

Table S1. Implementation frequency of health education activities at intervention school from May to September in 2017

| Health education activities | Frequency |
|---|---------------------------------------|
| Health education curricula, including topic lectures, watching related cartoons, etc. | once every two weeks |
| Performing a skit or topic class meeting | once |
| Hand-copied newspapers | once |
| Drawing contest | once |
| Theme essay or writing contest | once |
| Speech contest | once |
| Recess radio broadcasting | once a week |
| Blackboard newspapers | two issues |
| School summer activities: during the school summer holiday, the students were required to participate in the practice activities against extreme heat, such as observing and writing down how the families or friends respond to extreme heat | at least 3 times for every student |
| Medicine prepare: the school clinic was required to prepare enough medicine to prevent and treat heatstroke in summer. | |
| Warm boiling water prepare: enough warm boiling water was provided to ensure that students could drink clean warm water at all times. | |
| Develop habit of washing hands: superintend and help students to develop the habit of washing hands before eating and after using the toilet. | |

Table S2. Quantitative scores for knowledge, attitude and practice (KAP) items

| Primary students | | | Parents | | |
|--------------------------------------|-------------------------------------|---|----------------------------------|--|---|
| KAP | | Score | KAP | | Score |
| Knowledge (K, Total score: 8) | | $k_1+k_2+k_3+k_4+k_5/8+K_6/6+K_7/9+K_8/6=8$ | K (Total score: 8 points) | | $k_1+k_2+k_3+k_4+k_5/8+K_6/6+K_7/9+K_8/5=8$ |
| k ₁ | Climate change | 1 | k ₁ | Climate change | 1 |
| k ₂ | Threshold of hot weather | 1 | k ₂ | Heat warning | 1 |
| k ₃ | Heatwave | 1 | k ₃ | Threshold of hot weather | 1 |
| k ₄ | The grading of heat warning | 1 | k ₄ | Heatwave | 1 |
| k ₅ | Impacts of climate change | 8 | k ₅ | Impacts of climate change | 8 |
| k ₆ | Climate change mitigation measures | 6 | k ₆ | Climate change mitigation measures | 6 |
| k ₇ | Heatstroke symptom | 9 | k ₇ | Heatstroke symptom | 9 |
| k ₈ | Heatstroke treatment | 6 | k ₈ | Heatstroke treatment | 5 |
| Attitude (A, Total score: 3) | | $a_1/10+a_2/10+a_3/10=3$ | A (Total score: 3 points) | | $a_1/10+a_2/10+a_3/10=3$ |
| a ₁ | Willing to learn relevant knowledge | 10 | a ₁ | Willing to pay attention to climate change | 10 |
| a ₂ | Willing to start from self | 10 | a ₂ | Be interested in relevant knowledge | 10 |
| a ₃ | Willing to change habits | 10 | a ₃ | Willing to attend relevant activities | 10 |
| Practice (P, Total score: 4) | | $p_1+p_2/3+p_3+p_4=4$ | P (Total score: 4 points) | | $p_1+p_2/3+p_3+p_4/7=4$ |
| p ₁ | Pay attention to weather forecast | 1 | p ₁ | Pay attention to weather forecast | 1 |
| p ₂ | Appropriate behavior in hot weather | 3 | p ₂ | Use air conditioning | 1 |
| p ₃ | Use air conditioning | 1 | p ₃ | Actively consult impacts of weather | 1 |
| p ₄ | Wash hands before meals | 1 | p ₄ | Appropriate activities in hot weather | 7 |

Table S3. Difference in age and sex ratio among students participated in different numbers of activities

| Number of activity attended | Number of students | Age | | | Sex | | | |
|-----------------------------|--------------------|-----------------|---------|---------|----------------|-----------------|------------|---------|
| | | Mean±SD (years) | F value | P value | Number of boys | Number of girls | Chi-Square | P value |
| ≤3 | 224 | 10.3±1.0 | | | 129 | 95 | | |
| 4-6 | 108 | 10.5±1.0 | 24.1 | <.0001 | 48 | 60 | 5.1 | 0.0783 |
| 7-9 | 73 | 11.2±0.7 | | | 38 | 35 | | |

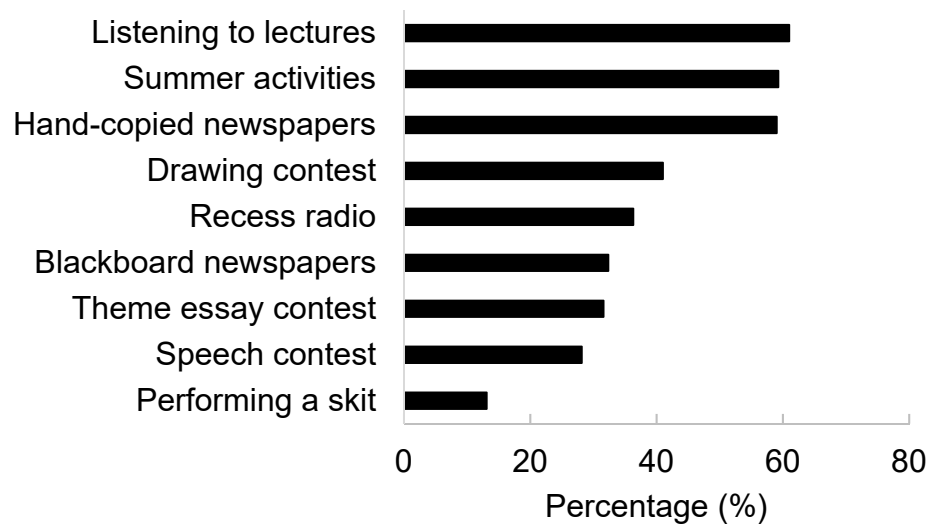


Figure S1. The percentage of primary school students that participated in various health education activities at the intervention school in Dongtai in 2017