**Psychological *Suzhi* Mediates the Longitudinal Association Between**

**Perceived School Climate and Depressive Symptoms**

**Table S1**

*Psychological Suzhi Components, Sample Items, and Factor Loadings*

|  |  |  |
| --- | --- | --- |
| **Subdimensions and Components** | **Sample items** | Factor loadings  |
| T1 | T2 | T3 |
| ***Cognitive Quality*** |  | **.74** | **.75** | **.76** |
| Awareness | I often have a clear plan for the steps I will take when working on assignments.  | .55 | .57 | .56 |
|  | When solving a problem, I am aware of the theories and methods that I have used. | .63 | .66 | .66 |
| Curiosity | I am very interested in new knowledge. | .55 | .56 | .59 |
| Metacognition | I often set up appropriate learning goals and plans. | .66 | .68 | .69 |
| Associative Memory | I am good at making connections between old and new knowledge. | .70 | .71 | .72 |
| Coping Skills | I can adjust my learning approaches when something unexpected happens during learning activities. | .70 | .72 | .78 |
| Divergent Thinking | I am good at seeking solutions to address concerns I have about learning. | .64 | .66 | .68 |
| Resourcefulness | I often select learning approaches that match learning tasks. | .73 | .75 | .75 |
| ***Individuality Quality*** |  | **.91** | **.90** | **.89** |
| Self-regulation | I often remind myself to complete tasks on time. | .61 | .63 | .64 |
|  | I am always strict with myself. | .60 | .65 | .66 |
| Self-control | I can appropriately control the time I spend on entertainments. | .57 | .59 | .63 |
|  | I always complete tasks by the time I am supposed to complete them. | .58 | .61 | .63 |
|  | I always follow my plan. | .58 | .63 | .66 |
| Independence | I often complete tasks independently. | .51 | .56 | .56 |
|  | I can solve problems by myself. | .59 | .59 | .61 |
| Persistence | I don’t let myself become overwhelmed when facing challenges. | .59 | .63 | .63 |
| ***Adaptability Quality*** |  | **.73** | **.76** | **.77** |
| Interpersonal adaptation | I am a popular person. | .59 | .58 | .56 |
|  | I maintain good relationships with my teachers. | .53 | .53 | .55 |
|  | I often can effectively handle awkward situations. | .53 | .55 | .56 |
|  | I get along well with my classmates. | .58 | .61 | .59 |
| Stressful adjustment | I can keep calm when facing high-pressure situations. | .57 | .56 | .56 |
| Societal harmony | I always do well in group activities. | .57 | .59 | .59 |
|  | I adapt well to my current environment and fit in with social groups. | .58 | .61 | .61 |
|  | I often organize and attend different student activities.  | .46 | .46 | .47 |

*Note****.*** All items and factor loadings are significant (*p* < .001). Good model fit was found for psychological *suzhi* based on stronger factor invariance CFA, χ2 (*df* = 2466) = 6030.26, *p* < .001, CFI = .872, TLI = .867, RMSEA = .035, 90% CI [.034, .037], SRMR = .050.

**Table S2**

*Delaware School Climate Survey Items and Factor Loadings*

|  |  |
| --- | --- |
|  | Factor loadings |
| **School Climate items** | T1  | T2  | T3  |
| **Teacher−Student Relationships** | **.84** | **.84** | **.79** |
| Teachers treat students of all races with respect. | .70 | .71 | .63 |
| Teachers care about their students. | .73 | .77 | .74 |
| Teachers listen to students when they have problems. | .73 | .75 | .66 |
| Adults who work here care about the students. | .70 | .73 | .68 |
| Teachers like their students. | .71 | .75 | .69 |
| **Student−Student Relationships** | **.63** | **.65** | **.63** |
| Students are friendly with each other. | .66 | .66 | .65 |
| Students care about each other. | .67 | .64 | .64 |
| Students respect others who are different | .52 | .56 | .55 |
| Students treat each other with respect. | .82 | .83 | .82 |
| Students get along with each other. | .78 | .77 | .82 |
| **Fairness of Rules** | **.79** | **.82** | **.78** |
| The school rules are fair. | .71 | .68 | .71 |
| The consequences of breaking rules are fair. | .68 | .68 | .68 |
| The school’s Code of Conduct is fair. | .78 | .75 | .76 |
| Classroom rules are fair. | .69 | .65 | .69 |
| **Clarity of Expectations** | **.63** | **.71** | **.66** |
| Rules are made clear to students. | .60 | .65 | .61 |
| Students know how they are expected to act. | .39 | .42 | .36 |
| Students know what the rules are. | .55 | .59 | .53 |
| It is clear how students are expected to act. | .34 | .59 | .52 |

*Note*. All items and factor loadings are significant (*p* < .001). Good model fit was found for perceived school climate based on stronger factor invariance CFA, χ2 (*df* = 1323) = 2666.00, *p* < .001, CFI = .919, TLI = .913, RMSEA = .030, 90% CI [.028, .031], SRMR = .048.

**Table S3**

*The Measurement of Depressive Symptoms*

|  |  |
| --- | --- |
|  | Factor loadings |
| **Depressive Symptoms items** | T1 | T2 | T3 |
| I felt depressed. | .72 | .74 | .74 |
| I cried easily. | .58 | .57 | .55 |
| I felt hopeless about the future. | .71 | .72 | .70 |
| I often blame myself. | .71 | .77 | .74 |
| I often feel listless. | .69 | .70 | .70 |
| I often had suicidal thoughts. | .54 | 53 | .57 |

*Note****.*** All items and factor loadings are significant (*p* < .001). Good model fit for depressive symptoms based on stronger factor invariance CFA, χ2 (*df* = 136) = 211.32, *p* < .001, CFI = .986, TLI = .984, RMSEA = .022, 90% CI [.016, .028], SRMR = .029.

**Table S4**

*Longitudinal Confirm Factors Analyses*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | χ2 (*df*) | ΔCFI | Δ*TLI* | RMSEA [90% CI] | CFI | TLI | SRMR | Retain? |
| Perceived school climate a |  |  |  |  |  |  |  |  |
| 1. Configural invariance model | 2474.35 (1259) | — | — | 0.029 [0.027, 0.031] | 0.927 | 0.917 | 0.043 | Yes |
| 2. Weak invariance model | 2495.63 (1287) | 0.000 | 0.002 | 0.029 [0.027, 0.030] | 0.927 | 0.919 | 0.044 | Yes |
| 3. Strong invariance model | 2666.00 (1323) | 0.008 | 0.006 | 0.030 [0.028, 0.031] | 0.919 | 0.913 | 0.048 | Yes |
| Psychological *suzhi* b |  |  |  |  |  |  |  |  |
| 4. Configural invariance model | 5860.73 (2376) | — | — | 0.036 [0.035, 0.037] | 0.874 | 0.865 | 0.048 | Yes |
| 5. Weak invariance model | 5903.72 (2418) | 0.000 | 0.002 | 0.035 [0.034, 0.037] | 0.874 | 0.867 | 0.050 | Yes |
| 6. Strong invariance model | 6030.26 (2466) | 0.002 | 0.000 | 0.035 [0.034, 0.037] | 0.872 | 0.867 | 0.050 | Yes |
| Depressive symptom c |  |  |  |  |  |  |  |  |
| 7. Configural invariance model | 125.21 (114) | — | — | 0.009 [0.000, 0.018] | 0.998 | 0.997 | 0.022 | Yes |
| 8. Weak invariance model | 134.97 (124) | 0.000 | 0.000 | 0.009 [0.000, 0.017] | 0.998 | 0.997 | 0.024 | Yes |
| 9. Strong invariance model | 211.32 (136) | 0.002 | 0.003 | 0.022 [0.016, 0.028] | 0.986 | 0.984 | 0.029 | Yes |

a = Four−factor model of perceived school climate (Teacher−student Relationships, Student−student Relationships, Rules and Fairness, Clarity of Expectations).

b = Three−factor model of psychological *suzhi*, which includes *Cognitive quality, Individuality quality, and Adaptation quality*.

c = depressive symptom, which includes six items.

**Table S5**

*Zero−order* correlations among main variables across three−time points

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1. T1\_Perceived school climate | − |  |  |  |  |  |  |  |  |
| 2. T1\_Psychological *suzhi* | .35\*\* | − |  |  |  |  |  |  |  |
| 3. T1\_Depressive symptoms | −.15\*\* | −.25\*\* | − |  |  |  |  |  |  |
| 4. T2\_Perceived school climate | .60\*\* | .31\*\* | −.22\*\* | − |  |  |  |  |  |
| 5. T2\_Psychological *suzhi* | .29\*\* | .57\*\* | −.26\*\* | .45\*\* | − |  |  |  |  |
| 6. T2\_Depressive symptoms | −.20\*\* | −.21\*\* | .58\*\* | −.26\*\* | −.31\*\* | − |  |  |  |
| 7. T3\_Perceived school climate | .55\*\* | .20\*\* | −.19\*\* | .62\*\* | .27\*\* | −.24\*\* | − |  |  |
| 8. T3\_Psychological *suzhi* | .26\*\* | .56\*\* | −.26\*\* | .30\*\* | .61\*\* | −.27\*\* | .29\*\* | − |  |
| 9. T3\_Depressive symptoms | −.19\*\* | −.23\*\* | .56\*\* | −.21\*\* | −.28\*\* | .63\*\* | −.26\*\* | −.32\*\* | − |
| 10. Age | .03 | .06 | −.01 | .03 | −.01 | .01 | .01 | .02 | −.02 |
| 11. Gender (1=boy; 0=girl) | −.03 | .13\*\* | −.15\*\* | .03 | .14\*\* | −.16\*\* | .05 | .18\*\* | −.28\*\* |
| 12. Family economic incomes | .03 | −.02 | −.06 | −.02 | .03 | −.01 | .05 | −.04 | −.03 |
| *M* | 2.69 | 3.29 | 2.30 | 2.67 | 3.29 | 2.23 | 2.79 | 3.30 | 2.18 |
| *SD* | 0.45 | 0.52 | 0.78 | 0.44 | 0.52 | 0.74 | 0.36 | 0.51 | 0.67 |

*Note.* T1 = Time 1, T2 = Time 2, T3 = Time 3. Age, gender, and family economic incomes were measured in Time 1 and these variables are considered to covariates.

\*\**p* < .01