

Creativity and Mood: Exploring the effectiveness of creative thinking in reducing anxiety

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INTRODUCTION

Throughout history, many of the most eminent creative geniuses have been well known for their suspected or diagnosed mood disorders.

Mood and Creativity

One characteristic posited to reflect creative potential is divergent thinking – a cognitive process used to generate several possible solutions to a single problem. Previous creativity studies have reported high divergent thinking ability in individuals with bipolar spectrum disorders (Santosa et al., 2007), individuals with hypomanic symptomatology (Furnham et al., 2008), and individuals with depressive symptomatology (Papworth et al., 2008).

Anxiety and Creativity

Studies have also reported reduced anxiety in individuals participating in art therapy and writing therapy (Baikie & Wilhelm, 2005; Curry & Kasser, 2005). However, little is known about what mechanisms are responsible for these effects. Although, recent neural imaging studies have demonstrated functional connectivity between the dorsolateral prefrontal cortex (a key structure in divergent thinking) and the amygdalae (key structures in emotional response) both during creative thinking (Dietrich, 2004) and emotional regulation (Banks et al., 2007).

PURPOSE

To examine the relationship between creativity, mood, and anxiety.

HYPOTHESES

We propose two possible, related mechanisms for the reported anxiety reducing effects of art therapy and writing therapy.

1. Creative tasks may help attenuate levels of anxiety by shifting the focus of the mind from critical introspection of self to divergent thinking.
2. The neural processes involved in creative thinking may have direct effects on the emotion regulation of the amygdalae.

Thus, we predict the following:

- Divergent thinking ability of individuals with a mood disorder (MD) differs significantly from a comparison (c) group of individuals without a mood disorder.
- Divergent thinking will reduce anxiety.
- The degree of effectiveness of divergent thinking on anxiety will be greater in individuals with mood disorder than those without mood disorder.
- The degree of effectiveness of divergent thinking on anxiety will be greater for those individuals who score higher in divergent thinking (more creative).

METHOD

Participants

Sixty or more adults of all ages will participate in the study (MD \geq 30, C \geq 30).

Procedure

Prior to creativity testing participants will undergo an anxiety assessment to establish a baseline anxiety score. Following creativity testing anxiety will be assessed a second time to determine any differences in anxiety levels that may have resulted from thinking creatively.

Measures

Divergent Thinking

Torrance Tests of Creative Thinking (Torrance, 1966) to assess divergent thinking ability. The Torrance Tests consist of a verbal test that measures fluency, flexibility, and originality, and a figural test that measures fluency, originality, elaboration, abstractness of titles, and resistance to premature closure. Individual scores are used in combination to determine an overall divergent thinking score.

Anxiety

Future Anxiety Scale (Zaleski, 1996) to assess anxiety level. The Future Anxiety Scale is a 29-item questionnaire using a 7-point Likert scale.

Depression

Major Depression Inventory (Bech et al., 2001) to identify depressive disorders. The Major Depression Inventory is a 10-item questionnaire using a 6-point Likert scale.

Bipolar

Bipolar Spectrum Diagnostic Scale (Ghaemi, 2010) to identify bipolar spectrum disorders. The Bipolar Spectrum Diagnostic Scale is a 19-item self-report diagnostic tool.

Hypomania

Hypomanic Personality Scale (Eckblad & Chapman, 1986) to identify hypomanic symptomatology. The Hypomanic Personality Scale is a 48-item true or false questionnaire.

DATA ANALYSIS

Mood and Creativity

Two-tailed t-test to measure the difference in mean divergent thinking score between the Mood Disorder Group and the Control Group. Point-biserial correlation test to measure the correlation between divergent thinking and mood disorder.

Anxiety

Two-tailed t-test to measure the difference in mean anxiety score between the pretest and the posttest for the entire sample.

Anxiety and Mood

Two-tailed t-test to compare the difference in pretest-posttest mean anxiety scores for the Mood Disorder Group with the difference in pretest-posttest mean anxiety scores for the Control Group.

Anxiety and Creativity

Regression analysis to measure the relationship between divergent thinking score and anxiety gain score.

SIGNIFICANCE OF PROJECT

- Divergent thinking may have anxiety-reducing effects.
- There may be potential for new forms of creativity therapies that involve divergent thinking.

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