

# Personality Traits and Burnout Among Athletic Trainers Employed in the Collegiate Setting

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**Context:** Burnout, a psychological state of mental weariness that occurs when work stresses become overwhelming, has frequently been documented in athletic trainers and has been hypothesized to affect professional retention. Experiences of burnout may be influenced by individual-level factors such as gender or personality, though few researchers have investigated such interactions in athletic trainers.

**Objective:** To investigate the relationship between personalities, as measured by the Big Five Personality Inventory, and burnout.

**Design:** Cross-sectional study.

**Setting:** Online Web-based survey.

**Patients or Other Participants:** A total of 189 athletic trainers working in the collegiate setting, 65 men (34.4%) and 124 women (65.6%), with an average of  $5 \pm 3$  years certified and  $2.5 \pm 2$  years working in their current position.

**Main Outcome Measure(s):** Data were collected using a Web-based survey instrument consisting of 3 sections: (1) demographics, (2) burnout survey, and (3) Big Five Personality Inventory. Likert responses for the burnout score were summed. Independent *t* tests, Pearson correlations, and multiple regres-

sions were calculated to evaluate the relationships between demographics and burnout and between burnout and personality.

**Results:** This group of athletic trainers experienced moderate burnout, regardless of gender. A weak negative correlation was present between burnout score and both agreeableness and extraversion. A weak positive correlation existed between burnout and neuroticism. These variables did not predict burnout scores; only neuroticism added significantly to the weak predictive value. Personality explained only 17.3% of the variability in burnout scores.

**Conclusions:** Our study confirms the findings of previous researchers highlighting moderate burnout in athletic trainers employed in the collegiate setting. We did not find that personality significantly predicted burnout, though it did account for a small amount of the variance in burnout scores. Thus, organizational-level factors may play a greater role in determining burnout in athletic trainers than individual-level factors such as personality.

**Key Words:** Big Five Inventory, individual factors, stress

## Key Points

- Athletic trainers in the collegiate setting experienced moderate burnout, most likely due to a blend of organizational and individual factors.
- Personality as measured by the Big Five Inventory accounted for a small portion of the variance in burnout scores, suggesting that work conditions may play a greater role in burnout.
- Athletic trainers with higher levels of neuroticism were more susceptible to burnout.

Discussions of burnout are common in athletic training, particularly because of the role the athletic trainer (AT) has in health care and sport. In fact, burnout has been reported to affect athletic training students,<sup>1,2</sup> graduate assistant ATs,<sup>3</sup> ATs in the collegiate and secondary school settings,<sup>4-9</sup> and program directors.<sup>10</sup> Burnout is defined as a psychological state of mental weariness that often occurs when work stresses become too much for an individual to handle.<sup>5,11</sup> The condition is the combination of 3 distinct dimensions: emotional exhaustion, depersonalization, and decreased personal accomplishment.<sup>12</sup> The burnout model, as described by Maslach and Jackson,<sup>12</sup> illustrates the development of a chronic state of physical and emotional depletion that is accompanied by a reduction in care for clients or patients as well as a negative evaluation of one's worth or accomplishments.<sup>13</sup> Among ATs, those who are burnt out mostly exhibit

emotional exhaustion as compared with depersonalization and decreased personal accomplishment.<sup>5,6,10</sup>

The amount of burnout research within athletic training is likely due to its association with professional commitment, career longevity, and retention within the field, from both theoretical and empirical perspectives.<sup>14,15</sup> Athletic trainers, especially those in the largest setting, college,<sup>16</sup> often work long hours (60+ per week), accompanied by required travel and often minimal control over their weekly work schedule.<sup>17-20</sup> These factors are organizational in nature and have been linked to experiences of burnout among ATs.<sup>7,14</sup> The time-intensive nature of the profession coupled with the demands of the work setting<sup>4,7,19,21</sup> inherently provide the platform for increased susceptibility to burnout. Interestingly, however, in a recent publication, Naugle et al<sup>9</sup> observed that despite working more hours, male ATs reported lower levels of burnout compared with

female ATs. This could suggest that burnout may not manifest solely because of organizational factors related to an AT's workplace environment and job expectations but rather because of individualized or personal factors. Giving more credence to the idea that burnout and other professional issues can be influenced by individualized factors is the recent finding that several personality traits can influence the level of job satisfaction.<sup>22</sup> Those who react to stressful situations with emotional instability (ie, neuroticism) are more likely to be less satisfied with their jobs.

Dixon and Bruening<sup>23</sup> and Bruening and Dixon<sup>24</sup> suggested that experiences of work-family conflict develop because of a myriad of factors, including those that are facilitated by a blend of organizational and individual influences. Similar to burnout, work-family conflict is a phenomenon that develops because of increased stress: in the case of work-family conflict, the stress relates to a mix of work and life expectations. Thus, it is possible that burnout can occur because of individual influences such as personality. Maslach et al<sup>25</sup> acknowledged that the workplace may be the cause of the stressors for an individual but also that individuals bring certain characteristics to the workplace, including personality characteristics and attitudes about their job, that may be factors in their level of burnout. Several facets of personality, including emotional stability, affectivity, and personality type, have been investigated in allied health professionals.<sup>26</sup>

One model that has been used to measure personality is the Big Five Factors of Personality.<sup>27</sup> The 5 factors that define the model are openness, extraversion, agreeableness, neuroticism, and conscientiousness.<sup>27</sup> Of the 5 factors, openness is the only personality factor that does not have a reported relationship to burnout.<sup>28</sup> Extraversion, agreeableness, and conscientiousness are reported to be negatively related to burnout, whereas neuroticism is positively related to the condition.<sup>11</sup>

Despite the growing examination of personality and burnout, there is a current paucity of research investigating the relationship in ATs. We hypothesized that extraversion, agreeableness, and conscientiousness would be negatively correlated with burnout. In contrast, we proposed that neuroticism would be positively correlated with burnout. Finally, we hypothesized that openness would not correlate with burnout.

## METHODS

We used a cross-sectional design to gain information regarding burnout and its relationship to personality. Selection of an online Web-based survey was purposeful to engage a geographically diverse group of respondents, reduce cost, and allow the researchers to download data directly into analytic software to reduce recording error.

### Participants

We gained access to 1000 participants' e-mail addresses through the National Athletic Trainers' Association (NATA) membership services. A total of 251 responses were received. All participants were ATs classified by the NATA as working in the collegiate setting. Of the respondents 189 completed all sections of the online survey instrument, including demographic questions, for a re-

sponse rate of 18.9%. Our sample comprised 65 men (34.4%) and 124 women (65.6%).

### Demographic Data

Our participants' years of certification ranged from 0 to 11, with an average of  $5 \pm 3$  years. Their years working in their current position ranged from 0 to 10, with an average of  $2.5 \pm 2$  years. The majority of our participants (78.3%) had obtained a master's degree as their highest degree; 2.1% had a bachelor's degree, 1.1% had a PhD, 1.1% had an EdD, and 2.1% listed their highest degree as *other*. Most (58.2%) of our participants were single; 25.2% were married, 13.8% were living with their significant other, 0.5% were divorced, and 2.1% classified their relationship status as *other*. Our participants represented all 10 NATA districts, with the largest number (17.5%) employed in District 4.

### Instrumentation

Data were collected using a Web-based survey instrument housed on SurveyMonkey (SurveyMonkey Inc, Palo Alto, CA). The survey consisted of 3 individual sections: demographics, personality, and burnout.

**Demographics.** The third section of the survey contained items pertaining to personal and professional demographic information. Examples of this information collected include sex, age, highest level of education, marital status, number of years certified, current position held, years of experience, salary, combined family income, hours worked in season and out of season, monthly travel and sport assignment, number of staff ATs, number of athletes receiving care, and NATA district.

**Big Five Personality Traits.** We used the Big Five Inventory (BFI) to assess personality traits of our sample of ATs working in the Division I setting. The BFI is categorized by openness to experience, extraversion, agreeableness, neuroticism (often referred to as emotional instability), and conscientiousness. A brief summary of each personality factor measured by the BFI is in Table 1. The BFI measures the 5 domains of personality using 44 characteristics formulated as statements about oneself and rated on a 5-point scale ranging from 1, *disagree strongly*, to 3, *neither*, to 5, *agree strongly*. The reliability coefficients for the BFI subscales have been consistently reported as strong. A comparison of reliability coefficients for the current study with the findings of John et al<sup>29</sup> is in Table 2.

*Openness* describes a person's intellect and receptiveness to culture. Traits include broad-mindedness, originality, and imagination.<sup>29</sup> Openness is measured by 10 items, which include "is inventive," "is curious about many different things," and "has an active imagination." Scale scores were calculated by taking the mean of the items for a given trait, such that higher scores meant more of the trait. *Extraversion* includes traits such as assertiveness, talkativeness, activeness, and sociability.<sup>29</sup> This subscale contained 8 items, and respondents were asked to determine if descriptors such as the following applied to them: "assertive personality," "is sometimes shy," or "is outgoing, sociable." The third dimension, *agreeableness*, is viewed as degree of friendliness.<sup>29</sup> Traits defining this dimension include cooperativeness, trust, tolerance, and soft-heartedness. Agreeableness is evaluated by 9 items,

**Table 1. Big Five Personality Factors**

Openness	Extraversion	Agreeableness	Neuroticism	Conscientiousness
Defined by a person's imagination and independence, with characteristic traits including intelligence, imagination, and curiosity. Individuals who score highly in openness to experiences are portrayed as intellectually curious, open to emotion, interested in art, and willing to try new things.	Describes someone who is outgoing, energetic, demonstrates positivity and assertiveness, and seeks the company of others. Extraverts, thus, often experience less fatigue, are able to have more energy for multiple roles, and view role occupation as beneficial.	Portrayed as someone who is cooperative, forgiving, likeable, kind, sympathetic, and trustful. Fundamentally, agreeable people want harmony and value getting along with others, and as such, have very humanistic natures.	Traditionally refers to those who demonstrate unpleasant, irrational emotions easily, such as anger, anxiety, depression, and worry. Often those with high scores experience more concerns related to job and family stress.	Individuals who demonstrate high levels of conscientiousness are efficient time managers, careful planners, and organizers. Often, these individuals demonstrate lower levels of conflict, as they are able to use their time wisely through time management.

including “is sometimes rude to others,” “can be cold and aloof,” and “likes to cooperate with others.” The next dimension, *neuroticism*, references a person’s stability; traits include anxiousness, depression, anger, and insecurity. Eight items are used to determine a respondent’s level of neuroticism, including assessments such as “worries a lot,” “gets nervous easily,” and “is emotionally stable, not easily upset.” *Conscientiousness* has also been portrayed as conformity or dependability, with characteristics including achievement orientation, responsibility, thoughtfulness, and organization.<sup>29</sup> The 9 items in this subscale include “tends to be lazy,” “is easily distracted,” and “makes plans and follows through.”

**Burnout.** We used a short self-report burnout scale, initially created and validated by Mazerolle et al,<sup>17,18</sup> that reflected measures first used by Netemeyer et al<sup>30</sup> when validating an instrument to measure levels of work-family conflict and various constructs such as burnout, job satisfaction, and turnover. The questions were developed by Mazerolle et al<sup>3</sup> when measuring the effect of work-family conflict on several outcome variables and before the development of a more specific athletic training burnout measurement. A short-measure scale of burnout was necessary as a means to reasonably measure the concept in our study.

Burnout was scored using a 6-point Likert scale ranging from 1 (*never true*) to 6 (*always true*). The Likert anchors reflect the modifications used by Clapper and Harris<sup>4</sup> in the development of a more specific instrument to measure burnout in ATs. The minimum score was 6 and the maximum score was 36. A score between 6 and 15 indicates a low level of burnout, a score between 15 and 25 represents a moderate level of burnout, and a score between 26 and 36 indicates a high level of burnout.<sup>17,18</sup> With the current data, our verification of the instrument’s internal consistency revealed a Cronbach  $\alpha$  of .89.

**Table 2. Big Five Inventory Reliability Coefficient Comparison**

Subscale	Current Study	John et al <sup>29</sup>
Openness	0.75	0.83
Extraversion	0.89	0.86
Agreeableness	0.77	0.79
Neuroticism	0.82	0.87
Conscientiousness	0.80	0.82

## Data-Collection Procedures

Upon institutional review board approval from the University of South Carolina, we began e-mailing potential respondents. The e-mail invitation included the purpose of the study, a brief description of the survey, a description of how consent would be obtained, and a link to a Web site URL, where participants could complete an online survey (Survey-Monkey Inc). Consent was implied by initiating the survey.

We began data collection in early January. Two weeks after we sent the initial e-mail, a reminder e-mail was sent to all potential participants. A third e-mail reminder was sent 4 weeks after the initial solicitation to help increase our overall response rate. We concluded data collection after the third e-mail, which we sent in late February.

## Data Analysis

Data were analyzed using SPSS statistical software (version 21; IBM Corporation, Armonk, NY). The Cronbach  $\alpha$  was calculated for each of the BFI personality trait scores (Table 2). Likert responses for the burnout scale were summed to provide a score for each participant. We conducted an independent *t* test to determine if there were any differences between the burnout scores of men and women. To test the correlation of burnout scores and personality, we estimated Pearson correlation coefficients. We also included demographic variables in our correlation analysis to determine if any of those should be included in a multiple regression. We selected these variables based on our knowledge of the literature and those items often linked to professional concerns such as burnout, job satisfaction, and work-life balance. Demographic variables included in the correlation analysis were gender, age range, highest level of education, marital status, number of years certified (mean = 4.9  $\pm$  2.7), personal income, combined family income, number of weekly hours worked in season (mean = 56.3  $\pm$  14.5), number of weekly hours worked out of season (mean = 40.9  $\pm$  16.7), average number of hours spent traveling each month (mean = 6.7  $\pm$  6.0), number of staff ATs (mean = 4.2  $\pm$  3.3), number of athletes receiving care (mean = 114.8  $\pm$  101.4), and NATA district. Once we had correlation data, we ran a multiple regression on those personality and demographic variables that showed a significant correlation with burnout score. Initially we performed a multiple regression including only extraversion

sion, agreeableness, and neuroticism as predictors of burnout. We then calculated a hierarchical regression, adding each demographic variable that correlated with the burnout score: years certified, personal income, and number of hours worked in season.

## RESULTS

On average, participants were experiencing moderate burnout (mean =  $17.2 \pm 5.76$ ; range, 6–32). No gender differences regarding burnout were identified ( $F = 1.234$ ,  $P = .736$ ; 95% confidence interval [CI] =  $-2.43, 1.44$ ). Pearson correlations demonstrated significant but weak correlations between burnout score and extraversion, agreeableness, and neuroticism. Both extraversion ( $-0.229$ ,  $P = .002$ ) and agreeableness ( $-0.245$ ,  $P = .001$ ) were negatively correlated with burnout, whereas neuroticism ( $0.385$ ,  $P < .001$ ) was positively correlated with burnout. Additionally, we found that number of years certified ( $0.268$ ,  $P < .001$ ), personal income ( $0.160$ ,  $P = .028$ ), and number of hours worked in season ( $0.302$ ,  $P < .001$ ) positively correlated with burnout. Based on the correlations, we conducted a multiple regression to predict burnout score from extraversion, agreeableness, and neuroticism. These variables ( $F_{3,185} = 12.9$ ,  $P < .05$ ,  $R^2 = 0.173$ ) did not statistically predict burnout scores. Only neuroticism added statistical significance to the weak prediction ( $P < .001$ ,  $\beta = .298$ ). The  $F$  value shows the model was a good fit for the data, but  $R^2$  shows that our personality independent variables explained only 17.3% of the variability in the burnout score. Therefore, although 3 of the personality factors were weakly correlated with burnout scores, the BFI did not seem to predict burnout in ATs. When we completed the hierarchical regression adding number of years certified, personal income, and number of hours worked in season, the  $R^2$  value increased to 0.318. By performing the hierarchical regression, we determined that number of hours worked in season created the largest increase in our  $R^2$  value from 0.173 to 0.266. In this model, the coefficients showed that the number of years certified ( $P < .001$ ,  $\beta = .266$ ) and number of hours worked in season ( $P < .001$ ,  $\beta = .343$ ) added statistical significance to the model.

## DISCUSSION

We sought to estimate the relationship between personality and burnout in ATs. Currently, the literature supports the idea that professional concerns in collegiate athletics can be viewed as multifactorial,<sup>23,24</sup> yet most researchers in athletic training have examined these concerns from an organizational perspective or a singular lens (ie, only 1 factor). Mazerolle and Eason<sup>31</sup> suggested that work-life conflict can manifest because of individual factors; thus, it is possible that experiences of burnout can be mitigated by personality, a factor identified within the multifactorial framework. We hypothesized that extraversion, agreeableness, and conscientiousness would be negatively correlated with burnout and that neuroticism would be positively correlated with burnout. We were able to partially support these hypotheses.

Our participants demonstrated moderate burnout, which aligns with the results of other researchers who found that ATs<sup>4,9,14</sup> and athletic training students<sup>1,2</sup> experienced burnout. Organizational factors such as hours worked, time spent traveling, and work-family conflict may contribute to ATs feeling burnt out.<sup>6,18</sup> Similarly to Clapper and Harris,<sup>4</sup>

we did not discover any gender differences in burnout scores, though this does differ from the recent findings of Naugle et al,<sup>9</sup> who observed higher burnout scores in women than in men. However, our study is the first we know of to have examined burnout through a lens outside of the organization itself, focusing instead on the individual context of personality. We can conclude that personality does play a small role in the development of burnout in ATs.

### Personality Traits Negatively Correlated With Burnout

Our hypothesis was that extraversion and agreeableness would be negatively correlated with burnout. This was true: as scores in extraversion and agreeableness increased, burnout scores declined, though the correlation was weak. An individual exhibiting a high level of extraversion is likely active and sociable<sup>29</sup> as well as happy and enthusiastic.<sup>27</sup> Extraverts are optimistic by nature and perceive less stress; thus, they are able to resist burnout.<sup>32</sup> Similarly, an individual scoring high in agreeableness is viewed as friendly and cooperative.<sup>29</sup> Agreeable individuals get along well with others.<sup>32</sup> Both of these traits can be linked to how individuals view and experience their work environment and those they work with. Extraverts may experience less burnout because they have a positive perception of their work and may experience positive relationships at work because their cheerful disposition elicits a positive response from others. Agreeable coworkers may be similarly well liked by their colleagues and therefore experience a positive work environment, making individuals with one or both personality traits less susceptible to burnout.<sup>32,33</sup>

The ATs in our study were predominantly 20 to 30 years old; this depicts the youth of those working in athletic training today, a factor that has been anecdotally and empirically found to characterize the profession.<sup>17,18,34</sup> That is, the profession appears to be attractive, yet many leave for various reasons, as demographics indicate that after the age of 50, there is a general decline in membership.<sup>34</sup> Young professionals working as ATs are members of the millennial generation,<sup>35</sup> which exhibits higher levels of extraversion than previous generations. Previous research<sup>36</sup> on the millennial generation in athletic training has determined that these individuals are optimistic, are collaborative, and prefer to work in groups. They are happy to contribute to a team effort and, in fact, are more motivated and committed to a task when engaged in a cohesive group setting, such as the athletic environment. Similarities can be seen between the characteristics of the millennial generation and the personality traits of extraversion and agreeableness, perhaps providing context for the results presented here. Moreover, despite millennial workers experiencing burnout, they appear to be more optimistic about finding other positions or roles and have a more flexible mindset about the job market.<sup>37</sup> So it may be that ATs fit the descriptors of extraverts and agreeable individuals, which may mitigate the negative effect workplace stress can have on the person.

### Personality Traits Positively Correlated With Burnout

Our hypothesis that neuroticism would be positively correlated with burnout was confirmed, though it was a weak correlation; as neuroticism increased, so did an individual's burnout score. A person scoring high in

neuroticism displays traits such as anxiety, insecurity, and a low level of emotional stability. These individuals often dislike challenges at work, which they perceive as threatening and stress inducing.<sup>33</sup> A high level of neuroticism has been found to result in greater exhaustion and depersonalization, 2 constructs of burnout, in nurses.<sup>32</sup> Zellars et al<sup>32</sup> also contended that among nurses, given their heightened response to adverse situations, those scoring higher in neuroticism respond more negatively to situations that are stressful, thereby providing a firm link between personality and work conditions and environments. Thus, a work environment such as athletic training that can present a variety of challenging situations, including varied work schedules, required travel, and working long hours,<sup>17,18</sup> would not be enjoyable and indeed would be stressful for an individual with a high level of neuroticism, which may explain the relationship of neuroticism and burnout.

Hendrix et al<sup>6</sup> studied the relationships between a variety of personal and situational factors and reported levels of stress and burnout. Personal and situational traits accounted for a large amount of variance in the stress perceived by ATs. In our investigation, a small portion of variance in burnout could be attributed to personality. Among the personal factors measured by Hendrix et al,<sup>6</sup> the personality trait hardiness had the greatest effect in decreasing stress. *Hardiness* describes a person's perception of control and influence on his or her own environment along with his or her willingness and openness to grow and change.<sup>6</sup> In ATs, hardiness increases as stress decreases; stress can lead to burnout, so it appears that hardiness could be a mitigating factor in burnout. Indeed, Alarcon et al<sup>33</sup> found hardiness to have a strong negative relationship with burnout. Though hardiness is not a factor measured by the BFI, it may relate to neuroticism. One who is neurotic sees challenges as stressful and is more cynical, whereas one who is hardy does not stress as easily and is more flexible. Those who perceive that they are under a great deal of stress tend to be susceptible to burnout; it is possible that the weak relationships found in our cohort are due to their level of hardiness. The hardiness trait in ATs should be explored in more depth.

Nurses also experienced burnout, which was significantly predicted by personality traits, specifically extraversion and neuroticism, as we found in ATs.<sup>32</sup> However, personality is an individual factor, and our regression analysis showed that the personality variables accounted for only a small amount of the variability in burnout scores. Though correlations were present between personality types and burnout, it is clear that the former is not a strong predictor of the latter, and therefore, many other factors likely affect burnout. When we added the demographic variables of years of experience, personal income, and number of hours worked in season, we predicted a higher portion of the variance in burnout scores, indicating that the combination of these factors is a better predictor of burnout than personality alone. Personal income and number of hours worked in season are 2 variables that measure organizational-level factors. Our findings highlight the need for a multilevel model that may better predict burnout.

Additionally, numerous other methods are used to assess personality; it is possible that the BFI factors are not the best fit for assessing the personalities of ATs. In the nursing literature, authors have used the BFI personality model in conjunction with positive and negative mood states and burnout scores,<sup>32</sup> as well as personality together with

hardiness, type A personality, positive and negative affectivity, and burnout.<sup>33</sup> The inclusion of other individual-level variables might provide a more complete picture of the factors leading ATs to become burnt out.

## LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study provides a snapshot of 1 point in time. It is important to note that the surveys were distributed during the spring, when some ATs may be in season. It would be beneficial to complete a longitudinal study measuring burnout and its influencing factors at a variety of times throughout the year. It appears that the competitive season, being in season, and time of year can affect experiences of work-life balance<sup>17-18,20</sup>; thus, the same could be said for burnout. Additionally, we surveyed only ATs currently in the profession. A large limitation to researching burnout is that those who have experienced the highest levels of burnout may have already left the profession. To accommodate this, investigators could seek to capture the perceptions of those ATs who have already left the profession. Furthermore, the survey we used to assess burnout is a self-report inventory that may be influenced by a multitude of independent factors. Finally, it is possible that traits such as hardiness and affectivity may better replicate the traits and personalities of individuals currently employed as ATs than those traits associated with the BFI.

Our study was the first look at this model within the field of athletic training. The findings reinforce the need to review multilevel perspectives in determining the causes of burnout in ATs. Future researchers should seek to evaluate coping strategies, as well as mood state and affectivity, in relation to burnout. Such studies of ATs would help to explain the variety of individual factors that could affect burnout. Further studies on personality in athletic training could focus on hardiness and type A personality, both of which have been examined in the nursing literature.

## CONCLUSIONS

Our results highlight the existence of moderate burnout in ATs employed in the collegiate setting. Although we did not find that personality, an individual-level factor, significantly predicted burnout among our participants, it did account for a small portion of the variance in burnout scores. It is important to have a better understanding of the individual-level factors that may lead to burnout but even more important to realize that this is a multifaceted problem. Our findings indicate that personality alone does not predict burnout. Therefore, the moderate burnout found in collegiate ATs likely occurs regardless of personality type. We believe this to reflect the need for a multilevel model within athletic training that will demonstrate the relationships among individual-, organizational-, and sociocultural-level factors in relation to burnout and other variables such as work-life balance and job satisfaction. Our data may suggest that organizational-level factors play a greater role in burnout than individual-level factors.

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