**Supplementary Table S1**

*Overview of the Mindfulness-Based Program*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | # | Summary | Activity 1 | Rv | Activity 2 | Activity 3 | Rf | Co |
| Module I: Intro | 1 | Children were presented with the goal of the program (to be happy) and the best way to achieve it (calming the mind through mindfulness). They also committed to collaborate with ZiZu in all activities. | Presentation of the content and structure of the program |   | Movement meditation (arms) | Senses meditation (hearing) | P | P |
| Module II: 5 Senses | 2 | Children learned the importance of observing the world using the five senses (touch, sight, hearing, smell, and taste), which allowed them to pay attention to and enjoy the present moment. | Breathing meditation (nose) | P | Senses meditation (touch, smell, and taste) |  | P | P |
| 3 | Children learned and practiced how to observe the surrounding environment using touch, sight, hearing, smell, and taste. | Breathing meditation (nose) | P | Senses meditation (sight) | Senses meditation (hearing) | P | P |
| 4 | Children practiced the focus of attention using hearing and sight, and discussed how to use these senses during their daily life, at school or at home. | Breathing meditation (chest) | P | Senses meditation (hearing and sight) | Senses meditation (sight) | P | P |
| Module III:Body | 5 | Children learned that besides observing the environment, they could observe their inner sensations. They were introduced to the 3 C's (Body, Heart, and Brain, in Portuguese: Corpo, Coração, Cérebro). | Breathing meditation (chest) | P | Movement meditation (arms and head) | Body scan | P | P |
| 6 | Children discussed the qualities of the body and its limits, as well as the importance of observing them. They also practiced how to identify different sensations in body parts. | Breathing meditation (stomach) | P | Movement meditation (whole body) |  | P | P |
| 7 | Children continued to practice the focus of attention in the body. Also, they learned the importance of scanning the body to identify what is happening in their hearts (i.e., their feelings). | Breathing meditation (stomach) | P | Body scan | Briefing: body-feelings connection | P | P |

*Continues in the next page*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | # | Summary | Activity 1 | Rv | Activity 2 | Activity 3 | Rf | Co |
| Module IV:Heart | 8 | Children practiced the observation of feelings by paying attention to the body through the weather metaphor (e.g., when you are happy your body shines as the sun). | Breathing meditation (nose, chest, and stomach) | P | Observing feelings | Briefing: weather metaphor | P | P |
| 9 | Children practiced the observation of feelings by paying attention to the body. Additionally, they learned the traffic light technique to deal with difficult emotions (e.g., anger). | Breathing meditation (nose, chest, and stomach) | P | Briefing: Traffic light technique |  | P | P |
| 10 | Children continued to practice the observation of feelings through the body. Also, they were introduced to the importance of observing the brain to identify different types of thoughts (useful vs. useless). | Breathing meditation (free focus) | P | Observing feelings | Briefing: useful and useless thoughts (intro) | P | P |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Module V:Brain | 11 | Children practiced the observation of thoughts. They learned how to identify useful and useless thoughts as well as how to let go these latter. | Breathing meditation (free focus) | P | Observing thoughts | Briefing: useful and useless thoughts (practice) | P | P |
| 12 | Children continued to practice the observation of thoughts. Moreover, they learned the BE+ Game (*Jogo SER+*) to observe the 3 C's every day after waking up, while moving. | Breathing meditation (free focus, unguided) | P | Observing thoughts | Combination of meditations (moving) | P | P |
| 13 | Children learned how to use the BE+ Game to observe the 3 C's before bed, while seated. Also, they practiced the use of the traffic light technique in everyday situations. | Breathing meditation (free focus, unguided) | P | Combination of meditations (seated) | Practice of the traffic light technique | P | P |
| Module VI:Consolidation | 14 | Children learned the importance of being kind to others. Also, they practiced the use of the traffic light technique in everyday situations. | Combination of meditations (movement) | P | Loving kindness meditation (others) | Practice of the traffic light technique | P | P |
| 15 | Children were taught that, in addition to being kind to others, they should be kind to themselves. They continued to practice the traffic light technique. | Combination of meditations (movement) | P | Loving kindness meditation (others and self) | Practice of the traffic light technique | P | P |
| 16 | Children listened to examples demonstrating how to use the main meditation practices addressed in the program in their daily lives. | Practical application of all meditations |  |   |   |  | P |

*Note*. Rv = revision of the previous lesson; Rf = contents reflection activity; Co = conclusion.

**Supplementary Table S2**

*Overview of the Health-Based Program*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   | # | Summary | St | Rv | Main Lesson activity | Rf | Co |
| Module I: Intro | 1 | Children learned the program’s goal (to have energy) and how way to achieve it (healthy eating and physical activity). They also committed to collaborate with Sopas in all activities. |  |  | Children were asked to make drawings representing their favorite foods and physical exercises. | P | P |
| 2 | Children discussed the consequences of a poor diet and lack of physical activity. They also thought about what they could do to have a healthy lifestyle. | P | P | After watching a video about a bird, children discussed the consequences of a poor diet, based on a question-answer game. | P | P |
| 3 | Children reflected upon the importance of being physically active and elaborated a plan with simple physical exercises. | P | P | As a continuation of the previous lesson, children elaborated a physical activity plan for the bird to be healthier. | P | P |
| Module II: Inside and Outside the Food Pyramid | 4 | Children were introduced to the Food Pyramid and the major rules concerning what food groups to eat in each meal and in which quantity. | P | P | In a question-answer game, children discussed the Food Pyramid rules. | P | P |
| 5 | Children learned the characteristics of the biggest food group of the Food Pyramid (bread, cereal, rice, and pasta), namely, foods, servings per meal/day, and main benefits. | P | P | Children started building a healthy diet plan for Sopas by choosing the healthiest options within the group addressed in the lesson. | P | P |
| 6 | Children learned the characteristics of two other major food groups (fruit and vegetable groups), namely, foods, servings per meal/day, and main benefits. | P | P | Children were asked to make drawings representing their favorite fruits and vegetables. | P | P |
| 7 | Children reviewed the characteristics of the three major group foods learned so far (bread, cereal, rice, and past; fruit; vegetables). | P | P | Children continued building Sopas’s diet plan, by choosing the healthiest options within the vegetables and fruits food groups. | P | P |
| 8 | Children were introduced to other two food groups (dairy and meat, poultry, fish, and eggs groups) and provided with examples, servings per meal/day, and main benefits. | P | P | Based on a story, children had to discover that the main difference between two twins relied on lack of foods from the groups learned. | P | P |
| 9 | Children got to know the smallest food groups of the Food Pyramid (beans and fat groups) including examples, servings per meal/day, and main benefits. | P | P | Children tried to guess the answer to a set of riddles focused on food groups addressed in the lesson. | P | P |
| 10 | Children reviewed the characteristics of the food groups learned in the previous lessons (dairy; meat, poultry, fish, and eggs; beans; and fat). | P | P | Children concluded the healthy diet plan for Sopas by choosing the healthiest food options within the remaining food groups. | P | P |
| 11 | Children learned about the importance of drinking water and its main benefits for the body. | P | P | Children discussed if water-related statements were myths or facts. | P | P |
| 12 | Children reviewed the major rules of the Food Pyramid, including the most important information about each food group. | P | P | Children watched a video summarizing all learnings so far. | P | P |
| 13 | Children learned why sugar and salt are outside of the Food Pyramid. They also discussed the importance of avoiding the excessive eating of foods with too much salt and sugar. | P | P | Children were given several options of food with more or less sugar and salt and had to choose the healthier ones. | P | P |
| Module IV: Consolidation | 14 | Children learned how to apply their knowledge about the Food Pyramid to make healthy choices for each meal. | P | P | Children watched a video about breakfast, presented as key meal. | P | P |
| 15 | Children reviewed all the content provided throughout the program (i.e., Food Pyramid rules; characteristics of major food groups; water, salt, and sugar).  | P | P | Children played a game to recap the main learnings of the program. |  | P |
| 16 | Children were prepared for the closing of the program, including a strategy to apply all the learnings in their daily lives to live with more energy. | P | P | Children build their own healthy eating and physical activity plan, by selecting their favorite foods and activities. |  | P |

*Note*. St = stretching; Rv = revision of the previous lesson; Rf = contents reflection activity; Co = conclusion.

**Supplementary Table S3**

*Pooled Correlations Between Writing Performance Variables for the HBP Group (Above the Diagonal) and the MBP Group (Below the Diagonal)*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1. | 2. | 3. | 4. | 5. | 6. |
| 1. Pretest handwriting fluency | \_ | -0.30\*\* | 0.05 | 0.73\*\*\* | -0.24\*\* | 0.02 |
| 2. Pretest spelling errors | -0.17 | \_ | -0.43\*\*\* | -0.22\* | 0.82\*\*\* | -0.23\* |
| 3. Pretest composing quality | 0.28\*\* | -0.52\*\*\* | \_ | 0.04 | -0.40\*\*\* | 0.41\*\*\* |
| 4. Posttest handwriting fluency | 0.62\*\*\* | 0.26\*\* | 0.26\*\* | \_ | -0.20 | 0.21\* |
| 5. Posttest spelling errors | -0.16 | 0.73\*\*\* | -0.35\*\*\* | -0.29\*\* | \_ | -0.31\*\* |
| 6. Posttest composing quality | 0.23\* | -0.40\*\*\* | 0.49\*\*\* | 0.25\*\* | -0.34\*\*\* | \_ |

\**p* < 0.05; \*\**p* < 0.01; \*\*\**p* < 0.001.

**Supplementary Table S4**

*Range of MANOVA Results Across Imputed Datasets for the Main and Moderating Effects of Absences, Knowledge, and Social Validity*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |   | Dispositional mindfulness |   | Teacher-rated children’s behavior |   | Writing performance |   | Academic achievement |
| Moderators | Λ | *F* | FU |   | Λ | *F* | FU |   | Λ | *F* | FU |   | Λ | *F* | FU |
| Lesson absences  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  | Long lessons | 0.98–0.99 | 0.27–0.52 | no |  | 0.99–1.00 | 0.20–0.54 | no |  | 0.98–0.99 | 0.68–1.10 | no |  | 0.98–0.99 | 1.17–1.39 | no |
|  | Short lessons | 0.98–0.99 | 0.36–0.74 | no |  | 0.99–1.00 | 0.76–1.25 | no |  | 0.98–0.99 | 0.85–1.60 | no |  | 0.97–0.98 | 2.01–2.39 | no |
|  | Long lessons x Condition | 0.97–0.98 | 0.85–1.40 | no |  | 0.99–1.00 | 0.13–0.40 | no |  | 0.98–0.99 | 0.62–1.05 | no |  | **0.96–0.97** | **2.73\*–3.08\*** | **yes** |
|  | Short lessons x Condition | 0.98–0.99 | 0.66–0.96 | no |  | 0.99–1.00 | 0.05–0.25 | no |  | 0.97–0.98 | 1.45–2.16 | no |  | 0.97–0.98 | 2.00–2.33 | no |
| Intervention-related knowledge |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Knowledge | 0.96–0.99 | 0.69–1.91 | no |  | 0.99–1.00 | 0.49–1.09 | no |  | 0.96–0.99 | 0.83–3.61\* | no |  | **0.92–0.95** | **4.21\*\*–6.65\*\*\*** | **yes** |
|  | Knowledge x Condition | 0.94–0.97 | 1.81–3.02\* | no |  | **0.94–0.98** | **2.91\*–6.91\*\*** | **yes** |  | 0.99–1.00 | 0.02–0.58 | no |  | 0.97–0.99 | 0.59–1.74 | no |
| Perceptions of social validity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Social validity  | **0.86–0.90** | **5.37\*\*\*–7.92\*\*\*** | **yes** |  | 0.98–1.00 | 0.33–1.02 | no |  | 0.96–0.99 | 1.55–4.11\*\* | no |  | 0.98–0.99 | 0.16–0.96 | no |
|   | Social validity x Condition | 0.97–0.99 | 0.54–1.10 | no |   | 0.99–1.00 | 0.02–0.39 | no |   | 0.99–1.00 | 0.09–0.27 | no |   | 0.97–0.99 | 1.23–2.38 | no |

*Note.* Significant effects across the five imputed datasets are signaled in bold. These were followed up with linear mixed modeling, as indicated in the column labelled FU (follow up).

**Supplementary Figure S1**

*Step-by-Step Illustration of the Data-Analytic Strategy*

