**Appendix**

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| **Table 1 Factor loadings of perceived threat items among college students (N=2205)** | | | | |
| **Perceived threat (Items)** | **N(%)** | **Factor1 Impact on life planning** | **Factor2 Impact of PHEIC** | **Factor3 Risk of infection** |
| I feel anxious and scared when thinking of COVID-19 | 209(9.48) | 0.14 | 0.07 | 0.85 |
| I feel that I can be infected by the virus anytime and anywhere | 233(10.57) | 0.09 | 0.07 | 0.88 |
| Worried about being infected and sick | 202(9.16) | 0.07 | 0.03 | 0.84 |
| Worried that the epidemic will affect my study plan | 1525(69.16) | 0.84 | 0.10 | 0.04 |
| Worried that the epidemic will affect my test plan | 1334(60.50) | 0.88 | 0.12 | 0.05 |
| Worried that the epidemic will affect my social plan | 794(36.01) | 0.67 | 0.11 | 0.15 |
| Worried that the epidemic will affect my work plan | 1196(54.24) | 0.86 | 0.14 | 0.11 |
| Worried about the closure of tourism and/or trade, affecting international cooperation and exchanges | 1186(53.79) | 0.12 | 0.88 | 0.05 |
| Worried about the lack of goods due to the interruption of import and export logistics | 1122(50.88) | 0.12 | 0.92 | 0.06 |
| Worried about rising prices and rising exchange rates | 1209(54.83) | 0.16 | 0.86 | 0.07 |
| Eigenvalue |  | 3.65 | 1.97 | 1.79 |
| Cumulative % of variance explained |  | 36.46% | 56.18% | 74.06% |
| Cronbach's alpha |  | 0.84 | 0.88 | 0.83 |
| Exploratory factor analysis, using principle component analysis for factor extraction（with varimax rotation).  Factor 1-3 addressed threat due to pandemic impact and perceived risk (KMO=0.77) | | | | |
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| **Table 2 Pearson correlation between perceived threat and DASS-21 scale (N=2205)** | | | | | | |
| **Variables** | **Depression** | | **Anxiety** | | **Stress** | |
|  | ***β*(95%CI)** | ***p*** | ***β*(95%CI)** | ***p*** | ***β*(95%CI)** | ***p*** |
| **Perceived threat** | 1.30(1.11, 1.49) | 0.000 | 1.15(1.00, 1.30) | 0.000 | 1.65(1.46, 1.85) | 0.000 |
| **Risk of infection** | 1.01(0.87, 1.14) | 0.000 | 0.98(0.88, 1.09) | 0.000 | 1.30(1.16, 1.44) | 0.000 |
| **Impact on life planning** | 0.53(0.41, 0.66) | 0.000 | 0.43(0.32, 0.52) | 0.000 | 0.65(0.52, 0.78) | 0.000 |
| **Impact of PHEIC** | 0.45(0.30, 0.60) | 0.000 | 0.37(0.25, 0.49) | 0.000 | 0.59(0.43, 0.75) | 0.000 |

The Chinese brief version of the Depression, Anxiety, and Stress Scale (DASS-21) consists of three subscales (each with 7 items) measuring depression, anxiety, and stress, and higher scores denote a greater severity of psychological symptoms. The DASS-21 has been validated in Chinese populations and the Chronbach’s alpha of 0.83, 0.80, and 0.82 for the Depression, Anxiety, and Stress subscales, respectively, and 0.92 for the total DASS [1, 2]. Taking the DASS-21 scale as a reference, the perceived risk and its three dimensions obtained in this study are all positively related to it, which further determines the content and validity of the perceived threat.

Reference

1. Wang K, Shi HS, Geng FL, et al. **Cross-cultural validation of the Depression Anxiety Stress Scale-21 in China.** Psychol Assess. 2016 May;28(5):e88-e100. doi: 10.1037/pas0000207.

[2] Lovibond PF, Lovibond SH. **The structure of negative emotional states: comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories.** Behav Res Ther. 1995 Mar;33(3):335-43. doi: 10.1016/0005-7967(94)00075-u.