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Coping strategies used by adults with ADHD

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Abstract

The objective of the study was to identify coping strategies used by ADHD adults and evaluate the relationship between their coping strategies, cognitive deficits and antisocial personality problems. Participants were 44 clinical referrals for assessment of ADHD in adulthood and 34 healthy controls. ADHD adults were compared with a healthy control group on the Ways of Coping Scale. Secondly, the scores obtained on these measures were correlated with cognitive measures of impulsivity (Matching Familiar Figures) and attention (Continuous Performance Test), and a measure of pro-social behaviour (Gough Socialisation Scale). The ADHD group used maladaptive coping strategies (confrontative, escape-avoidance and less planful problem-solving) but they positively reappraised stressful situations. Only cognitive measures featured in the correlation of the ADHD group whereas both personality and cognitive factors were associated with the coping strategies of the controls. The way ADHD adults interact with the environment and cope with stressful situations is determined by their cognitive ability. Their ability to positively reappraise stressful situations may be an important protective factor. The relevance of the findings for clinical interventions is discussed.

Keywords: ADHD; Coping strategies; Personality; Impulsivity

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1. Introduction

It is becoming increasingly recognised that Attention Deficit Hyperactivity Disorder (ADHD) symptoms may persist into adult years and comorbidity has been reported, particularly anxiety, depression, personality problems, antisocial and aggressive behaviour and interpersonal relationship problems (Biederman, Newcorn, & Sprich, 1991; Young, 2000). Anxiety and low conscientiousness have been associated with high vulnerability to stress and poor coping (Vollrath & Torgersen, 2000). The many influences affecting how individuals cope with problems include personality characteristics (Vollrath & Torgersen, 2000); situational or role demands (Pearlin & Schooler, 1978) and cognitive appraisal or beliefs about personal control (Folkman, 1984; Folkman & Lazarus, 1980, 1985). Personality is likely to play an important role in how individuals experience and manage stress and in influencing the coping strategy chosen. This choice will be shaped to some extent by the individual's appraisal of the situation and the resources available to them.

The cognitive deficits of inattention and impulsivity may mean that ADHD individuals have limited resources to cope with stressful life events. They may lack adequate and reliable social support networks to draw on for advice. Their attention deficits may mean they are unable to cognitively reappraise challenging situations or draw on adaptive cognitive strategies to help, e.g. planful problem-solving, cognitive reframing and taking the perspective of others. Their impulsive tendencies may mean they respond to stressful events rapidly and spontaneously, e.g. aggressively and/or defensively. Individuals with comorbid anxiety problems may avoid adaptive coping by not acknowledging the problem or actively avoiding dealing with the problem. This may result in multiple presentations to adult services (Dalsgaard, Mortensen, Frydenberg, & Thomsen, 2002; Young, Toone, & Tyson, 2003).

The development of adaptive coping strategies is a central tenet of cognitive behavioural therapy and the identification of the use of maladaptive coping strategies is a priority in the cognitive behavioural assessment of psychological problems. Yet the coping strategies commonly employed by adults with ADHD have not been investigated, in spite of this being a useful and important target for psychological treatment.

The objective of this study was to evaluate the coping strategies of ADHD adults and investigate the relationship between their coping strategies, cognitive deficits and antisocial personality problems by comparing an ADHD symptomatic group with a healthy control group. Specific hypotheses were:

(1) The ADHD group would be significantly more impaired than normal controls on maladaptive coping strategies, i.e. confrontative, distancing and escape-avoidance.
(2) Positive correlations would be found for the ADHD group on cognitive measures of impulsivity and inattention and maladaptive coping strategies, e.g. confrontative, distancing, avoidance.
(3) Negative correlations would be found for the ADHD group on cognitive measures of impulsivity and inattention and adaptive coping strategies, e.g. self-controlling, seeking social support, accepting responsibility, planful problem-solving, positive reappraisal.
(4) There would be a negative correlation between pro-social behaviour (Gough Socialisation Scale) and maladaptive coping strategies (i.e. confrontative, distancing and escape-avoidance) for patients with ADHD.

2. Method

2.1. Participants

Two groups were compared. The ADHD group was drawn from referrals to the Maudsley Hospital Adult ADHD Clinic, London, UK.

2.1.1. ADHD Group

There were 44 adult ADHD patients, 35 male and 9 female, meeting the DSM-IV criteria for ADHD (28 combined type, 11 inattentive type, 5 hyperactive-impulsive type). Their mean age was 25.16 (SD = 7.46). Exclusion criteria included a history of learning disability, psychotic illness, significant brain damage, or individuals in remission of their childhood ADHD symptoms. All patients met the DSM-IV criteria for ADHD and the full ADHD assessment procedure adopted by the clinic is outlined in Young and Toone (2000). Briefly, all the patients underwent a comprehensive psychiatric evaluation including a semi-structured interview based on the DSM-IV criteria for ADHD. Each positive self-rating had to be endorsed by the assessor on the basis of supplementary questioning or other information (e.g. documentation). Whenever possible, a parent was also interviewed to establish whether there was a history of ADHD features during early childhood (i.e. before the age of 7). This judgement was based upon an unstructured interview although in addition, and in order to obtain a final positive rating, a score of 15 or more was required on the Conners' Global Index-Parent Scale [CGI-P] (Conners, 2000). For cases in which Conners' ratings were equivocal, a final positive rating was made if school reports and/or other childhood documentation provided evidence of hyperactivity and attentional difficulties. Parent interviews were conducted for 41 of the ADHD group and 28 of the normal controls.

2.1.2. Normal control group (NCG)

There were 34 healthy local community controls [''NCG''], 21 male and 13 female, recruited by advertisements in GP Health Centres. They had a mean age of 25.35 (SD = 5.98).

Participants for the groups were predominantly middle class young men. Social class was determined by father's occupation and defined by the Registrar-General's 1979 classification of occupations. There was no significant difference between groups for age ($t = 0.12$, df = 76, NS), social class ($t = 1.73$, df = 76, NS) and gender ($\chi^2 = 2.99$, df = 1, NS). The mean predicted Intelligence Quotients (IQ) derived from the National Adult Reading Test [NART] (Nelson, 1982; Nelson & Willison, 1991) was in the average range. The normal control group had significantly higher NART scores (mean IQ equivalent 103) compared with the ADHD group (mean IQ equivalent 95) ($t = 2.97$, df = 76, $p > 0.01$).

2.2. Measures

Ways of Coping Scale [*WCS*] (Lazarus & Folkman, 1984) is a 67 item measure in which people describe their coping responses in relation to the most stressful episode they have experienced in the past month. Ratings are made on a 4-point Likert scale (0 = does not use, to 3 = used a great deal). There are eight subscales relating to (1) confrontative coping, which describes aggressive efforts to alter the situation (e.g. stood my ground and fought for what I wanted); (2) distancing,

which describes efforts to detach oneself (e.g. went on as if nothing happened), (3) self-control, which describes efforts to regulate ones own feelings (e.g. I tried to keep my feelings to myself), (4) seeking social support, which describes efforts to seek information for support (e.g. talked to someone to find out more about the situation); (5) accepting responsibility, which acknowledges one's role in the problem (e.g. criticised or lectured myself); (6) escape-avoidance, which describes wishful thinking and behavioural efforts to escape or avoid the situation (e.g. wished that the situation would go away; avoided being with people in general); (7) planful problem-solving, which describes deliberate problem-focused efforts to alter the situation (e.g. I made a plan of action and followed it), (8) and positive reappraisal, which describes efforts to create positive meaning by focusing on personal growth (e.g. changed or grew as a person in a good way). Internal consistency coefficients for the subscales are good, with Cronbach's alpha averaging above 0.7.

The Gough Socialisation Scale [GSS] of the *California Psychological Inventory* (Gough, 1960; Megargee, 1972) was used to measure the extent to which the individual has internalised the values of society. The scale has been shown to be a valid measure of antisocial personality traits (Blackburn, 1993).

Continuous Performance Test [CPT] (Erlenmeyer-Kimling & Cornblatt, 1978) evaluating sustained vigilance in a signal detection task. The individual is required to sit in front of a video monitor attached to a microcomputer, on which pictures composed of a number and a simple shape are presented. Each stimulus picture is presented for one second with a 1.5 s interstimulus interval. The individual's task is to press the space bar on the computer keyboard whenever a picture appears that is identical to the preceding one. Altogether 192 stimuli are presented, among which there are 24 pairs of successively identical stimuli. Failures to identify (errors of omission or false negatives) were recorded.

Revised [*MFF-20*] *version of the Matching Familiar Figures Test* [MFF] (Cairnes & Cammock, 1978) of impulsiveness vs reflectiveness in cognitive style. ''Impulsiveness'' is represented by an enduring disposition to respond rapidly but incorrectly in a situation where there is uncertainty about which response is correct. Individuals are shown a set of very similar pictures differing only in points of detail; they also have a duplicate of one of those pictures presented by itself. The task is to match the single picture with the identical member of the initial set. Performance was scored according to the number of errors.

Procedure: The WOC questionnaire, Gough Socialisation Scale, CPT and MFF tests were administered prior to the psychiatric assessment of the clinical group.

3. Results

Analyses of independent sample means showed that the ADHD group used significantly more confrontative ($t = 3.89$, df = 64.4, $p > 0.001$), escape-avoidant ($t = 2.71$, df = 76, $p > 0.01$) and positive reappraisal ($t = 1.92$, df = 76, $p > 0.05$) coping strategies and significantly less planful problem-solving strategies ($t = 4.86$, df = 44.3, $p > 0.001$). There were no significant differences between groups in the use of distancing, self-controlling, seeking social support and accepting responsibility (Table 1).

Table 2 shows the correlations between the coping strategy scores and antisocial personality characteristics (Gough Socialisation Scale score), impulsivity (MFF error score) and attention

Table 1
Mean scores of coping strategies (standard deviation in brackets) for ADHD and Normal Control groups

	ADHD ($N = 44$)	Normal controls ($N = 34$)	T
Confrontative	0.14 (0.04)	0.09 (0.05)	3.89***
Distancing	0.12 (0.05)	0.12 (0.04)	0.62
Self-controlling	0.15 (0.05)	0.15 (0.05)	0.01
Seeking social support	0.12 (0.05)	0.15 (0.08)	1.53
Accept responsibility	0.13 (0.05)	0.15 (0.14)	1.09
Escape-avoidance	0.14 (0.06)	0.09 (0.11)	2.71**
Planful problem-solving	0.11 (0.04)	0.19 (0.09)	4.86***
Positive reappraisal	0.10 (0.05)	0.08 (0.05)	1.92*

One-tailed tests. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

Table 2
Pearson's correlations between socialisation, cognitive measures and coping strategies

	ADHD ($N = 44$)			Normal controls ($N = 28$–34)		
	GSS	MFF	CPT	GSS	MFF	CPT
Confrontative	0.17	−0.06	0.14	−0.28	0.40*	−0.16
Distancing	0.09	0.14	0.24	−0.19	−0.02	0.09
Self-controlling	0.15	−0.29*	0.05	0.01	−0.43*	−0.13
Seeking social support	0.03	−0.13	−0.33*	0.02	0.10	0.16
Accept responsibility	−0.22	−0.05	−0.18	0.01	0.24	−0.13
Escape-avoidance	−0.21	−0.14	0.17	−0.37*	0.38*	−0.04
Planful problem-solving	0.23	−0.01	−0.29*	0.68***	0.07	0.12
Positive reappraisal	−0.12	0.45**	0.03	0.05*	0.10	0.03

One-tailed tests. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

problems (CPT error score). Cognitive measures of impulsivity and attentional control featured in the correlations of the ADHD group whereas both personality and cognitive factors were associated with the coping strategies for the NCG. For the ADHD group, there was a significant positive correlation between the MFF error score (i.e. impulsivity) and positive reappraisal (>0.01 level) and a negative correlation between the MFF error score and self-controlling coping (>0.05 level). There were significant negative correlations between the CPT error score (i.e. inattention) and seeking social support, and planful problem-solving (both at >0.05 level). For the NCG, confrontative and escape-avoidance strategies significantly positively correlated with the MFF error score (i.e. impulsivity), and the self-controlling strategy negatively correlated with the MFF error score. With respect to the personality measure, the GSS score was negatively correlated with escape-avoidance and positively correlated with planful problem-solving.

4. Discussion

As hypothesised compared with the normal controls, the ADHD group favoured the use of maladaptive coping strategies especially confrontative, escape-avoidance and a lack of planful

problem-solving. Thus when faced with stressful situations they may respond by either aggressively confronting the situation or by employing avoidance strategies. Additionally, they lacked planful problem-solving, i.e. they lacked an ability to outline a plan of action and follow it. Thus they may be unable to think and plan ahead and, in response, become confrontational. Nevertheless, an unexpected outcome was that the ADHD group positively reappraised stressful situations, which is a constructive response, although this will clearly depend on the context of the situation.

With respect to the correlational analysis, many of the specific hypotheses were unsupported and this may be due to a lack of power because of the small sample size. Alternatively only specific components of coping may differentiate between the two groups. Only cognitive measures correlated with coping strategies employed by the ADHD group, whereas both cognitive and personality variables correlated with coping strategies used by the normal controls. In particular, attentional problems were negatively associated with seeking advice and support from others. Longstanding interpersonal relationship problems are consistently reported in people with ADHD (for a review see Young, 2000) and they may lack social networks to draw on. Perceived social support may result in stress-buffering effects that people with ADHD are unable to access. However an important limitation of the study is that coping strategies are based on self-report and participants may have been unwilling to admit to inadequate social support, loneliness and feelings of rejection.

The positive association between impulsivity and positive reappraisal suggests that people with ADHD regard impulsivity as a construct of growth. This positive reappraisal of current situations may mean they have the ability to reframe the problems they face in their lives which causes them to be resilient to disappointments. Thus, even in the face of stressful events and situations and in spite of the disadvantages they have from cognitive and social problems, they may have an ability to "bounce back". Thus for people with ADHD, the way they interact is associated with their cognitive ability, which may mean they continually assess, re-assess, compensate and adapt. This adaptive aspect of the syndrome may be expressed as creative and entrepreneurial personality characteristics.

In contrast, the adaptive coping employed by the normal controls is associated with both cognitive and personality factors (i.e. the Gough Socialisation Scale). In particular there is a striking relationship between prosocial behaviour for the controls and planful problem-solving. This moderately high correlation between socialisation and planning means the better socialised you are, the more an individual is able to utilise planful problem-solving strategies. Individuals with ADHD are reported to have poor prosocial functioning on the Gough Socialisation Scale (Young & Gudjonsson, submitted for publication) and this most likely impairs their ability to utilise planful coping. A planning impairment has been linked to impulsive responding shown by shorter thinking times and increased errors with more complex problems in an experimental task and these impairments may translate into deficits in everyday planning ability (Young, Morris, Toone, & Tyson, submitted for publication).

The ability to respond in a flexible fashion rather than rigidly employing a limited set of coping techniques is important for adaptive functioning (Turk, Sobel, Follick, & Youkilis, 1980). A lack of flexibility in the use of coping styles and/or the persistent use of one coping style may not be functional. In everyday situations individuals require an adaptive repertoire of coping strategies to apply to varying contextual demands and stressful situations. When individuals are unable

to access and/or utilise a variety of contextually appropriate coping strategies, then this is an important target for intervention. ADHD adults have significant anxiety problems (Young & Gudjonsson, submitted for publication; Young et al., 2003). Significant anxiety symptoms may interfere with their ability to access more positive coping techniques for which a simple coping skills intervention such as relaxation training may prove effective. Nevertheless it is evident from the findings that people with ADHD have specific deficits in coping and they need to learn a comprehensive set of positive coping skills to apply in stressful situations, e.g. self-monitoring of maladaptive statements and behaviours and problem-solving. Young (1999, 2002) provides a detailed description of appropriate cognitive behavioural techniques for these problems.

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