

Food Addiction in Children

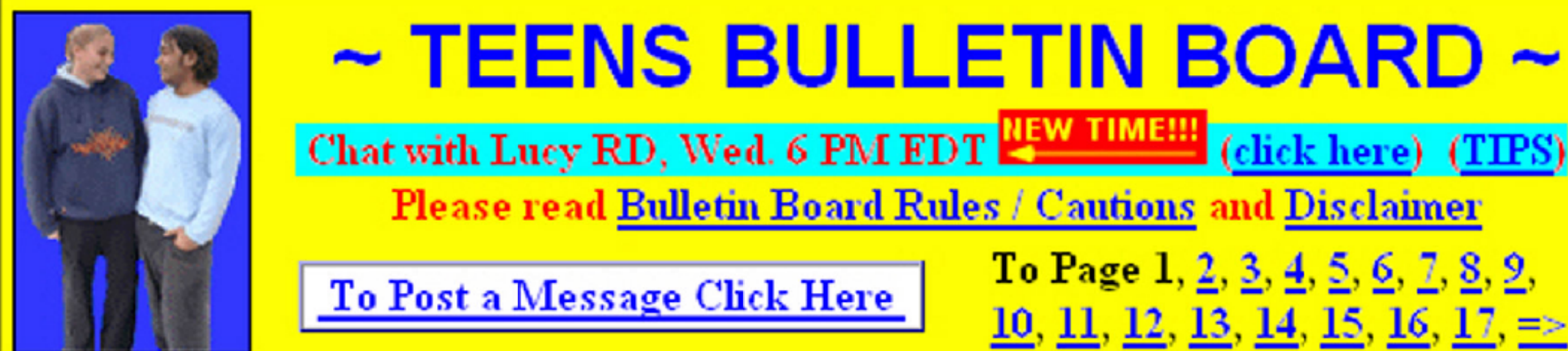
Robert A. Pretlow, MD, MSEE, FAAP (email: director@weigh2rock.com)

BACKGROUND

In December 1999 an interactive, open-access website was launched to help overweight children. Up to 100,000 kids per month use the site, from all over the world. Web anonymity allows overweight kids to be stunningly honest. It was assumed that providing information on healthy eating, portion control, and exercise, in conjunction with online community support, would enable kids using the site to attain and maintain healthy weights. It soon became evident that this approach was grossly inadequate. Something else was defeating their efforts.

MATERIALS AND METHODS

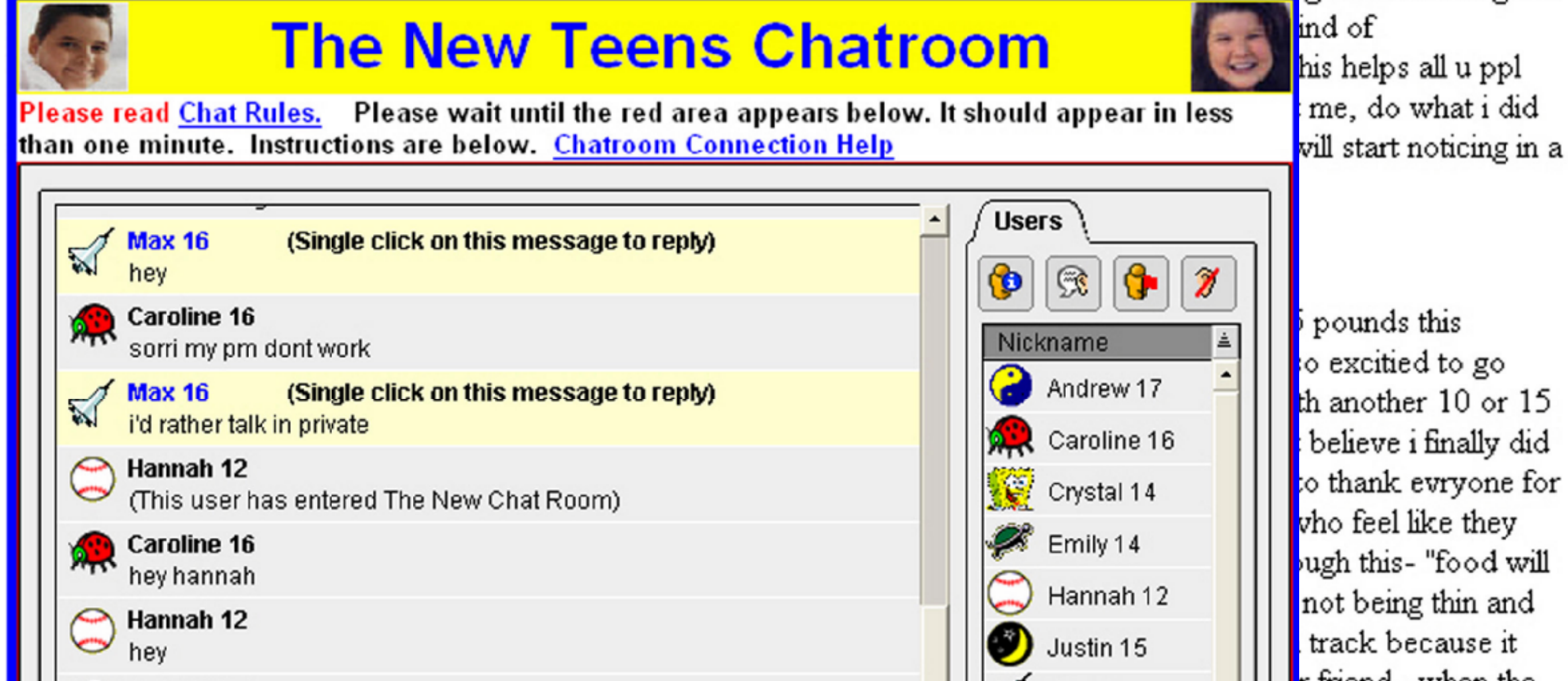
An ongoing, prospective, qualitative analysis of **134,498** bulletin board and chatroom messages was carried out from June 2000 to the present. The goal was to elucidate a pattern(s) as to the cause(s) of these kids' overeating and overweight. Example boards/chats are below:



From Dana , Age 13.5 - 10/4/06 - IP# 65.6.234.xxx Click here to reply
Ht. 5'5, Wt. 225 - I am so tired of being overweight. I have read all of yalls stories and I feel so motavated, but when it comes time to lose the weight I can't do it. I get picked on 24/7 and i am tired of it. Can someone please help me, give me some tips or a website, and I need some exercises that yall do!! Please helpppppppppp meeee



From mercedes, Age 17, female - 9/7/06 - IP# 142.167.139.xxx
Ht. 5'5, Wt. before- 205, now- 145 lb. - whats up every1...i came to this site like a few years ago wanting to lose weight really bad, but just never had the will power in doing so. so last year when i was 16 i decided that it was time to lose weight...so all i did was eat my breakfast,dinner,supper in smaller portions with water with every meal and i walked about 4 times a week for like 40 mins,and never ate after 8 oclock...i was 205 lbs and now i am 145 lbs...so i lost 60 lbs in 7 months...i know it may be hard but i also tried to not eat junk food while i was on my diet and sumtimes i did but i learned that its ok to have that piece of cake on ur holiday and stuff. just dont make it a habit of always eating it. cuz it aint good



RESULTS

The level of human misery expressed in these kids' messages is appalling.

Most hate the way they look:

Age 17, 5'4", 245 lb., female - "I ruined my body and stretched out my skin... i hate to look in the mirror..."

They endure teasing and resultant isolation:

Age 16, 5'6", 213 lb., female - "the worst thing about being overweight are the jokes..."

They endure physical limitations:

Age 19, 5'9", 350 lb., female - "... I am unable to ride the rides at the amusement park..."

Their thighs rub together and chafe:

Age 15, 5'4", 164 lb., female - "i really really want a gap between my thighs so they dont rub..."

Clothing is hard to find:

Age 16, 5'9", 320 lb., female - "Nothing 'cool' fits me, it sucks!!! "

Dating is difficult:

Age 17, 5'2", 200 lb., female - "i've got a new boyfriend.. i think he will break up with me because of my flab"

They require special desks at school:

Age 12 - "i have 2 have a special desk. my nicknames are hippo..."

The degree to which these kids struggle to lose weight is staggering.

Age 15, 5'4", 200 lb., female - "i've tried so hard to say no to food.. but i just cant for some reason"

Age 10, 4'11", 179 lb., female - "i ate to much today i hate myself cry cry cry cry cry cry cry"

Many of the kids say that their eating is out of control:

Age 17, 5'2", 240 lb., female - "i eat too dam much i don't know how to control it"

Age 17, 5'6", 190 lb., female - "... Even when i tell myself no i will still go into the frige..."

They struggle to resist urges to eat pleasurable foods, in spite of full awareness of the dreadful effects of weight gain:

Age 18, 5'7", 320 lb., female - "I am a sucker for candy, ice cream, pop and cookies... i'm tired of being the 'fat girl out'."

'Junk food' is especially difficult for these kids to resist:

Age 14, 5', 150 lb., male - "i cant stop eating junk food... it's totally killing me"

Puzzle: Why do these kids struggle to such a degree to lose weight and maintain it, even though they hate being fat?

Comfort Eating: 32% of the kids explicitly say that they turn to pleasurable food when depressed, sad, rejected, hurt, disappointed, lonely, or fatigued.

Age 14, 5'7", 280 lb., female - "I eat to make myself feel better...its coping"

Age 13, 5'7", 223 lb., female - "Everyone I know practically soothes emotions with food! "

Age 12, 5'1", 108 lb., female - "Junk food=comfort food. food listens to our problems. its like a therapist"

The kids say they use food to numb unpleasant feelings:

Age 17, 5'4", 184 lb., female - "I want/need to lose weight... yet ill just keep eating those choc bars to numb whatever feelings i have at that moment."

Age 18, 5'4", 180 lb., female - "I am an emotional eater so i eat to avoid what im feeling"

Paradoxically, the kids don't like that they comfort eat, but they don't know how to stop.

Age 13, 5' 6" , 177lb., female - "I hate when I comfort eat... I DONT KNOW HOW TO STOP ITS KILLING ME."

Stress Eating: Eating when stressed out is the second reason the kids say that they overeat. This appears to be 'displacement activity,' similar to nail biting.

Age 14, 5'4", 189 lb., female - "i eat when i am stressed out... its soo hard for me"

Age 13, 5'2", 158 lb., female - "I bite my nails when I am nervous or stress. I also overeat then too."

Vicious Cycles: Many become trapped in vicious cycles.

Age 12, 5'3", 145 lb., female - "I am unhappy because I eat I eat cause I am unhappy."

Age 14, 5'6", 171 lb., female - "Every time I'm stressed I eat and my weight is making me stressed."

Food Drug: Many say they use food like a drug.

Age 14, 5'6", Start: 202 lb., Current: 128 lb., female - "Food was like a drug for me..."

Tolerance: They exhibit tolerance, a characteristic of addiction.
Age 14, 5'2", 201 lb., female - "It's like a drug. What used to satisfy you before now has no effect. I feel like i've become immune to the foods that used to comfort me. And like drugs you keep moving on to bigger, worse things in order to get the same feeling as when you started out."

Success Stories: Typically, successes describe getting through withdrawal-type symptoms, which resemble withdrawal symptoms when coming off drugs or cigarettes.

Age 15, 5'10", Start: 211 lb., female, Current: 209 lb- "if u can have enough self control and stay off the sugar for two weeks you stop craving sugar completely."

DISCUSSION

These kids 'use' food to cope with life. Initially, they overeat because "the food is there" - it simply tastes good. But once their brains realize that pain, stress, and boredom are eased by the pleasure of the food and the action of eating, they may be driven to continue this 'comfort eating,' typically mindlessly, even though they become distressingly overweight or obese because of it.

The way these kids describe their relationship with pleasurable food comes close to satisfying nearly all of the DSM-IV substance dependence (addiction) criteria. This clinical evidence is corroborated by neuroimaging data which reveal that low dopamine D2 receptors in the striatum are strikingly similar in obese and drug-addicted individuals.¹ Thus, as the kids eat to ease emotional distress, dopamine receptor changes may insidiously take place in their brains. Once significant dopamine receptor changes have taken place in their brains, the kids are unable to cease the comfort eating - they are addicted. Actual addictive tolerance may develop, e.g. "I feel like i've become immune to the foods that used to comfort me." Thus, they eat larger amounts and higher pleasure-level foods to obtain the same degree of comfort. Withdrawal symptoms (cravings, anxiety), along with continued comfort eating needs and vicious cycles, perpetuate the addiction (weight loss failure, relapse).

A 16 year old girl eloquently summed it up: "A teen who does drugs or smokes would get in trouble if their parents found out. But no one's going to ground you for eating, which can be equally as damaging, and is equally as difficult to stop."

Opponents say the addiction model won't work for obesity, as "food is essential for life and is not a substance from which children can simply abstain."² Nevertheless, these kids say that they have the most problem resisting 'junk food.' Junk food is not essential for life.

CONCLUSIONS

The pattern revealed by this study compellingly points to addiction to pleasurable foods as a significant component of the childhood obesity epidemic. Addiction medicine techniques might thus improve interventions for overweight children. Taxation of junk food and stress reduction efforts for kids would seem warranted.

References

- Wang *et al.*, *J. Addict. Dis.*, 23(3): 39-53 (2004)
- Pretlow, R., *Pediatrics*, 122(2): 476 (2008)