

Feeding Frequency and Appetite in Lean and Obese Pre-pubertal Children

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SUPPLEMENTAL INFORMATION

- 1) Food items
- 2) Visual Analogue Scale (CAS)
- 3) Supplemental figure 1

FOOD ITEMS

The following foods were served: Cheerios®; 2% milk; banana; wheat toast; butter; cinnamon sugar; string cheese; chocolate chip granola bar; mandarin oranges; peanut butter; Premium® saltine crackers; apple juice; skim milk; Kraft® macaroni & cheese; Lit'l Smokies®; green beans; apple slices; Kool-Aid®, sugar-free; baby carrots; ranch dressing; chocolate milk, 1% fat; vanilla wafers; Hershey's Kisses®; canned peaches; juice pack; cottage cheese, 2% fat; whole milk; breaded chicken breast tenders; barbecue sauce; mashed potatoes; whipped margarine; chicken gravy; peas; and fruit punch.

VISUAL ANALOGUE SCALE

A. Introduction and Freddy Review

Hi! I'm Dr. _____ Do you remember this morning when you played games with Cathy/Phyllis? Did you have fun? Tonight we're going to play some more fun games. Do you want to play? Great! But first, before we can play any games, we have to remember what you did this morning. Do you remember what you played with this morning? This is Freddy. Do you remember Freddy? (Let child explain how he/she used Freddy last time, and record answer on data sheet).

If correct, move on to other questions, if incorrect: You can use Freddy to show how full your tummy feels. By moving this slider up and down (show child how to move the slider up and down) you can show me how full or empty Freddy's tummy is. Remember you used Freddy to show how full you would be if you ate French fries and fruit salad?

If your tummy feels empty, you push the slider to the bottom of the page like this (Push the slider to the bottom of the page.). But if you have eaten a lot and you can't possibly eat anymore, you push the slider all the way to the top (Push the slider to the top of the page.) IMPORTANT: You should only put the slider at the very top if you think Freddy is so full he can't eat another thing. Do not push the slider to the top unless you can't possibly eat anymore. Do you understand? Great. Once you are satisfied that the child understands, move on. Great!

B. Using Freddy to show how full you feel

Now we can also use Freddy to show how full **you feel**. So if **you** hadn't eaten anything and you're your tummy felt empty, you'd put the slider at the very bottom. If you ate so much and were so full that you couldn't possibly eat anymore, you'd put the slider at the top. Mark answers on data form

1. Now imagine that you ate just a little bit, like one cookie, how full do you think your tummy would feel? (If child moves the slider more than 25%, ask whether he/she is sure that's really a little bit. – Moving the slider too far for a little may indicate the child doesn't understand. (Mark answers on form.)
2. Now, imagine that you ate a few more cookies, how full do you think your tummy would feel? (Any response between the last one and the top is acceptable.) Mark answers on form.
3. Now imagine that you ate so many cookies that you didn't want any more, but you could still eat something else, how full do you think your tummy would feel? (Child should put the slider between 60 and 80% of the distance. Mark answers on form.
4. Now, if you ate so much that you couldn't possibly eat anymore, how full do you think your tummy would feel? Child should use the maximum. Mark answers on form.

Do you understand?

C. Tummy Game: Ice Cream Administration

Record start time when the child **begins** to eat the ice cream and the **end time** when he/she **says that she is finished eating**

Emphasize to the child that he/she should concentrate on eating the ice cream and how he/she feels.

Now we're going to continue playing the "Tummy Game" and you can earn some more stickers (show box with stickers).

Can you use Freddy to show me how full your tummy feels right now? Remember, if your tummy feels empty, you push the slider to the bottom of the page like this (Push the slider to the bottom of the page.). But if you have eaten a lot and you can't possibly eat anymore, you push the slider all the way to the top (Push the slider to the top of the page.) Do you understand? Great. Let child use Freddy to rate how full he/she feels. Mark it on the Pre-Ice Cream Freddy sheet.

Do you see the four bowls of ice cream? (show bowls labeled A1 to A4. Let child look at the bowls...should we present in a randomized order? Or in the same order for everyone?) First I want you to select a bowl of ice cream that you would like to eat. You can eat as much or as little as you'd like. As soon as you are done eating, tell me "I'm done." Then I want you to use the picture of Freddy and the slider to show me how full your tummy feels. After you show me how full your tummy feels on Freddy's belly, you can pick another sticker.

Do you understand what we're going to do? Okay, what are you going to do? Wait for child to repeat instructions to confirm that she understands the instructions. If she does, start the ice cream administration. If not, read extra section of script below

EXTRA: If child does not correctly reiterate instructions, say It's easy: first you're going to eat some ice cream, then you're going to tell me how your tummy feels, and then you're going to pick a sticker. **Ask child to repeat directions. Give the ice cream once the child correctly relays that he/she will drink a cup and tell how his/her tummy feels.**

Ready to start? Give the child the bowl of ice cream they selected and a spoon. Ok, now we're going to eat some yummy ice cream. Instruct the child to eat as much ice cream as they would like and say "done" when they are finished eating. When the child is says "done", record the time on the data form and then show the child the Freddy doll and slider apparatus with the ice cream 1 sheet. Ask the child "**Can you use Freddy to show me how full your tummy feels now?**" **Record the Start and Stop time** of eating the ice cream on the data form.

When she's done, give praise: "Good job!" "Excellent!" "You're doing great!"

When the child is finished eating the ice cream, give child the 7 point hedonic preference scale and have the child rate the taste of the ice cream. Can you show me how much you liked the taste of the ice cream you just ate by pointing to one of these pictures? Mark child's rating on data sheet.

Now ask the child if they would like more ice cream to eat. If they say yes, show them again 4 bowls of ice cream (B1 to B4). Ask them to select the bowl they would like to eat. Give them the bowl and spoon and tell them to eat as much as they would like and to indicate when they are finished eating by saying "Done!" When the child is finished, record the stop time on the data sheet. Ask the child, Can you use Freddy to show me how full your tummy feels? Use the "ice cream 2" Freddy form.

Once child has finished eating the ice cream, again give child the 7 point hedonic preference scale and have the child rate the ice cream. Can you show me how much you liked the taste of ice cream you just ate by pointing to one of these pictures? Mark child's rating on data sheet.

That was awesome. You did great! You can pick another sticker.

You did a great job today!