

# New Moves—Preventing Weight-Related Problems in Adolescent Girls

## A Group-Randomized Study

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### Appendix A

#### Description of variables assessed in intervention and control conditions

| Variable  | Description of assessment  | Psychometrics <sup>a</sup>             |
|---|--|--|
| <b>Body composition</b>                         |  |  |
| % body fat (DXA)                                | Percent body fat was estimated using DXA (Lunar Model, Madison, WI)  |  |
| BMI   | Weight and height were measured by trained New Moves staff, and BMI percentiles were calculated using CDC Growth Charts. <sup>1,2</sup>  |  |
| <b>Physical activity</b>                        |  |  |
| Total physical activity (30-minute blocks/day)  | Physical activity was assessed with the 3-DPAR, <sup>3</sup> which asks participants to recall the activities that they participated in during the majority of each half-hour time block between 6:00AM and 12MN on the 3 days prior to the day of data collection. A list of 65 common activities was provided, and participants selected the activity that they participated in for the majority of every half-hour block. If a participant recorded engaging in a physical activity during a half-hour block, she was also asked to report whether her exertion level during that block was light, moderate, hard, or very hard. For each physical activity at each exertion level, a corresponding MET value was identified. <sup>4,5</sup> Total physical activity was defined as a per day average of number of blocks for which any physical activity was reported. |  |
| Total MVPA (30-minute blocks/day)               | MVPA was assessed using the 3-DPAR. Each girl's average daily MVPA was calculated as the average number of blocks during which girls reported engaging in an activity with a MET value greater than 3. <sup>3,6,7</sup>  | Test/retest $r = 0.717$                |
| Stage of change: physical activity              | One question with five response categories ranging from <i>I am not physically active and do not intend to become active to I am physically active on most days of the week and have been for longer than 6 months</i> . Source: New Moves <sup>8</sup> modified from Marcus. <sup>9</sup>   | Test/retest $r = 0.85$                 |
| Goal-setting: physical activity                 | Five questions on frequency of setting goals related to physical activity; five Likert response categories. Range 5–25. Modified from Project GRAD. <sup>10</sup>  | Test/retest $r = 0.90$<br>alpha = 0.80 |
| Self-efficacy for physical activity             | Six questions regarding confidence to implement new activities and be active in different situations; five Likert response categories. Range 6–30. Source: New Moves. <sup>11</sup>  | Test/retest $r = 0.78$<br>alpha = 0.79 |
| <b>Sedentary Activity</b>                       |  |  |
| Total sedentary activity (30-minute blocks/day) | Total sedentary activity was assessed with 3-DPAR (see fuller explanation for total physical activity). Average number of 30-minute blocks per day for which any sedentary activity was reported. <sup>12,13</sup>   |  |
| TV use (30-minute blocks/day)                   | TV use was assessed with 3-DPAR, per day average of number of blocks for which <i>watching TV or movies</i> was reported.  |  |

| Variable                                       | Description of assessment  | Psychometrics <sup>a</sup>   |
|--|--|--|
| Stage of change: TV                            | One question with five response categories ranging from <i>I watch more than 1 hour of TV/Video/DVD each day and do not intend to watch less</i> to <i>I watch 1 hour or less of TV/Video/DVD on most days of the week and have been doing so for longer than 6 months</i> . Range: 1–5. Modified from New Moves <sup>8</sup> and Marcus. <sup>9</sup>   | Test/retest $r = 0.81$   |
| <b>Dietary intake</b>                          |  |  |
| Fruits and vegetable intake (servings/day)     | One 24-hour dietary recall administered in-person by research staff trained and certified to use the NDS-R. <sup>14</sup> Juices, avocado, fried fruit/vegetables, legumes, and vegetable-based savory snacks were excluded.   |  |
| Sugar-sweetened beverage intake (servings/day) | Based on one 24-hour dietary recall (see description above for fruit/vegetable intake). Sweetened beverages include regular soda and other non-diet sweetened drinks, such as sweetened tea, sweetened coffee, sweetened sports drinks, and fruit drinks. Diet drinks and 100% fruit juice were excluded.  |  |
| Stage of change: fruits and vegetables         | One question with five response categories ranging from <i>I do not eat 5 or more servings of fruits and vegetables per day and do not intend to start to I eat at least 5 or more servings of fruits and vegetables per day and have been doing so for longer than 6 months</i> . Range: 1–5. Modified from New Moves <sup>8</sup> and Marcus. <sup>9</sup>   | Test/retest $r = 0.85$   |
| Goal-setting: healthy eating                   | Four questions on frequency of setting goals related to healthy eating; five Likert response categories. Range: 4–20. Modified from Project GRAD. <sup>10</sup>  | Test/retest $r = 0.82$<br>alpha = 0.80                                       |
| <b>Eating patterns</b>                         |  |  |
| Breakfast (days/week)                          | One question on the number of days breakfast was eaten in the past week. Range: 0–7. Modified from New Moves <sup>8</sup> and Project EAT. <sup>15</sup> Original source: Cusatis. <sup>16</sup>   | Test/retest $r = 0.75$   |
| Portion control                                | Four questions on food choice behaviors and portion size awareness; four Likert response categories. Range: 4–16. Created for New Moves.   | Test/retest $r = 0.87$<br>alpha = 0.79                                       |
| Stage of change: breakfast                     | One question with five response categories ranging from <i>I do not eat breakfast and do not intend to start to I eat breakfast everyday and have been doing so for longer than 6 months</i> . Range: 1–5. Modified from New Moves <sup>8</sup> and Marcus. <sup>9</sup>   | Test/retest $r = 0.89$   |
| Stage of change: portion control               | One question with five response categories ranging from <i>I do not pay attention to the portion sizes of the food I eat and do not intend to start to I pay attention to the portion sizes of the food I eat and have been doing so for longer than 6 months</i> . Range: 1–5. Modified from New Moves <sup>8</sup> and Marcus. <sup>9</sup>  | Test/retest $r = 0.90$   |
| <b>Unhealthy weight control behaviors</b>      |  |  |
| Unhealthy weight control behaviors             | Ten questions assessing use of unhealthy weight control behaviors in the past month (yes/no). Behavior categories included fasted, ate very little, took diet pills, made myself vomit, used laxatives, used diuretics, used food substitutes, skipped meals, smoked more cigarettes, and went on a diet. If a respondent reported doing any of these behaviors, they were classified as having used unhealthy weight control behaviors. Modified from New Moves <sup>8</sup> and Project EAT. <sup>17</sup> | Test/retest $r = 0.80$   |
| Binge eating                                   | Two questions assessing binge eating in the past month (yes/no) and perceived loss of control during binge eating (yes/no). Binge eating defined as responding “Yes” to both questions. Modified from Project EAT <sup>18</sup> and adapted from Yanovski. <sup>19</sup>   | Test/retest $r = 0.88$ for 1st question and 1.0 for 2 <sup>nd</sup> question |
| <b>Body and self-image</b>                     |  |  |
| Athletic competence                            | Five questions assessing perceived athletic competence as compared to other teenagers. Range: 5–20. <sup>20</sup>  | Test/retest $r = 0.88$<br>alpha = 0.73                                       |
| Appearance                                     | Five questions assessing perceived physical appearance as compared to other teenagers. Range: 5–20. <sup>20</sup>  | Test/retest $r = 0.75$<br>alpha = 0.86                                       |
| Self-worth                                     | Five questions assessing perceived global self-worth as compared to other teenagers. Range: 5–20. <sup>20</sup>  | Test/retest $r = 0.78$<br>alpha = 0.79                                       |
| Body satisfaction                              | Ten questions assessing satisfaction with weight, height, and specific parts of the body; six Likert response categories. Range: 10–60. Adapted from the Body Shape Satisfaction Scale <sup>21</sup> and the Body Cathexis scale. <sup>22</sup>  | Test/retest $r = 0.84$<br>alpha = 0.92                                       |

| Variable                              | Description of assessment   | Psychometrics <sup>a</sup>             |
|---------------------------------------|---|--|
| <b>Support for PA</b>                 |   |  |
| Friend support for physical activity  | One question on friend support for physical activity; four Likert response options. Range: 1–4. Modified from Project EAT <sup>15</sup> and New Moves. <sup>8</sup> | Test/retest $r = 0.65$                 |
| Teacher support for physical activity | One question on teacher support for physical activity; four Likert response options. Range: 1–4. Modified from New Moves. <sup>8</sup>                              | Test/retest $r = 0.76$                 |
| Family support for physical activity  | Five questions on family support for physical activity; five Likert response options. Range: 5–25. Adapted from PACE+. <sup>23</sup>                                | Test/retest $r = 0.81$<br>alpha = 0.83 |
| <b>Support for healthy eating</b>     |   |  |
| Friend support for healthy eating     | One question on friend support for healthy eating; four Likert response options. Range: 1–4. Modified from Project EAT <sup>15</sup> and New Moves. <sup>8</sup>    | Test/retest $r = 0.73$                 |
| Teacher support for healthy eating    | One question on teacher support for healthy eating; four Likert response options. Range: 1–4. Modified from New Moves. <sup>8</sup>                                 | Test/retest $r = 0.68$                 |
| Parent support for healthy eating     | One question on mother support for healthy eating and one on father support; four Likert response options. Range: 2–8. Modified from Project EAT. <sup>15</sup>     | Test/retest $r = 0.81$<br>alpha = 0.62 |

<sup>a</sup> Test/retest data come from pilot study conducted on girls similar to the New Moves study population ( $n=48$ ). Cronbach's alpha values come from final study population ( $n=356$ ).

3-DPAR, 3-Day Physical Activity Recall Survey; DXA, dual-energy x-ray absorptometry; MVPA, moderate-to-vigorous physical activity; NDS-R, Nutrition Data System for Research, version 2006, Nutrition Coordinating Center, University of Minnesota, Minneapolis; Project GRAD, Graduation Really Achieves Dreams; Project EAT, Eating Among Teens

## References for Appendix A

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