# Deconstructing Anxiety in People with Compulsive Hair-pulling Deepti Sood QAC Summer 2009 Advisor: Anna Shusterman

## INTRODUCTION

Trichotillomania (TTM) is a disorder classified by compulsive hair-pulling. Its relationship to anxiety is not clearly understood. For this reason, we developed the Comprehensive Survey on TTM which includes several anxiety measures: Mood and Anxiety Symptom Questionnaire (MASQ), Perceived Stress Scale (PSS), Penn State Worry Questionnaire (PSWQ), Acceptance and Action Questionnaire (AAQ), and a new questionnaire measuring perfectionism (PERF). This project explored the relationship between TTM and anxiety based on self-reported scores from these surveys.

Part I involved an analysis of MASQ; the hypothesis was that pullers identified differently with general negativity items (e.g. felt sad), anxious arousal items (e.g. hands were shaky), and anhedonia items (e.g. felt really bored). This was found to be true, with pullers identifying more strongly with GN items.

Part II pools information from PSS, PSWQ, AAQ, and PERF to test if pullers score differently across self-efficacy, thought-intrusion, and worry items when compared to controls. Results confirm this hypothesis with pullers scoring significantly lower in self-efficacy and higher on worry and thought-intrusion. These findings illustrate the nuances within anxiety as related to TTM, and suggest that different types of anxiety must be accounted for within TTM phenomenology.

# **MEASURES**

- •Comprehensive Survey on TTM (CST): a new, large scale survey including several different measures. Two versions; web-based. TTM N = 1,162; control N = 175.
- •Mood and Anxiety Symptom Questionnaire (MASQ): a tripartite measure that divides anxiety into anhedonia, general negativity, and anxious arousal. Scored on a 5-point Likert scale with 1 indicating "almost always". Cronbach's alpha=.93.
- •Perceived Stress Scale (PSS): measures the extent to which individuals view life situations as distressing. 0-4 likert scale with 0 indicating rarely occurring. Cronbach's alpha=.80.
- •Penn State Worry Questionnaire (PSWQ): measures amount of worrying; 5 point likert scale 1 indicating "not at all typical." Cronbach's alpha=.94.
- •Acceptance and Action Questionnaire (AAQ): focuses on experimental avoidance. 1-7 point likert scale with 1 indicating "never true." Cronbach's alpha=.70.
- •Perfectionism scale (PERF): a new scale measuring perfectionism; scored on a 1-5 point likert scale with 1 indicating low agreement. Cronbach's alpha=.86.

#### **PART I**

Is there a significant difference in item scores among general negativity, anxious arousal, and anhedonia?

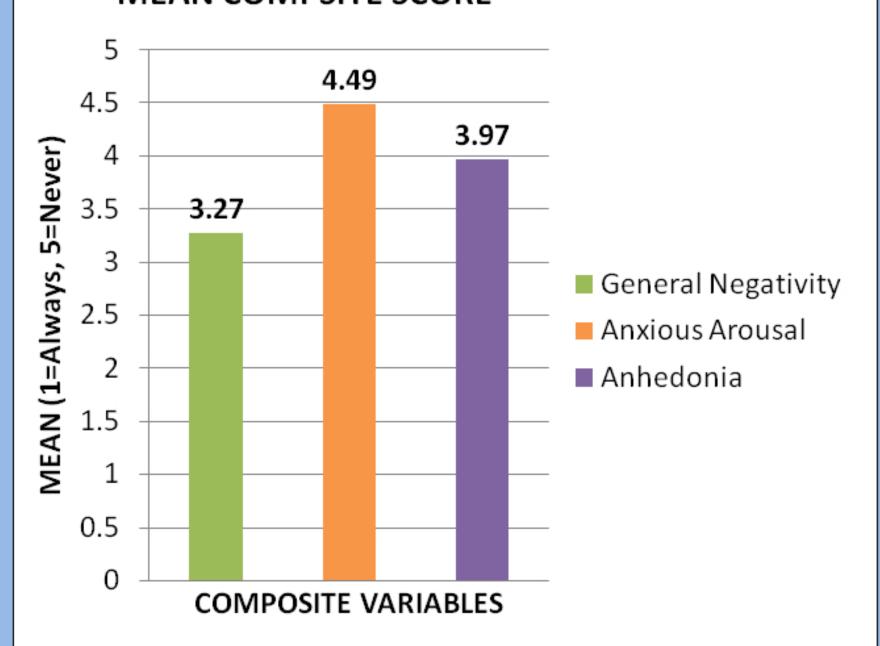
Over the past year, I had "this feeling" \_\_\_\_of the time that I pulled my hair.

#### **Example Questions**

GN: "felt sad"

AA: "had an upset stomach"
AN (neg): "felt sluggish or tired"
AN (pos): "felt cheerful"

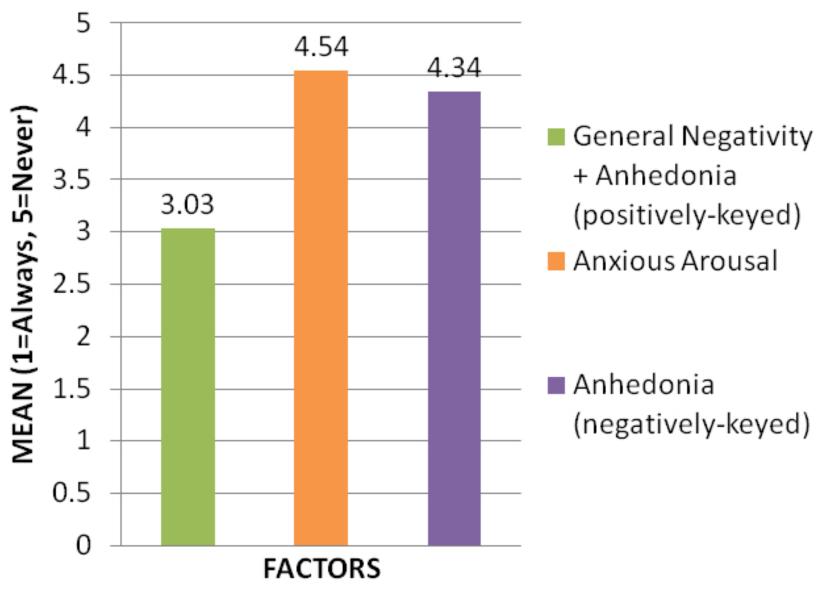
#### MEAN COMPSITE SCORE



•Significant differences among the variables F(2)=1184, p=.000

Because distinctions among GN, AA, and AN were made *a priori*, and due to a problem with the negatively-keyed anhedonia questions, a factor analysis was done to see if GN, AA, and AN were true clusters. The analysis grouped AN positively-keyed with GN, while separating AA and AN negatively-keyed as distinct categories. Cronbach's alpha =.95 indicated excellent fit for the factor loadings.

## COMPOSITE FACTOR MEANS



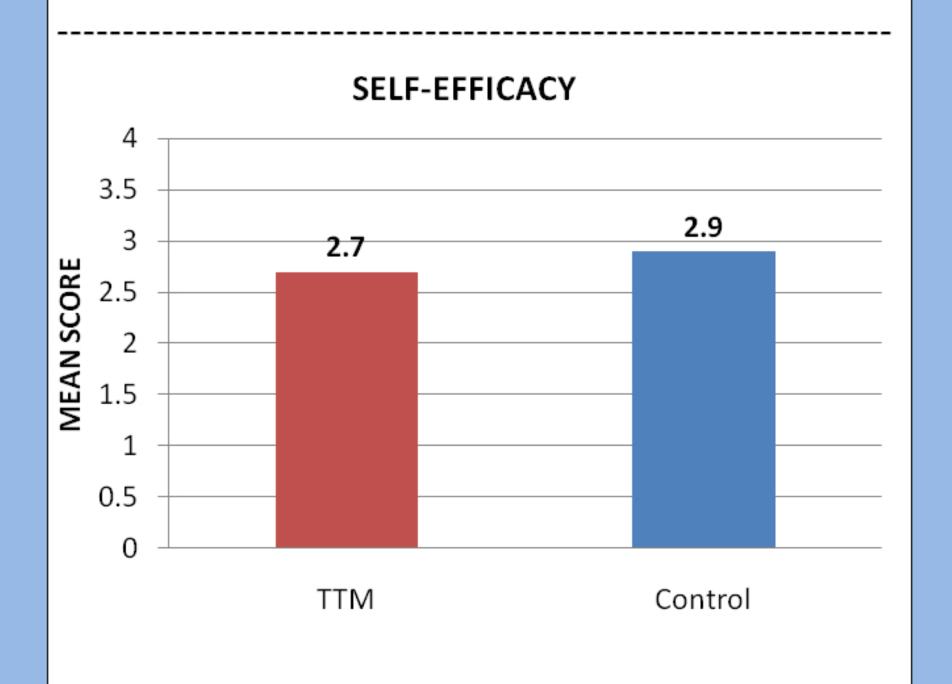
•Significant differences among the variables F(2)=312, p=.000

CONCLUSION: Individuals with TTM report a significant association between pulling and feelings of general negativity. By contrast, neither anxious arousal nor anhedonia are strongly associated with pulling.

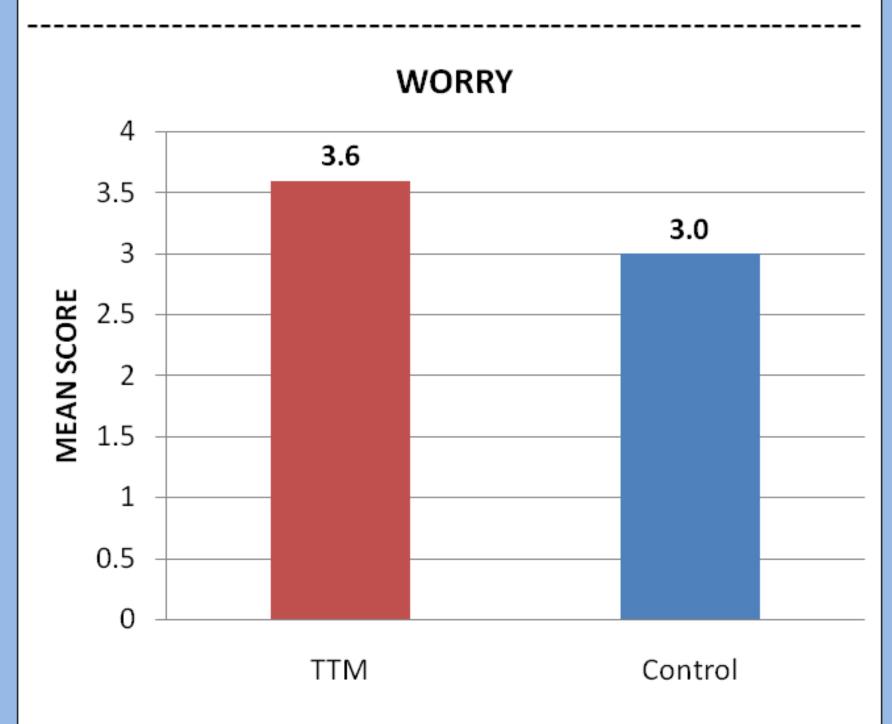
# PART II

Is there a difference among selfefficacy, thought-intrusion, and worry between pullers and non-pullers?

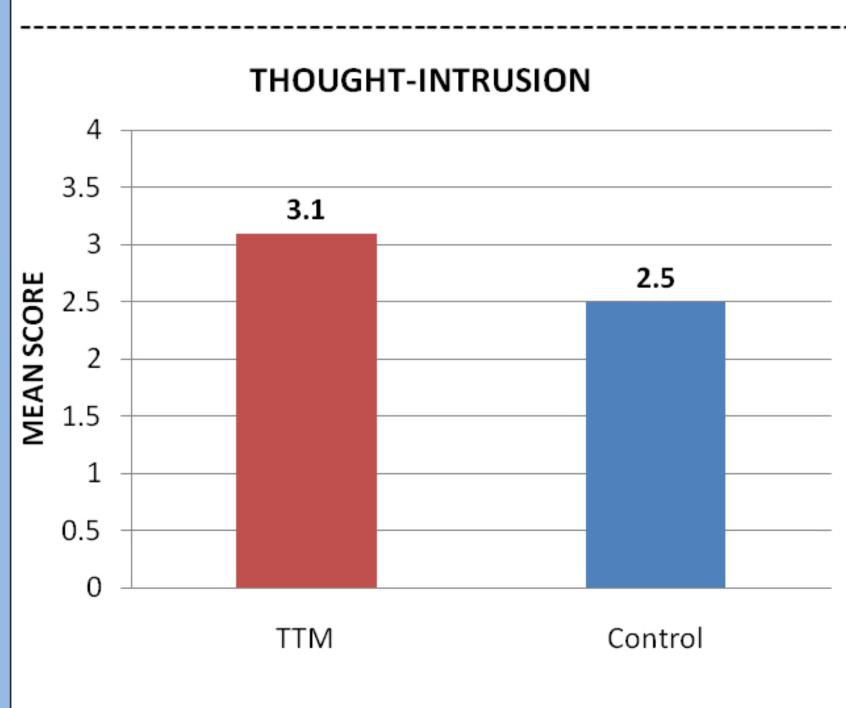
An exploratory factor analysis on the pooled variables from PSS, PSWQ, AAQ, and PERF determined three main factors: self-efficacy, thought-intrusion, and worry. Cronbach's alpha = .80 indicated a good fit.



t(241) = -7.28 p = .000



t(241)=9.01, p=.000



conclusion: Pullers score significantly higher than controls on thought-intrusion and worry, and significantly lower on self-efficacy.

t (234) =8.35, p=.000.

### DISCUSSION

#### Part I

- Pullers had little identification with anxious arousal as related to pulling
- Pullers had high identification with general negativity as related to pulling
- •Though it seems that anhedonia is linked to general negativity, because respondents seemed to have a hard time interpreting the reverse-keyed AN items, it is difficult to draw strong conclusions about this variable
- •Rather than linking TTM to anxiety in general, attention must be paid to differences within anxiety in their relation to pulling

#### Part II

- Pullers scored significantly higher on thoughtintrusion and worry items than controls
   Pullers scored significantly lower on self-
- Pullers scored significantly lower on selfefficacy items
- •Although all questionnaires were found to be significantly different between pullers and controls, results indicate that effect sizes were

Anxiety is *not* a monolithic construct. Certain components of anxiety (anxious arousal, anhedonia, self-efficacy) are relatively less important to understanding TTM phenomenology. By contrast general negativity, thought-intrusion, and worry are relatively more important to TTM phenomenology.

# **FUTURE DIRECTIONS**

- Analyze the connection of TTM to global chronic anxiety and acute anxiety
  Further investigate the link between anhedonia and TTM using other measures with only positively-keyed questions
- •Explore the implication of these findings, especially the centrality of general negativity, for TTM outreach and treatment

## REFERENCES

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