

# Emotional Control and Trichotillomania: Subtypes and Phenomenology

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## Background

Trichotillomania is a compulsive hair-pulling disorder, with prevalence estimated at approximately 1-3% of the population. This project explored emotional regulation in the disorder using data from the Comprehensive Survey on Trichotillomania.

## Methods

Self-report data were collected from an internet-based survey.

### Affective Regulation:

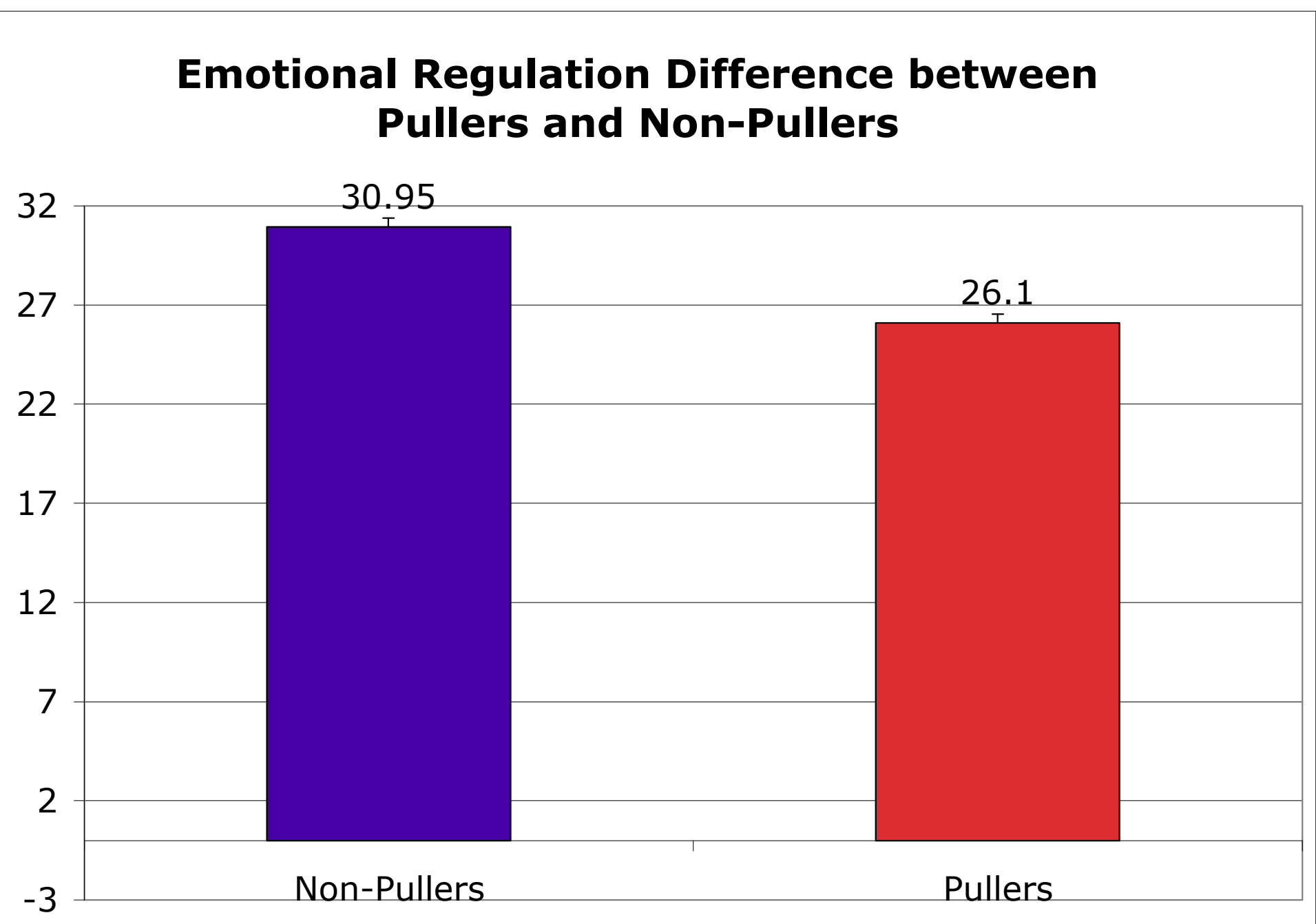
- Measure addresses ability to control emotions.
- Instrument had not previously been validated.
- Instruction reads: “Below you will see a list of moods. Please check the circle that indicates your ability to control each of these moods. How easily can you ‘snap out of it?’”
- 5-point scale
- Cronbach’s alpha of .83, indicating excellent internal validity for this instrument.

**Hair-pulling Behavior:** Previously validated Massachusetts General Hospital Hair-pulling-Scale (MGH-HPS).

**Participants:** N=1330

Characteristic	Full Sample of Pullers N=1155	LOW N= 163	HIGH N=143	Non-pullers N=175
<b>Gender, % (N)</b>				
Female	92.8 (1074)	90.8 (148)	98.6 (138)	84.6 (148)
Male	7.2 (83)	9.2 (15)	1.4 (2)	15.4 (27)
<b>Age, y</b>				
Mean (SD)	32.98 (10.891)	36.91 (12.528)	33.71 (9.854)	34.68 (11.916)
Range	8 to 94	8 to 94	18-56	18-67
<b>Ethnicity, % (N)</b>				
African-American	2.6 (30)	2.5 (4)	3.6 (5)	0.6 (1)
Asian	2.3 (26)	1.8 (3)	2.9 (4)	4.7 (8)
Hispanic/Latin	3.2 (37)	2.5 (4)	3.6 (5)	2.9 (5)
White	86.8 (1002)	89.0 (145)	82.1 (115)	89.5 (154)
Other	5.2 (60)	4.3 (7)	7.9 (11)	2.3 (4)
<b>Annual income, % (N)</b>				
Less than \$15,000	27.0 (229)	19.5 (31)	26.9 (36)	24.6 (42)
\$15,000 to \$30,000	19.6 (217)	17.0 (27)	23.1 (31)	17.5 (30)
\$30,000 to \$60,000	30.1 (334)	33.3 (53)	27.6 (37)	29.8 (51)
More than \$60,000	23.3 (258)	30.2 (48)	22.4 (30)	28.1 (48)
<b>MGH-HS Total</b>				
Mean (SD)	16.507 (5.548)		24.532 (1.447)	N/A

## Do people with trichotillomania experience greater difficulty “snapping out” of emotional states?



There is a significant difference in the levels of emotional regulation,  $t(1300) = -10.021$ ,  $p < .001$ .

### CONCLUSION:

**Hair-pullers self-report a somewhat lower ability to regulate emotions.**

## Are distinct sub-types identifiable based on trigger emotions?

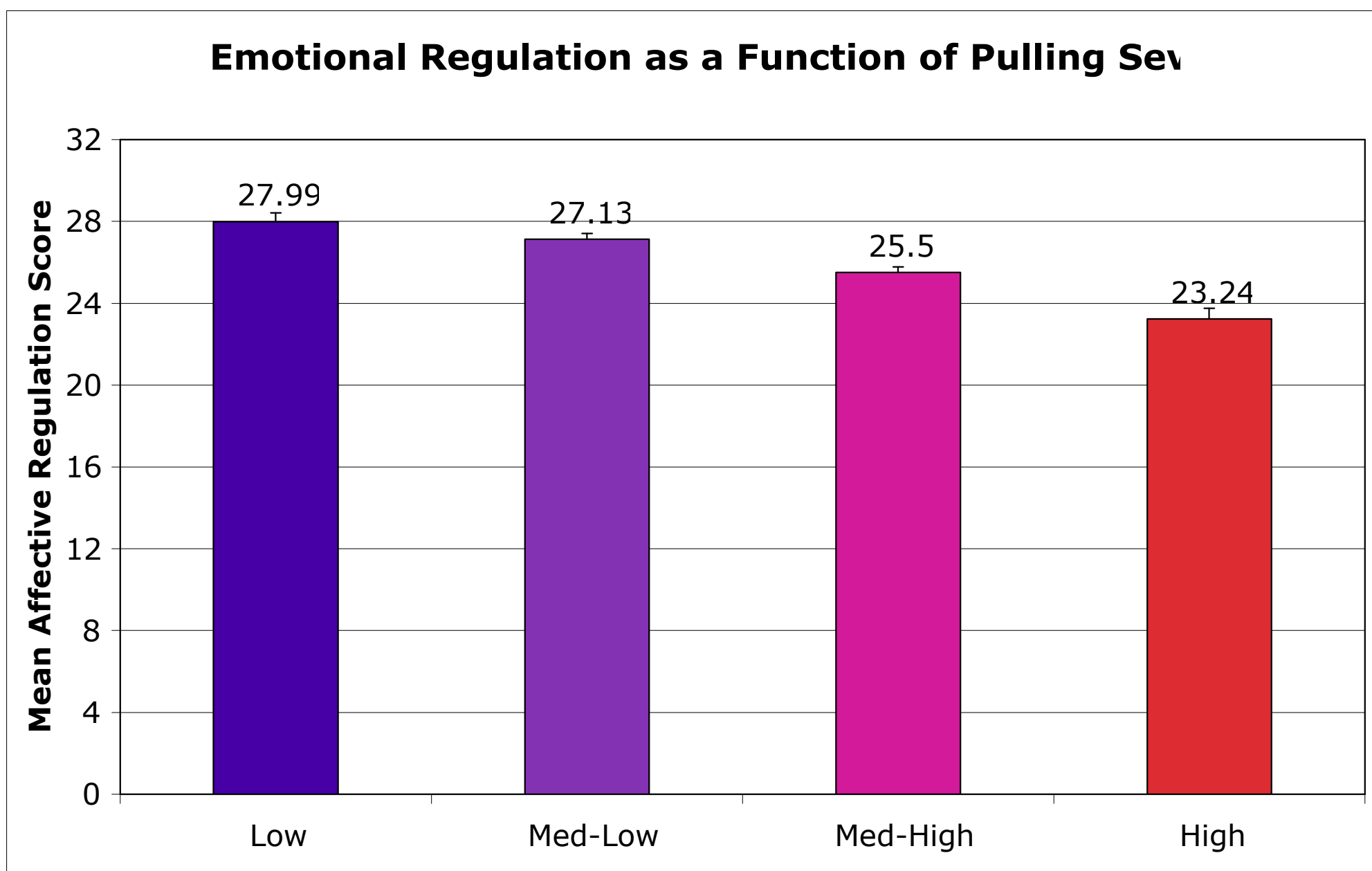
**Method:** Cluster analysis was performed to identify sub-types of similar cases based on emotional hair-pulling cues. Four clusters were created, with various trigger emotions highlighted as prominent cues for that group.

Cluster 1	Cluster 2	Cluster 3	Cluster 4
Boredom Guilt	Boredom Anxiety Tension	Boredom Anxiety Tension Guilt	Boredom Anxiety Tension Guilt Sadness Irritability Anger

### CONCLUSION:

**We expected to find clusters based on the relative importance of different emotional cues for triggering hair-pulling. Instead, we found that clusters differed by the number of emotions that trigger hair-pulling.**

## Does difficulty with emotional control predict severity of the disorder?



There is a significant effect of severity group on overall AR score,  $F(3,1104) = 22.513$ ,  $p < .001$ .

We also found a significant correlation between AR-global and MGH-HPS,  $r = -.26$ ,  $p < .001$ .

### CONCLUSION:

**Higher severity hair-pullers self-report greater difficulty with affective regulation.**

## Does difficulty regulating an emotion predict whether that emotion triggers hair-pulling?

**Method:** A two-step regression quantified the link between a person’s ability to regulate a specific emotion and that particular emotion’s prevalence in initiating hair-pulling behavior. After controlling for general ability to regulate other emotions, we measured the relationship between regulation of an emotion and the extent to which that emotion triggered pulling.

Emotion	$\beta$ - coefficient	Significance	Emotion	$\beta$ - coefficient	Significance
Shame	-.427	<.001	Indifferent	-.268	<.001
Anxiety	-.360	<.001			
Boredom	-.360	<.001	Guilt	-.251	<.001
Tension	-.281	<.001	Angry	-.195	<.001
Sad	-.291	<.001	Irritable	-.155	<.001

### CONCLUSION:

**There is a specific and unique relationship between emotions that are difficult to regulate and emotions that trigger hair-pulling, even after controlling for general affective regulation.**

## Summary of Results:

- People with the disorder endorse greater difficulty regulating emotions.
- General ability to regulate emotions is correlated with the severity of hair-pulling.
- Distinct sub-types are identifiable. Clusters are based on the number of emotions that serve as hair-pulling cues.
- Difficulty regulating an emotion may influence that emotion’s role as a hair-pulling trigger, but does not fully explain the phenomenology behind hair-pulling cues.

## Implications and next steps:

- Emotional control is a useful measure and unitary construct.
- Regulation is related to trichotillomania:
  - Pullers have greater difficulty than non-pullers.
  - Pullers with greater severity of the disorder have greater difficulty.
- The correlation between severity of the disorder and affective regulation is moderate.
  - It is an important piece, but not a complete explanation.

## Acknowledgements

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## References

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