2. Importance of resilience (relationship with well-being) and keys for the development of children's resilience

Summary of Chapter 2

● Research procedure

- Extracted data of 5-year-olds from 5-year-olds/7-year-olds data in the eight Asian countries for analysis
- As a representing example of the eight Asian countries, data of 246 cases for 5-year-olds in Japan was extracted for analysis
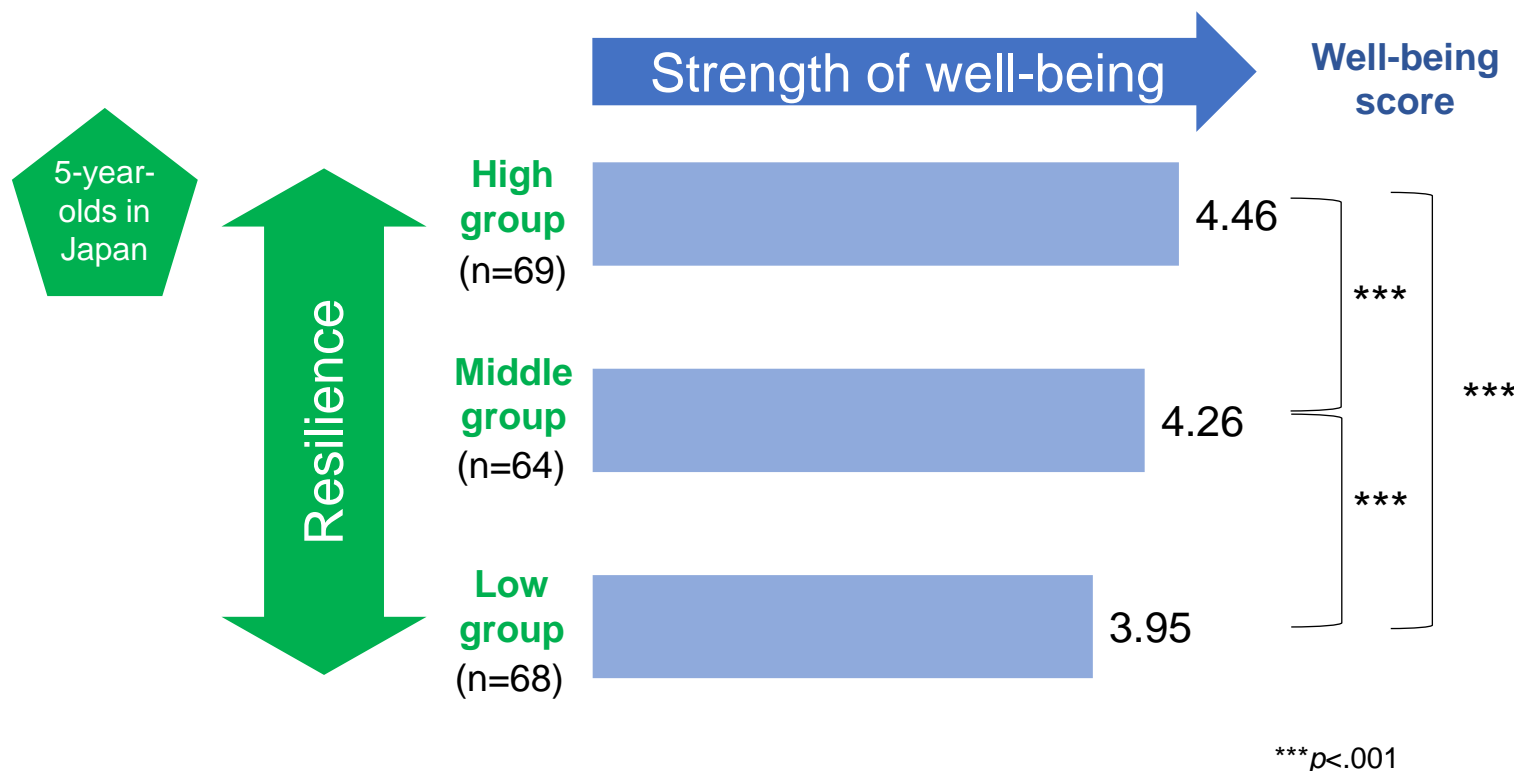
● Findings

1. **Relationship between Children's "Well-being" and "Resilience": "Resilience" is associated with children's well-being in all eight countries.**

2. **In Japan, the following factors were identified as keys for the development of children's resilience. Detailed items of each factor were also identified.**
   (1) Interaction of mothers effective for developing resilience
      1) Mothers' responsive parenting attitude, 2) Mother's childrearing confidence,
      3) Mothers' support when using digital media
   (2) Interaction of childcare facilities (caregivers) effective for developing resilience
      Support from childcare facilities(caregivers)
   (3) Other factors effective for developing resilience
      Number of friends to play with

3. **Factors effective for developing resilience for 5-year-olds in Japan are effective in other Asian countries**

- **Higher well-being was achieved in groups with higher resilience in all the eight countries**
- **The following shows the analysis result of 5-year-olds data in Japan. Similar results were found in all eight countries.**

Strength of well-being

Well-being score

5-year-olds in Japan

Resilience

	Well-being score
High group (n=69)	4.46
Middle group (n=64)	4.26
Low group (n=68)	3.95

*** (High–Middle)
*** (High–Low)
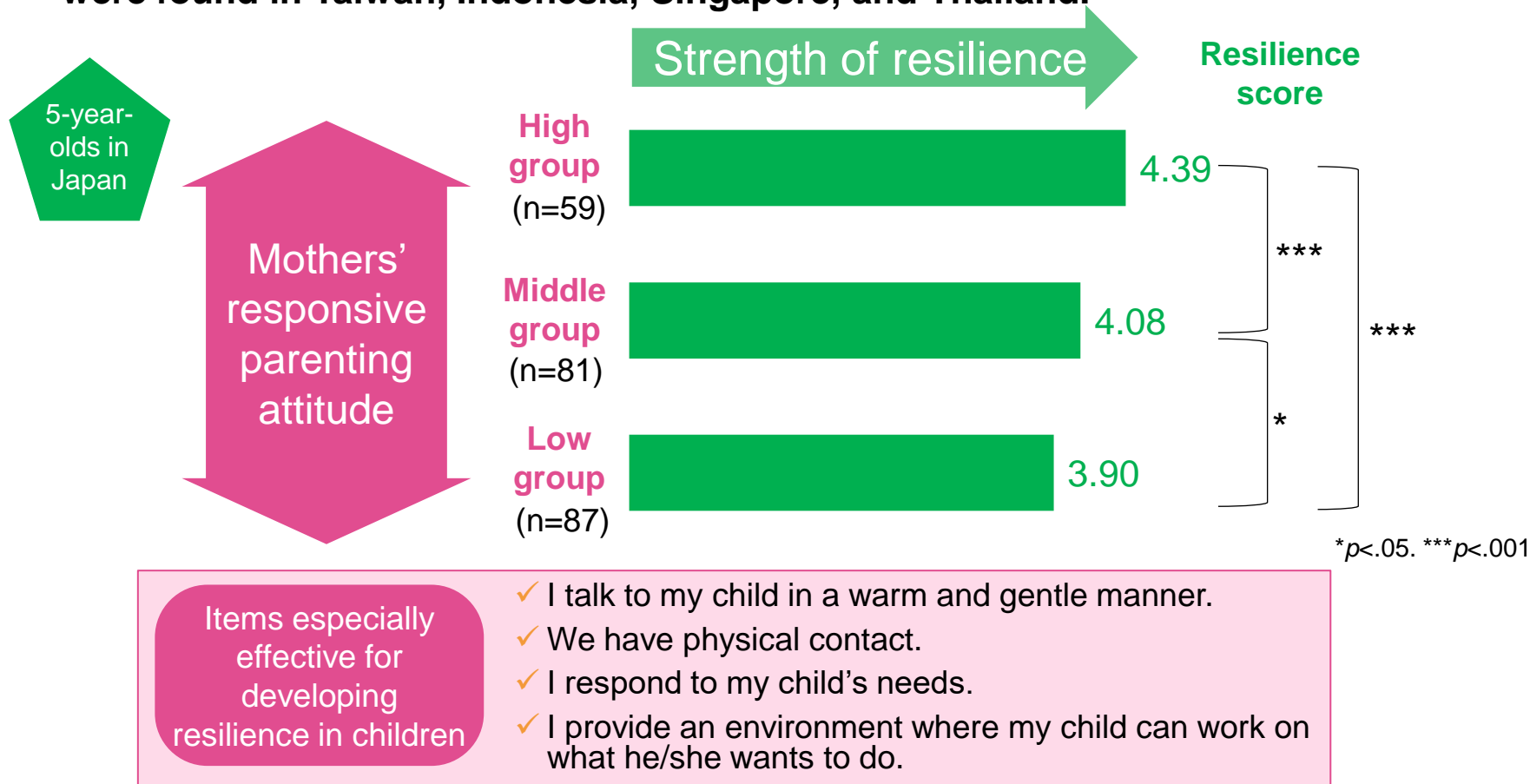*** (Middle–Low)

*** *p*<.001

* **Three resilience groups:** After aggregating the scores of 17 resilience items using the PMK-CYRM-R scale, the resulting data was almost equally divided into three groups of "High," "Middle," and "Low" based on the distribution.
* **Well-being scores:** After aggregating the scores of 24 well-being items using the KINDL scale from "Never" (1 point) to "All the time" (5 points), the resulting data (1 to 5 points) was divided by the number of items. The above figures are the average values of each group (high, middle, and low resilience groups).

● **Stronger responsive parenting attitudes indicate higher children's resilience scores**
● **The following shows the analysis result of 5-year-olds data in Japan. Similar results were found in Taiwan, Indonesia, Singapore, and Thailand.**

Strength of resilience

Resilience score

5-year-olds in Japan

Mothers' responsive parenting attitude

High group (n=59) — 4.39

Middle group (n=81) — 4.08

Low group (n=87) — 3.90

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*$p<.05$. ***$p<.001$

Items especially effective for developing resilience in children

✓ I talk to my child in a warm and gentle manner.
✓ We have physical contact.
✓ I respond to my child's needs.
✓ I provide an environment where my child can work on what he/she wants to do.
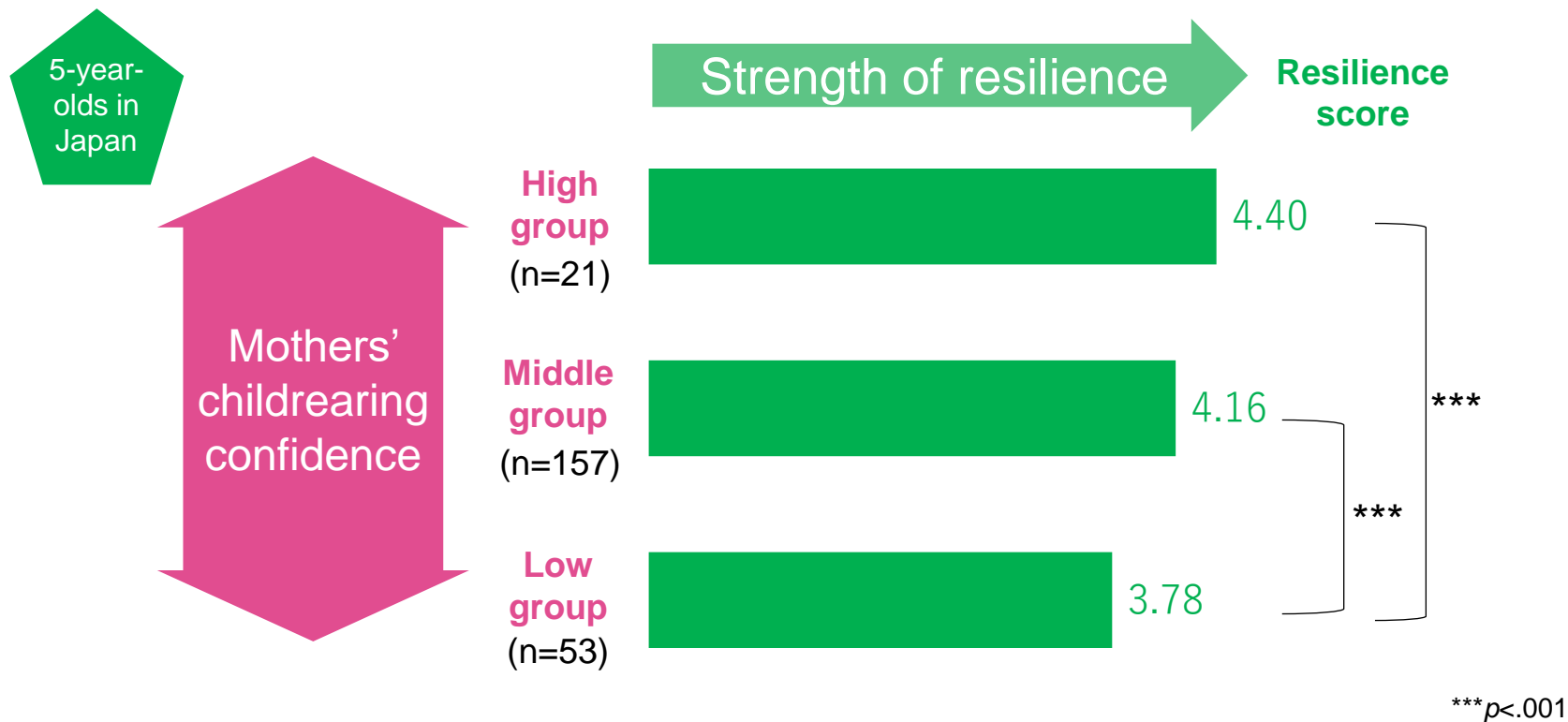
* **Three groups of responsive parenting attitudes:** First, the scores of the following seven factors were aggregated: "I talk to my child in a warm and gentle manner," "We have physical contact," "I respond to my child's needs," "I am proud when my child does something well," "When my child is about to do something, I don't interfere and watch them through to the end (except when it's dangerous)," "I provide an environment where my child can work on what he/she wants to do," and "I provide opportunities for playing and experiencing things that expand my child's interests." And then, the resulting data was almost equally divided into the three groups of "High," "Middle," and "Low" based on the distribution.
* **Resilience scores:** After aggregating the scores of 17 resilience items using the PMK-CYRM-R scale from "Not at all" (1 point) to "Very much so" (5 points), the resulting data was divided by the number of items (distribution range: 1 to 5 points). The above figures are the average values of each group (high, middle, and low responsive parenting attitude groups).

● **Stronger mothers' childrearing confidence indicates higher children's resilience scores**
● **The following shows the analysis result of 5-year-olds data in Japan. Similar results were found in Taiwan, Indonesia, and Thailand.**

5-year-olds in Japan

Mothers' childrearing confidence

Strength of resilience

Resilience score

High group (n=21) — 4.40

Middle group (n=157) — 4.16

Low group (n=53) — 3.78

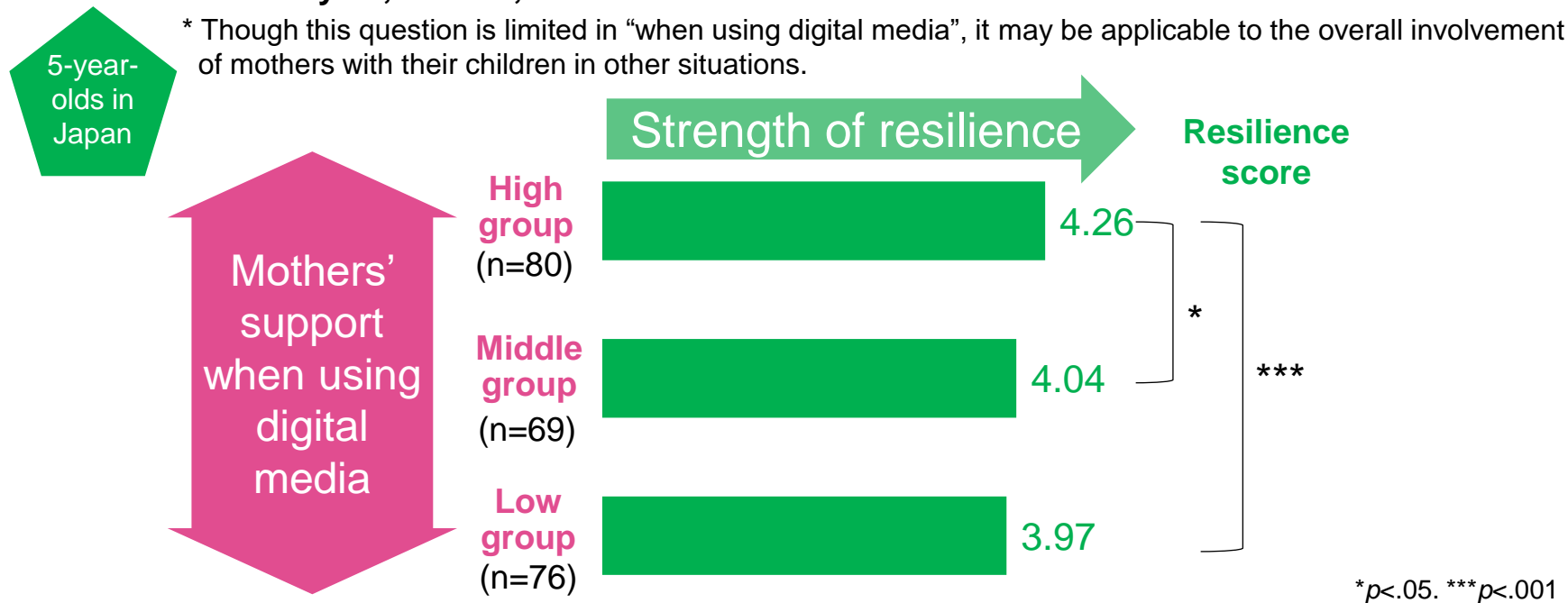***

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***p<.001

* **Three groups of childrearing confidence:** The scores of "I feel my child has grown up fairly well" was divided into three groups: "1. Very much so" = High group; "2. Fairly so" = Middle group; "3. Not so much" and "4. Not at all" = Low group.
* **Resilience scores:** After aggregating the scores of 17 resilience items using the PMK-CYRM-R scale from "Not at all" (1 point) to "Very much so" (5 points), the resulting data was divided by the number of items (distribution range: 1 to 5 points). The above figures are the average values of each group (high, middle, and low Mothers' childrearing confidence groups).

●**Stronger mothers' support when the child is using digital media indicates higher children's resilience scores**

●**The following shows the analysis result of 5-year-olds data in Japan. Similar results were found in Malaysia, Taiwan, and Indonesia.**

* Though this question is limited in "when using digital media", it may be applicable to the overall involvement of mothers with their children in other situations.

5-year-olds in Japan

Mothers' support when using digital media

Strength of resilience

Resilience score

High group (n=80) — 4.26

Middle group (n=69) — 4.04

Low group (n=76) — 3.97

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p<.05. ***p<.001

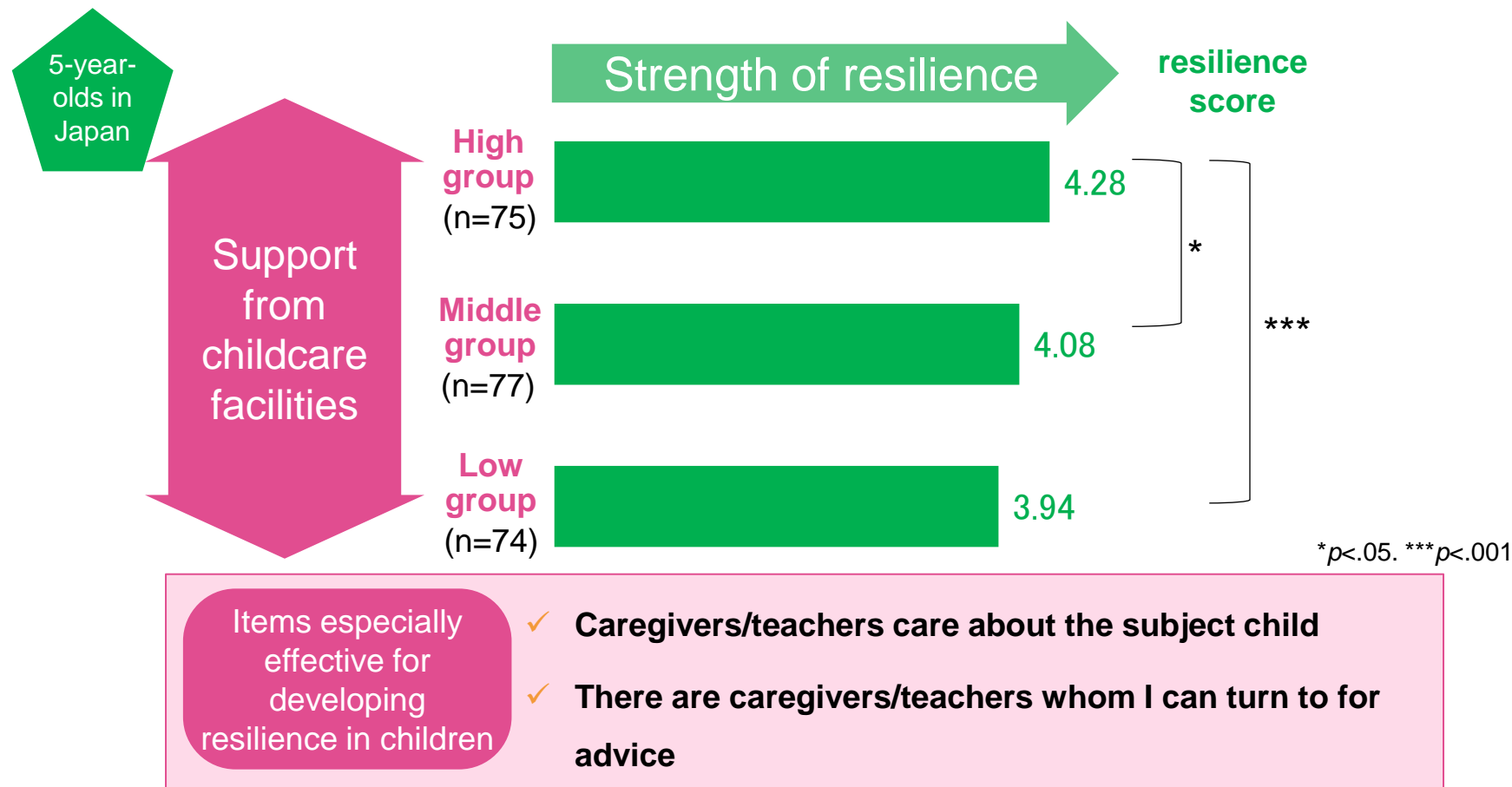**Items especially effective for developing resilience in children**

✓ Parents choose what he/she watches/uses
✓ I keep an eye on my child when he/she is using/watching it
✓ I encourage to decide time length of use/viewing
✓ I support my child so that he/she can do difficult activities

* **Three groups of mother's support**: First, the scores of the following seven factors were aggregated: "Parents choose what he/she watches/uses," "I keep an eye on my child when he/she is using/watching it," "I talk to my child in line with the content my child is using/watching," "I watch/use together with my child," "I encourage to decide time length of use/viewing," "I research together when something he/she does not know comes up," and "I support my child so that he/she can do difficult activities." And then, the resulting data was almost equally divided into the three groups of "High," "Middle," and "Low" based on the distribution.

* **Resilience scores:** After aggregating the scores of 17 resilience items using the PMK-CYRM-R scale from "Not at all" (1 point) to "Very much so" (5 points), the resulting data was divided by the number of items (distribution range: 1 to 5 points). The above figures are the average values of each group (high, middle, and low mothers' support groups).
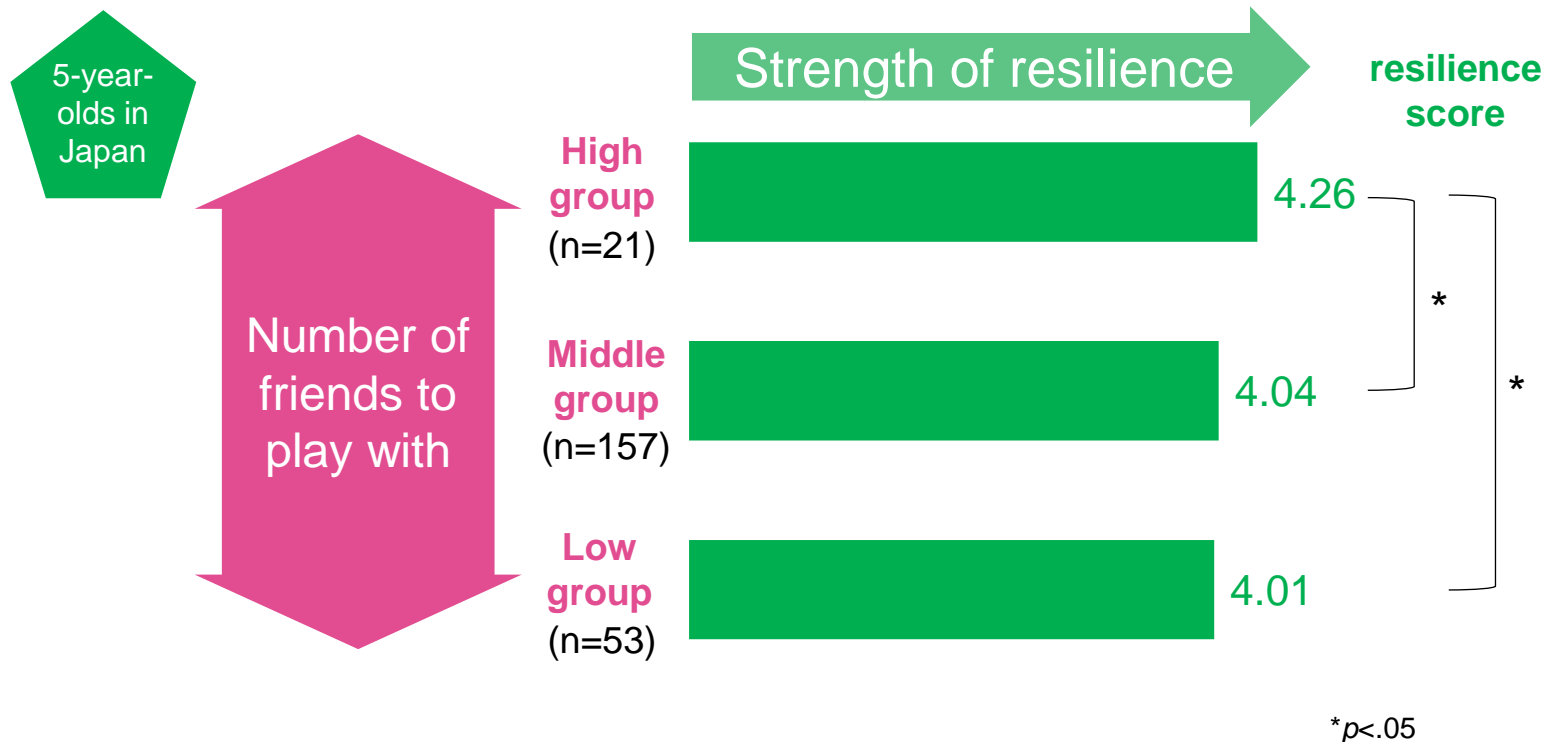
● **Stronger support from childcare facilities indicates higher children's resilience scores**
● **The following shows the analysis result of 5-year-olds data in Japan. Similar results were found in China, Indonesia, Singapore, and Thailand.**

5-year-olds in Japan

Support from childcare facilities

Strength of resilience

resilience score

High group (n=75) — 4.28

Middle group (n=77) — 4.08

Low group (n=74) — 3.94

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*$p<.05$. ***$p<.001$

Items especially effective for developing resilience in children

✓ **Caregivers/teachers care about the subject child**

✓ **There are caregivers/teachers whom I can turn to for advice**

* **Three groups of support from childcare facilities:** First, the scores of the following five factors were aggregated: "Caregivers'/teachers' conversation and involvement with the subject child are warm-hearted," "Caregivers/teachers respect the subject child's feelings," "Caregivers/teachers care about the subject child," "Caregivers/teachers care about you (subject child's mother)," and "There are caregivers/teachers whom I can turn to for advice." And then, the resulting data was almost equally divided into the three groups of "High," "Middle," and "Low" based on the distribution.

* **Resilience scores:** After aggregating the scores of 17 resilience items using the PMK-CYRM-R scale from "Not at all" (1 point) to "Very much so" (5 points), the resulting data was divided by the number of items (distribution range: 1 to 5 points). The above figures are the average values of each group (high, middle, and low caregivers/teachers support groups).

● **The more friends a child has to play with indicates higher children's resilience scores**
● **The following shows the analysis result of 5-year-olds data in Japan. Similar results were found in Indonesia.**

5-year-olds in Japan

Strength of resilience

resilience score

Number of friends to play with

High group (n=21) — 4.26

Middle group (n=157) — 4.04

Low group (n=53) — 4.01

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$*p<.05$

* **Three groups of number of friends to play with:** The scores of "How many friends does your child have whom he/she can play with? (Select one)" was divided into three groups: "4. 5 or more"" = High group; "3. 3-4" = Middle group; "2. 1-2" and "1. None (0)" = Low group.
* **Resilience scores:** After aggregating the scores of 17 resilience items using the PMK-CYRM-R scale from "Not at all" (1 point) to "Very much so" (5 points), the resulting data was divided by the number of items (distribution range: 1 to 5 points). The above figures are the average values of each group (high, middle, and low number of friends to play with groups).

● **Factors effective for developing resilience for 5-year-olds in Japan are effective in other Asian countries**

5-year-olds

Situations in Asian countries about items concerning resilience for 5-year-olds in Japan (◯ indicates items correlated to resilience of children in each country)

	Japan	China	the Philippines	Malaysia	Taiwan	Indonesia	Singapore	Thailand
(1) Mothers' responsive parenting attitude	◯				◯	◯	◯	◯
(2) Mothers' childrearing confidence	◯				◯	◯		◯
(3) Support from childcare facilities/schools	◯	◯				◯	◯	◯
(4) Mothers' support when using digital media	◯			◯	◯	◯		
(5) Number of friends to play with	◯					◯		

Above (1) - (5) are listed in the order of strong correlation with resilience in 5-year-olds in Japan with (1) as the strongest.