



# A systematic review and meta-analysis on the effectiveness of CBT informed anger management



Kevin Sammut Henwood, Shihning Chou <sup>\*</sup>, Kevin D. Browne

Centre for Forensic and Family Psychology, Division of Psychiatry and Applied Psychology, School of Medicine, University of Nottingham, Floor B, Yang Fujia Building, Wollaton Road, Nottinghamshire, NG8 1BB, United Kingdom

## ARTICLE INFO

### Article history:

Received 20 April 2015  
 Received in revised form 10 August 2015  
 Accepted 23 September 2015  
 Available online 3 October 2015

### Keywords:

Anger management  
 Cognitive Behavioral Therapy  
 Systematic review  
 Meta-analysis  
 Violence  
 Violent recidivism

## ABSTRACT

This meta-analysis sought to investigate the effectiveness of CBT based anger management interventions on reducing recidivism amongst adult male offenders. Studies were selected after a bibliographic database search, a hand-search of references from similar studies and an electronic search on apposite Correctional websites. The outcome measures of interest were general and violent recidivism rates. These were considered to be evidence of long term behavioral change. Studies that included appropriate data were analysed using risk ratio analysis. The analysis of the effect of exposure to CBT based treatment on general recidivism showed an overall effect of 0.77, indicating a risk reduction of 23%, whereas the overall effect on violent recidivism was 0.72, indicating a risk reduction of 28%. The meta-analysis also explored the effects of treatment completion in comparison to attrition groups. The effects of treatment completion on general recidivism through risk ratios was 0.58, indicating a 42% risk reduction. For violent recidivism, the risk ratio was 0.44, indicating a 56% risk reduction. Subgroup analysis based on the treatment modality and the analysis of the risk of bias carried out on the selected studies was conducted to explore the significant heterogeneity noted in the results. Overall, anger management appeared to be effective in reducing the risk of recidivism, especially violent recidivism. Moderate-intensity anger management were associated with larger effect than the high-intensity correctional programs for violence reduction.

© 2015 Elsevier Ltd. All rights reserved.

## Contents

1.	Background . . . . .	281
2.	Previous systematic reviews . . . . .	281
3.	Objectives . . . . .	281
4.	Methods . . . . .	282
4.1.	Criteria for study inclusion . . . . .	282
4.2.	Search methods for identification of studies . . . . .	282
4.3.	Data collection and analysis . . . . .	282
4.4.	Data extraction . . . . .	282
4.5.	Assessment of risk of bias in included studies . . . . .	285
4.6.	Statistical analysis . . . . .	285
5.	Results . . . . .	285
5.1.	Characteristics of included studies . . . . .	285
5.2.	General characteristics . . . . .	285
5.3.	Intervention types . . . . .	285
5.4.	Outcome measures . . . . .	286
5.5.	Excluded studies . . . . .	286
5.6.	Risk of bias in included studies . . . . .	286
5.7.	Selection bias . . . . .	286
5.8.	Performance bias . . . . .	287
5.9.	Measurement bias . . . . .	287
5.10.	Attrition bias . . . . .	287

<sup>\*</sup> Corresponding author. Tel.: +44 115 8466623.  
 E-mail address: shihning.chou@nottingham.ac.uk (S. Chou).

5.11.	Reporting bias . . . . .	287
5.12.	Effects of interventions . . . . .	287
5.12.1.	Exposure to treatment . . . . .	287
5.13.	Treatment completion . . . . .	289
6.	Discussion . . . . .	290
6.1.	Difference between anger management and violence reduction program . . . . .	290
6.2.	Effect of treatment completion . . . . .	290
6.2.1.	Clinical heterogeneity . . . . .	290
6.2.2.	Methodological differences . . . . .	291
7.	Conclusions . . . . .	291
	Acknowledgements . . . . .	291
	References . . . . .	291

## 1. Background

The aim of this study was to explore whether CBT based anger management reduces recidivism amongst offender populations. The link between anger and offending behavior is not clearly understood. Anger does not always manifest itself in aggression, as it could help invigorate the person to take action against the object, person, or event causing the frustration. Also, not all aggressive acts necessitate anger. This instrumental form of aggression might be present in a number of violent offenders, explaining why some violent offenders were found to have no pathological or problematic levels of anger when assessed (Howells, 2004). Dysfunctional anger typically is more frequent, more intense, of longer duration and comprised of more adverse action schemas (Novaco, 2011). A recent study in a forensic setting (Gilbert, Daffern, Talevski, & Ogloff, 2013) noted that individuals with high trait anger were prone to activate aggressive behavioral scripts. Furthermore, they suggest that intensity, frequency and the duration of the anger problem were more salient than normative beliefs about violence and aggressive script rehearsal in determining future violence. Thus, anger and associated feelings like rage can be considered as precipitators to violent offending (Novaco, 2011) activating aggression related knowledge structures which justify aggression, reduce inhibitions to violence, and disabling cognitive reappraisal while also activating aggressive scripts. This might imply that anger dysfunction can be involved in recidivism.

Group-based cognitive behavioral programs seem to be the most widely used intervention for dysfunctional anger. Typically, such programs are brief and aim to increase the client's ability to control anger and limit arousal (Gilbert & Daffern, 2010). This is achieved by replacing the dysfunctional cognitions, inferences, and evaluations with anger inhibiting ones such as seeking alternative reality-based explanations for the antecedent events (Howells, 1998; Trower, Casey, & Dryden, 2008); addressing aggression related knowledge structures such as schemas and behavioral scripts (Gilbert & Daffern, 2010); imparting arousal reduction techniques are aimed at reducing the client's physiological state of readiness such as breathing and visualization (Novaco, 2011); and teaching behaviors that are functionally equivalent to their dysfunctional behavior (Deffenbacher, 2011).

## 2. Previous systematic reviews

A scoping search was carried out on five databases (CENTRAL, Campbell, Medline, PsychInfo and SCOPUS) and the Ministry of Justice website in February 2014. Six systematic reviews were published between 1995 and 2009, seeking to determine the effectiveness of psychological therapies and cognitive behavioral interventions specifically on problematic anger; Tafra (1995); Bowman Edmondson and Cohen Conger (1996); Beck and Fernandez (1998); Di Giuseppe and Tafra (2003); Del Vecchio and O'Leary (2004) and Saini (2009). They all reported mean treatment effects of between .70 and .76 on measures of anger. However, most of these reviews did not include offender

populations, as some focused exclusively on college students or clinical samples.

A further four systematic reviews focused specifically on offenders. Dowden and Andrews (2000) explored anger management and offending behavior and found significant positive treatment effect for programs focusing on anger management and relapse prevention had sizes in the offenders. Other programs such as those dealing only with antisocial attitudes also showed positive effect but the results were not significant. This systematic review did not examine risk of bias of the 35 included studies.

Lipsey, Landenberger, and Wilson (2007) systematic review analyzed the effects of CBT on offenders with anger management being one type of the interventions explored and found positive treatment effects. Moderator variables were also explored. For example, higher risk offenders fared significantly better and good quality program implementation was associated with greater treatment effect. This study, however, provided little information on the risk of bias of the included studies except to state that only 19 out of 58 studies included were randomized control trials (RCTs).

A review from the UK Ministry of Justice Research Series focused on the effectiveness of interventions in general for violent offenders and included studies that did not administer psychological interventions such as electronic monitoring. Jolliffe and Farrington (2007) concluded that despite violent offenders being more difficult to engage in therapy and having extensive offending histories, the overall results showed an 8–11% post-treatment reduction of general re-offending and a 7–8% reduction of violent re-offending. Jolliffe and Farrington's (2007) review also found evidence that the length of treatment was negatively correlated with re-offending rates. It should be noted that the effects were significantly smaller in good quality studies. This finding could not be explored further due to heterogeneity of their included studies. In fact, only one out of the 11 included studies was a random control trial.

Ross, Quayle, Newman, and Tansey's (2013) narrative review aimed at determining the effectiveness of psychological therapies on violent behavior. The participants included for analysis consisted of offenders but also included offenders with mental health issues. This narrative review included 10 studies, consisting of randomized controlled studies, controlled before and after studies and case series studies. Ross et al. (2013) concluded that most of the studies showed a reduction of aggressive behavior amongst those who had received psychological therapies. However, high levels of heterogeneity between their included studies may have confounded the overall conclusions of this narrative review. Jolliffe and Farrington (2007) and Ross et al. (2013) were the only 2 systematic reviews analyzed that used a quality analysis of the included studies but neither focused exclusively on anger.

## 3. Objectives

The aim of this systematic review was to assess the effectiveness of CBT informed interventions or anger management interventions on

Download English Version:

<https://daneshyari.com/en/article/94517>

Download Persian Version:

<https://daneshyari.com/article/94517>

[Daneshyari.com](https://daneshyari.com)