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Mental resilience, perceived health, and immune status

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Introduction

Mental resilience can be seen as a trait that enables an individual to recover from stress and to face the next stressor with optimism. People with resilient traits are considered to have a better mental and physical health. However, there is limited data available assessing the relation between resilient individuals and their perspective of their health and immune status. Therefore, this study was conducted to examine the relationship between mental resilience, perceived health and immune status.

Methods and Materials

A survey was conducted among healthy young Dutch adults aged 18-40 years old. Mental resilience was assessed using the Brief Resilience Scale (BRS) [1]. The BRS consists of six items that can be answered using a 5-point Likert scale ranging from strongly disagree to strongly agree. An average mental resilience score is computed ranging from 0 to 6, with higher scores implying stronger mental resilience. Perceived immune functioning and perceived health status was scored from 0 (very poor) to 10 (excellent), using single item questions. In addition, the Immune Function Questionnaire (IFQ) was completed [2]. The IFQ includes 19 items on weakened immune system functioning, such as sore throat, flu, cold sores, ear infection, and sudden high fever. The frequency of these immune related illnesses (Never = 0, Once or twice, = 1, Occasionally = 2, Regularly = 3, Frequently = 4) was scored on a 5-point Likert scale. The overall IFQ-score ranges from 0 to 76, with higher scores implying worse immune functioning.

Results

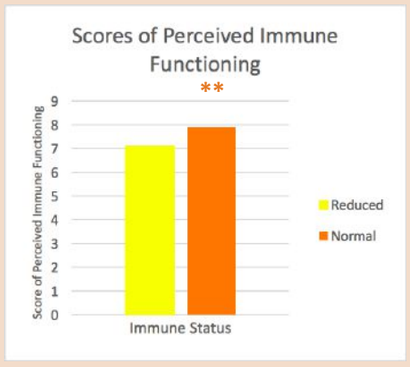

Figure 1. Scores of perceived immune functioning were found to be significantly lower in participants indicating reduced immunity, compared to a normal immune status (p=0.0001).

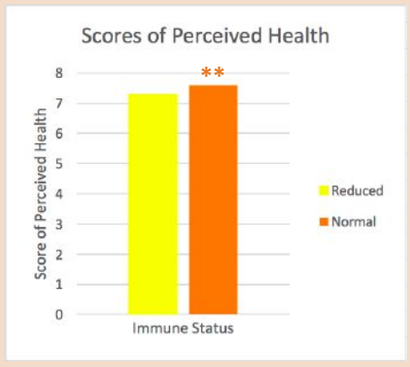

Figure 2. In participants with a reduced immune status, scores of perceived health were found to be significantly lower than in participants indicating a normal immune status (p=0.001).

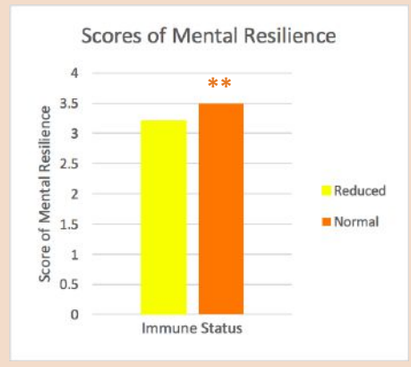

Figure 3. Participants indicating a reduced immune status were found to have significantly lower scores of mental resilience than participants indicating normal immune functioning (p=0.005).

	Overall	Men	Women
Perceived Health			
p-value	0.0001	0.036	0.0001
r-value	0.254***	0.166*	0.285**
Perceived Immune Functioning			
p-value	0.0001	0.017	0.003
r-value	0.210***	0.188*	0.180**
IFQ Immune Score			
p-value	0.0001	0.003	0.013
r-value	-0.236***	-0.241**	-0.160*

Table 1. Correlations of mental resilience with the factors perceived health, perceived immunity, and the IFQ immune score. Significance and correlational values are given for the overall population, and for men and women separately. Scores of mental resilience are found to be significantly correlated to all factors in the overall population, as well as in men and women separately.

Discussion

The findings of this study suggest a clear association between mental resilience, immune functioning, and perceived health. These results support the hypothesis of resilient individuals having a better perspective of their overall health and immune status. Additionally, a negative correlation between the score of mental resilience and the IFQ was found, indicating that resilient individuals also have a better functioning immune system

References

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Disclosure of interest
This study was supported by Utrecht University. Joris Verster has received grants/research support from the Dutch Ministry of Infrastructure and the Environment, Janssen Research and Development, Nutricia, Red Bull and Takeda, and has acted as a consultant for the Canadian Beverage Association, Centraal Bureau Drogisterijbedrijven, Coleman Frost, Danone, Deenox, Eisai, Janssen, Jazz, Purdue, RedBull, Sanofi-Aventis, Sen-Jam Pharmaceutical, Sepracor, Takeda, Transcept, TrimbosInstitute, and Vital Beverages.
Johan Garssen is part-time employee of Nutricia Research. The other authors have no potential conflicts of interest to disclose.