conducted for three months and the post-treatment measurement was undertaken after the intervention.

Procedures

The procedures followed were in accordance with the ethical standards of the University of Bolton (University Code of Practice on Ethical Standards for Research Involving Human Participants) and were approved by the Board of Studies for Research Degrees. Before the intervention, all participants were asked to sign an informed consent form to indicate that they were aware of being involved in the intervention and agreed to join, along with the agreement of their parents or caregivers.

The CBT intervention was carried out in a group format with 20 adolescents aged from 12 to 16 years for 12 weeks in 2015. Assessments were undertaken pre-treatment and post-treatment for both the control and the intervention groups. The CBT intervention included psycho-education about anger, the benefits and costs of becoming angry, the basic principles of CBT, and practicing anger management skills such as self-talk, problem solving, assertion, and relaxation.

Design

A randomized controlled trial (RCT) was conducted on adolescents who had been identified as having anger problems through the Children's Inventory of Anger. In total, 40 students experiencing moderate and high anger problems were allocated to either the intervention ($N = 20$) or the control conditions ($N = 20$). While children in the intervention were offered a CBT intervention for three months, those in the control condition did not receive any treatment. After three months, these 40 students again completed the CHIA to evaluate their improvement in terms of anger management skills.

Results

At the end of the 12- week study, no dropouts were reported. A paired-samples *t*-test was performed to explore the impact of the CBT intervention with Vietnamese adolescents who were identified with moderate and high anger problems. The results revealed that there was a statistically significant decrease in anger score from time 1 (pre-treatment) ($M = 114.08$, $SD = 8.35$) to time 2 (post-treatment) ($M = 108.60$, $SD = 8.61$), t (39) = 5.22, $p < .001$

Table 1
Anger score for intervention and the control groups across two time periods

Condition	Pre-intervention			Post-intervention			t	p
	N	M	SD	N	M	SD		
Control	20	112.80	6.93	20	119.90	7.04	5.22	<.001
Intervention	20	115.40	9.57	20	105.30	8.93		

Table 2
Mean and SD of younger and older adolescents over two time periods

Age group	Pre-intervention			Post-intervention			F	p
	N	M	SD	N	M	SD		
Older adolescents	10	110.80	8.45	10	100.20	8.02		
Younger adolescents	10	120.00	8.65	10	110.40	6.81		
Total	20	115.40	9.57	20	105.30	8.93	8.70	.009

(two-tailed). The comparison between the control and the intervention group showed there was also a difference in anger scores between the two intervals (Table 1). A medium effect size (Cohen's $d = .64$) was found for CBT in treating anger problems in Vietnamese adolescents.

A two-way 2 × 2 (Age [younger adolescents, older adolescents] × Time [time 1, time 2]) mixed between-within subjects analysis of variance (ANOVA) was conducted to find out if anger scores differed with age. The results illustrated that there were no statistically significant differences in anger scores for age at time 1, but a difference was found for age at time 2 (Table 2). The ANOVA result indicates that older adolescents (aged 14–16 years) had a greater reduction in anger score than younger adolescents (aged 12–13 years), $F(1, 18) = 8.70$, $p = .009$, partial eta squared = .32.

Discussion and Implications

The findings from this RCT were broadly consistent with previous studies regarding the effectiveness of CBT for anger problems in children. A medium effect size (Cohen's $d = .64$) was similar to previous studies about the effectiveness of CBT for children with anger problems. As cognitive behavioral techniques are the most widely used and empirically validated for anger and aggression in young people (Blake & Hamrin, 2007), these CBT techniques were also found to be useful and had promising impact for adolescents suffering anger problems in this study. In particular, skills training was more effective in reducing anger experiences. The outcome of the current study interestingly replicates studies of Western samples. We commonly see the differences between Western and non-Western countries in terms of cultures, beliefs, values, and rationality (González-Prendes, 2013; Kelly, 2014; Naeem, 2011). Nevertheless, we found CBT had moderate effectiveness for Vietnamese adolescents as in other studies in Western children. This is valuable because it adds more to the literature of the acceptability and the efficacy of CBT for Asian populations with anger problems, which is still limited.

The suitability of group CBT for anger problems in children was clarified within this study. This randomized controlled trial also verifies the conclusion of Siddle, Jones, and Awenat (2003) as well as of Down, Willner, Watts, and Griffiths (2011) that "*group anger management interventions appear to be more cost-effective*" (Down et al., 2011, p. 34).

Within the current RCT, older adolescents (aged 14–16 years) reduced anger scores more than younger adolescents (aged 12–13 years). This is also congruent with other studies suggesting that older adolescents benefit more from group CBT than younger adolescents (Durlak, Fuhrman, & Lampman, 1991; Sukhodolsky et al., 2004), and adolescents aged 14 years and above benefitted the most from CBT groups (Down et al., 2011). With regard to the increase in anger scores in the control group (Table 1), it is worth noting that not only did the intervention lead to a decrease in anger scores in the intervention group but this occurred, when, under the general conditions in schools, the control group evidenced increasing anger. This proves that intervention, particularly CBT interventions, for children with anger problems in school is vital and needs to be done regularly. Within this study, no dropouts were reported. This is consistent with Graham's (2005) conclusion that the dropout rate of clinical trials with children and adolescents has been relatively low (less than 15%) compared with that of adult therapy using CBT (reported at 26.2%; Fernandez, Salem, Swift, & Ramtahal, 2015).

Finally, the current study with non-Western samples indicates that self-report inventories are effective and suitable for identifying anger problems, and these anger assessments which were developed in the West can be applied effectively to Asian populations. Within this study, the CHIA helped to not only identify students with anger problems but also to evaluate the effectiveness of the CBT intervention. Most researchers have highlighted the suitability and the availability of self-report measures for measuring people' beliefs and feelings (for example, Field & Hole, 2003; Haslam & McGarty, 2014; Nelson & Finch, 2000) and the current study replicated that conclusion. This study also provided an explanation for the suitability of self-report inventories for anger to the extent that the CHIA assesses the experience of anger of children but not the expression of anger. In the literature, the emotion of anger is considered as one of the five basic human emotions along with happiness, fear, joy, and sadness

(Stringaris, 2015). Additionally, it has been commonly accepted that anger is a universal and a natural emotion, experienced more similarly around the world than differently (Tanaka-Matsimu, 1995).

Despite this, a criticism of the study may lie in the fact that no follow-up was included, which prevented the study from investigating the improvement of children over time or the maintenance of gains. It is concluded that although effective, the application of CBT in the current study was only the first attempt in Vietnamese culture to implement and evaluate a CBT-based intervention for anger problems. Therefore, more research is needed to confirm that "*CBT is the psychotherapeutic model of choice across cultures if adapted appropriately*" (Rathod & Kingdon, 2009, p. 370).

In terms of implications, the current study emphasizes the effectiveness of CBT intervention for anger problems (particularly with older adolescents), the value of a control group (which in this case seems to clearly indicate that without intervention the anger problems deteriorated rather than ameliorated), further emphasizing the importance of a timely intervention and the value of self-report inventories. Other recommendations for future studies would be to examine the effectiveness of CBT for child offenders or with clinical populations in other Asian countries, because participants in the current study were drawn from a non-clinical population and were not offenders or from clinical populations.

Conflict of Interest

The authors have no conflict of interest.

References

Alavinezhad, R., Mousavi, M., & Sohrabi, N. (2014). Effects of art therapy on anger and self-esteem in aggressive children. *Procedia Social and Behavioural Science, 113*, 111–117. https://doi.org/10.1016/j.sbspro.2014.01.016.

Beck, R., & Fernandez, E. (1998). Cognitive-behavioural therapy in the treatment of anger: A meta-analysis. *Cognitive Therapy and Research, 22*(1), 63–74. https://doi.org.ezproxy.bolton.ac.uk/10.1023/A:1018763902991.

Berkowitz, L. (1993). *Aggression: Its cause, consequences, and control*. New York, NY: McGraw-Hill.

Blake, C. S., & Hamrin, V. (2007). Current approaches to the assessment and management of anger and aggression in youth: A review. *Journal of Child and Adolescent Psychiatric Nursing, 20*(4), 209–221.

Curran, J., Machin, C., & Gournay, K. (2006). Cognitive behavioural therapy for patients with anxiety and depression. *Nursing Standard, 21*(7), 44–52.

Del Vecchio, T., & O'Leary, K. D. (2004). Effectiveness of anger treatments for specific anger problems: A meta-analytic review. *Clinical Psychology Review, 24*(1), 15–34. https://doi.org.ezproxy.bolton.ac.uk/10.1016/j.cpr.2003.09.006.

DiGiuseppe, R., & Tafrate, R. C. (2003). Anger treatment for adults: A meta-analytic review. *Clinical Psychology – Science and Practice, 10*, 7084.

DiGiuseppe, R., & Tafrate, R. C. (2010). *Understanding anger disorder*. New York, NY: Oxford University Press.

Down, R., Willner, P., Watts, L., & Griffiths, J. (2011). Anger management groups for adolescents: A mixed-methods study of efficacy and treatment preferences. *Clinical Child Psychology and Psychiatry, 16*(1), 33–52. https://doi.org.ezproxy.bolton.ac.uk/10.1177/1359104509341448.

Durlak, J. A., Fuhrman, T., & Lampman, C. (1991). Effectiveness of cognitive behaviour therapy for maladapting children: A meta-analysis. *Psychological Bulletin, 110*(2), 204–214.

Edmondson, C. B., & Conger, J. C. (1996). A review of treatment efficacy for individuals with anger problems: Conceptual, assessment, and methodological issues. *Clinical Psychological Review, 16*, 251–275.

Fernandez, E., Salem, D., Swift, J. K., & Ramtahal, N. (2015). Meta-analysis of dropout from cognitive behavioural therapy: Magnitude, timing, and moderators. *Journal of Consulting and Clinical Psychology, 83*(6), 1108–1122. https://doi.org.ezproxy.bolton.ac.uk/10.1037/ccp0000044.

Field, A., & Hole, G. (2003). *How to design and report experiments*. London, UK: Sage.

Gansle, K. A. (2005). The effectiveness of school-based anger interventions and programme: A meta-analysis. *Journal of School Psychology, 43*, 321–341.

González-Prendes, A. A. (2013). Culture-sensitive regulation of anger. In E. Fernandez (Ed.), *Treatments for anger in specific populations: Theory, application and outcome* (pp. 236–255). New York, NY: Oxford University Press.

Graham, P. (2005). Jack Tizard lecture: Cognitive behaviour therapies for children: Passing fashion or here to stay? *Child and Adolescent Mental Health, 10*(2), 57–62. https://doi.org.ezproxy.bolton.ac.uk/10.1111/j.1475-3588.2005.00119.x.

Haslam, S. A., & McGarty, C. (2014). *Research methods and statistics in psychology* (2nd ed.). Los Angeles, CA: Sage.

Hays, P. A. (2009). Integrating evidence-based practice, cognitive-behaviour therapy, and multicultural therapy: Ten steps for culturally competent practice. *Professional Psychology – Research and Practice, 40*(4), 354–360. https://doi.org.ezproxy.bolton.ac.uk/10.1037/a0016250.

Hays, P. A., & Iwamasa, G. I. (2014). *Culturally responsive cognitive-behavioral therapy: Assessment, practice, and supervision*. Washington, DC: American Psychological Association.

Henwood, K. S., Chou, S., & Browne, K. D. (2015). A systematic review and meta-analysis on the effectiveness of CBT informed anger management. *Aggression and Violent Behaviour, 25*(Part B), 280–292. https://doi.org.ezproxy.bolton.ac.uk/10.1016/j.avb.2015.09.011.

Ho, B. P. V., Carter, M., & Stephenson, J. (2010). Anger management using a cognitive-behavioural approach for children with special education needs: A literature review and meta-analysis. *International Journal of Disability, Development and Education, 57*(3), 245–265. https://doi.org.ezproxy.bolton.ac.uk/10.1080/1034912X.2010.501169.

Kelly, S. (2014). Cognitive behavioural therapy with African Americans. In P. A. Hays, & G. Y. Iwamasa (Eds.), *Culturally-responsive cognitive behavioral therapy: Assessment, practice and supervision* (pp. 47–72). Washington, DC: American Psychological Association.

Kendall, P. C., Peterman, J. S., & Cummings, C. M. (2015). Cognitive-behavioural therapy, behavioural therapy and related treatments in children. In A. Thapar, D. Pine, J. Leckman, S. Scott, M. Snowling, & E. Taylor (Eds.), *Rutter's child and adolescents Psychiatry* (pp. 496–505). New York, NY: John Wiley & Sons.

Kennerley, H., Westbrook, D., & Kirk, J. (2016). *An introduction to cognitive behaviour therapy: Skills and applications*. Los Angeles, CA: Sage.

Naeem, F. (2011). *Adaptation of cognitive behavior therapy for depression in Pakistan: A methodology for adapting cognitive behavior therapy in non-Western cultures*. Berlin, Germany: LAP LAMBERT Academic Publishing.

Naeem, F., Gobbi, M., Ayub, M., & Kingdon, D. (2010). Psychologists experience of cognitive behaviour therapy in a developing country: A qualitative study from Pakistan. *International Journal of Mental Health Systems, 4*. https://doi.org.ezproxy.bolton.ac.uk/10.1186/1752-4458-4-2.

Nelson, W. M., & Finch, A. J. (2000). *Children's inventory of anger-manual*. Los Angeles, CA: Western Psychological Services.

Nelson, W. M., & Schultz, J. R. (2009). Managing anger and aggression in students with externalizing behaviour problems: Focus on exemplary programs. In M. Mayer, R. Acker, J. Lochman, & F. Gresham (Eds.), *Cognitive behavioral interventions for emotional and behavioral disorders: School-based practice* (pp. 143–170). New York, NY: The Guildford Press.

Puskar, K. R., Ren, D., & McFadden, T. (2015). Testing the 'Teaching kids to cope with anger' youth anger intervention program in a rural school-based sample. *Issues in Mental Health Nursing, 36*(3), 200–208. https://doi.org.ezproxy.bolton.ac.uk/10.3109/01612840.2014.969390.

Rathod, S., & Kingdon, D. (2009). Cognitive behaviour therapy across cultures. *Psychiatry, 8*(9), 370–371. Retrieved from: http://www.sciencedirect.com.ezproxy.bolton.ac.uk/science/article/pii/S1476179309001219.

Saini, M. (2009). A meta-analysis of the psychological treatment of anger: Developing guidelines for evidence-based practice. *Journal of American Academy of Psychiatry and the Law, 34*, 473–488.

Siddle, R., Jones, F., & Awenat, F. (2003). Group cognitive behaviour therapy for anger: A pilot study. *Behavioural and Cognitive Psychotherapy, 31*(1), 69–83.

Simmons, J., & Griffiths, R. (2014). *Cognitive behaviour therapy for beginners* (2nd ed.). Los Angeles, CA: Sage.

Stringaris, A. (2015). Emotion, emotion regulation and emotional disorders: Conceptual issues for clinicians and neuroscientists. In A. Thapar, D. Pine, J. Leckman, S. Scott, M. Snowling, & E. Taylor (Eds.), *Rutter's child and adolescents psychiatry* (pp. 53–64). New York, NY: John Wiley & Sons.

Sukhodolsky, D. G., Kassinove, H., & Gorman, B. S. (2004). Cognitive-behavioral therapy for anger in children and adolescents: A meta-analysis. *Aggression and Violent Behaviour, 9*(3), 247–269. https://doi.org.ezproxy.bolton.ac.uk/10.1016/j.avb.2003.08.005.

Tafrate, R. C. (1995). Evaluation of treatment strategies for adult anger disorders. In H. Kassinove (Ed.), *Anger disorders: Definition, diagnosis, and treatment* (pp. 109–128). Philadelphia, PA: Taylor & Francis.

Tanaka-Matsumi, J. (1995). Cross-cultural perspectives on anger. In H. Kassinove (Ed.), *Anger disorders: Definition, diagnosis, and treatment* (pp. 81–89). Philadelphia, PA: Taylor & Francis.