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Correction

Correction: Shao et al. Outdoor Cold Stress and Cold Risk for Children during Winter: A Study in China's Severe Cold Regions. *Buildings* 2022, *12*, 936

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It is very unfortunate that there were mistakes in the original publication [1]; the symbol "−" is missing in the main content and tables. Therefore, the authors would like to correct the following lines:

Correction 1: Abstract

Female children have a lower neutral UTCI (6.0 °C) than male children (7.3 °C), and female children have lower upper and lower thresholds of the neutral UTCI range (−1.3–13.4 °C) than male children (0.6–14.1 °C).

Correction 2: Section 2.1

Ta ranged from −22.9 °C to −12.0 °C. The lowest monthly average temperature occurred in January (−17.6 °C). The lowest average temperature occurred in January (−22.9 °C).

Correction 3: Section 2.2.2

In the second part of the questionnaire, the thermal sensation was recorded on a nine-point scale (−4, very cold; −3, cold; −2, cool; −1, slightly cool; 0, neutral; 1, slightly warm; 2, warm; and 3, hot). Preferences for T_a, V, and G were recorded on a three-point scale (−1, higher/stronger; 0, no change; 1, lower/weaker). Thermal comfort was also expressed on a three-point scale (−1, discomfort; 0, moderate; 1, comfort). Finally, thermal acceptability was recorded on a two-point scale (−1, unacceptable; 1, acceptable).

Correction 4: Section 3.1.2

The average T_a was approximately −17 °C.

The average T_g values for the OS (−12.2 °C) and SR (−11.7 °C) were larger than those for the SP (−12.5 °C) and SS (−13.2 °C).

Table 4. Measurements of meteorological variables among sites.

		SP	OS	SS	SR
T_a (°C)	Min	−22.5	−22.6	−20.9	−21.2
	Max	−11.3	−11.8	−12.4	−12.5
	Mean ± SD	−16.8 ± 3.2	−16.9 ± 3.1	−16.8 ± 1.6	−16.7 ± 1.7
RH (%)	Min	13.4	18.2	8.6	13.9
	Max	66.4	66.2	63.1	63.3
	Mean ± SD	54.2 ± 7.7	54.8 ± 6.5	55.6 ± 7.1	53.9 ± 7.4
V (m/s)	Min	0	0	0	0
	Max	3.4	4.4	4	4.4
	Mean ± SD	0.8 ± 0.6	1.2 ± 0.7	0.9 ± 0.6	0.9 ± 0.8

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Table 4. *Cont.*

		SP	OS	SS	SR
G (W/m^2)	Min	17	26	31	35
	Max	344	449	415	468
	Mean ± SD	146.5 ± 102.7	207.4 ± 116	155.3 ± 97.6	186.6 ± 127.7
T_g (°C)	Min	−22.2	−22.3	−20.9	−21.1
	Max	1.2	−3.4	−7.7	−1.3
	Mean ± SD	−12.5 ± 5.5	−12.2 ± 4.7	−13.2 ± 3.1	−11.7 ± 5.2
T_{mrt} (°C)	Min	−29.6	−27.4	−35.2	−43.9
	Max	60.7	59.9	46.5	66.9
	Mean ± SD	2 ± 19.5	10.1 ± 18.2	2.1 ± 14.4	4.6 ± 22.3

Correction 5: Section 3.1.3

Table 5. Spearman correlation statistics of TSV and meteorological parameters.

	Gender	T_a	RH	V	G	T_g	T_{mrt}
TSV	Male	0.020	0.081	0.083	0.272 **	0.201 **	0.238 **
	Female	0.081	−0.011	−0.027	0.123 *	0.149 *	0.138 *
	All	0.053	0.044	0.030	0.200 **	0.178 **	0.190 **

** Significant at the 0.01 level. * Significant at the 0.05 level.

Correction 6: Section 3.2.1

NUTCIR is the temperature range corresponding to a TSV between −0.5 and 0.5. Thus, winter NUTCIR was −1.3–13.4 °C for female subjects, 0.6–14.1 °C for male subjects, and 0.5–14.0 °C for all the respondents.

Correction 7: Section 3.3.1

Table 6. UTCI calibrations for different stress categories.

Thermal Sensation	UTCI (°C)	Modified UTCI (°C) (Female)	Modified UTCI (°C) (Male)	Modified UTCI (°C) (All)
Extreme cold stress	<−40	<−20.8	<−19.8	<−20.5
Very strong cold stress	−40 to −27	−20.8 to −17.5	−19.8 to −16.6	−20.5 to −17.1
Strong cold stress	−27 to −13	−17.5 to −13.4	−16.6 to −12.5	−17.1 to −12.8
Moderate cold stress	−13 to 0	−13.4 to −6.6	−12.5 to −5.6	−12.8 to −6.2
Slight cold stress	0 to 9	−6.6 to 3.5	−5.6 to 2.8	−6.2 to 7.0
No thermal stress	9 to 26	-	-	-

Correction 8: Section 3.3.2

The children performed the least number of activities in the SP, presumably due to the presence of conifers and cypress evergreens on the south side of the SP space that resulted in a lower G (146.5 W/m^2) and T_g (−12.5 °C) in that area.

Correction 9: Section 3.4.3

As indicated in the chart, t_{WC} maintains an upward trend during the test period, albeit always less than −10 °C. The t_{WC} of the SP, SS, and SR were always greater than −24 °C, i.e., Level 1 cooling risk.

With a t_{WC} < −24 °C before 10:00, subjects were exposed to Level 2, i.e., skin frostbite.

The average surface temperature of wooden seats under sunlight (−11.4 °C) was 1.4 °C lower than the pain threshold (−10 °C) of fingers, resulting in the potential risk of finger pain when touching the wooden seats, plastic slides, and permeable bricks. The average temperature of the stone brick surface under sunlight (−21.1 °C) was 6.1 °C lower than the threshold for numbness (−15 °C), and 3.1 °C lower than the threshold for freezing (−18 °C).

When the subjects were playing on the slide, the maximum temperature of the iron handrail (−16.2 °C) was lower than the pain threshold (−7 °C) for 100 s of contact.

Table 8. Summary of the average T_s of various materials in each space in winter.

	Materials	**Thermal Conductivity**	**In the Shade (°C)**			**In the Sun (°C)**		
		W/(m·K)	**max**	**ave**	**min**	**max**	**ave**	**min**
Brick	Brick	0.63	−15.9	−21.3 ± 3.1	−27.2	−12.6	−17.7 ± 2.5	−24.4
Stone brick	Stone	0.92	−17.1	−22.5 ± 2.6	−25.9	−14.1	−21.1 ± 2.9	−28.2
Ice	Ice (−15 °C)	2.4 [71]				−13.4	−18.3 ± 3.6	−25.3
Chair	Wood	0.18	−17.9	−20.2 ± 1.0	−22	−7.4	−11.4 ± 1.3	−16.8
Plastic slide	Polyamides	0.21	−16.4	−20.3 ± 2.1	−25.1	−10.7	−15.7 ± 3.6	−21.8
Slide handrail	Steel	45.3	−16.2	−19.5 ± 1.8	−23.1	−14.3	−17.8 ± 2.5	−21.7

Table 9. Cold risk thresholds for hand contact with different materials [65].

	Contact Period	**Cold Risk**	**Aluminium**	**Steel**	**Stone**	**Nylon**	**Wood**
Finger touching	10 s	Pain	>5	>5	4	−6	−10
		Numbness	3	−1	−15	−40	≤−40
		Frostbite	−7	−13	−18	-	-
Hand gripping	100 s	Pain	−4	−7	−17	−33	≤−40

Correction 10: Section 4.1.1

Harbin has a lower average temperature in January than Xi'an (−17.6 < 0.6 °C).

Correction 11: Section 4.3.1

Low wind speeds with temperatures below −15 °C are common in extremely cold regions during winter. Such an environment can cause frostbite [79].

Correction 12: Section 4.3.2

Table 12. Cold risk analysis and corresponding prevention strategies.

Cold Risk Analysis	**Prevention Strategies**
Children with light-intensity activities had I_{cl} less than ICL_{min} (1.88 clo < 3.9 clo), DLE_{min} = 0.7 h. The risk of hypothermia increased with gradual exposure.	1. Increase activity intensity to increase metabolic heat production. 2. Wear warmer clothes. 3. Control the length of outdoor activities and enter shelter in time to restore body temperature.
The I_{cl} of children with vigorous-intensity activities was greater than $ICL_{neutral}$ (1.44 clo > 1.0 clo), which caused sweating and accelerated the cooling rate of the body.	1. Reduce the activity intensity and change into dry clothes in time to avoid accelerating body cooling after the clothes are soaked in water. 2. Control the length of outdoor activities and enter shelter in time to restore body temperature.
Overall, the children's I_{cl} was less than ICL_{min},DLE_{min} = 3.2 h.	1. Wear loose-fitting clothing with higher thermal resistance. 2. Avoid sweating due to excessive activity. 3. Control activity time and avoid prolonged exposure to the cold environment.
With t_{WC} less than −24 °C before 10:00 in space OS, children were exposed to Level 2 cooling risk with the risk of skin frostbite.	1. Adjust travel time and location. Choose a more suitable space and location for the event. 2. Wear warm clothes. Wear gloves, masks, scarves, and hats with earmuffs to avoid frostbite from exposure to cold winds.

Table 12. *Cont.*

Cold Risk Analysis	Prevention Strategies
The t_{WC} of space SP, SS, SR was always greater than −24 °C and less than −10 °C; so, it was always at the risk of Level 1 cooling, and the skin was exposed to uncomfortable cold.	1. Wear warm clothes. Wear masks, scarves, and hats with earmuffs, etc., to avoid exposing your skin to cold winds. 2. Control the length of outdoor activities and avoid prolonged exposure to cold wind.
The average surface temperature of wooden seats in sunlight (−11.4 °C) was 1.4 °C lower than the pain threshold (−10 °C) for fingers touching wood surfaces. Touching wooden seats and plastic slides might cause pain.	1. Use caution with cold surfaces. Minimize exposure to cold surfaces without gloves. 2. Wear gloves.
The average temperature of the stone brick surface under sunlight (−21.1 °C) was 6.1 °C lower than the numbness threshold (−15 °C) of the fingers touching the stone surface, and 3.1 °C lower than the frostbite threshold (−18 °C). Frostbite might occur when fingers touch stone bricks, ice surfaces, and slide handrails.	1. Be cautious of touching cold surfaces, especially stone tiles, ice surfaces, and children's handrails. Wear gloves. 2. Anti-skid warning signs and emergency rescue stations should be set up on ice and snow fields and sites where stone bricks are laid. 3. Regularly check the insulation coating of the touch area of the iron and steel facilities in the park.

Correction 13: Section 5

The NUTCIR of female, male, and all children are −1.3–13.4, 0.6–14.1, and 0.5–14.0 °C, respectively.

The risk at the SP, SS, and SR is always under Level 1 ($-24 \leq t_{WC} \leq -10$ °C). OS has a risk level of Level 2 ($t_{WC} \leq -24$ °C) before 10:00 a.m.

The authors state that the scientific conclusions are unaffected. This correction was approved by the Academic Editor. The original publication has also been updated.

Reference

1. Shao, L.; He, X.; Tang, Y.; Wu, S. Outdoor Cold Stress and Cold Risk for Children during Winter: A Study in China's Severe Cold Regions. *Buildings* **2022**, *12*, 936. [CrossRef]