Relationship Between Grit and Well-being Among PAs Redeployed to Other Medical Specialties During the COVID-19 Pandemic

Allison E. Capic1, Nicole N. Pinuela1, Lily A. Lucca-Bederka1, Olivia N. Meyer1, Kevin Acosta1, Sara Naeem1, Gail Kunath-Tiburzi, MPA, PA-C2, and Anthony V. D’Antoni, MS, DC, PhD2

1 Student, Physician Assistant Program, Wagner College; 2 Faculty, Physician Assistant Program, Wagner College, Staten Island, NY, 10301, USA

INTRODUCTION

• During the pandemic, 7% of the working PA population were redeployed to EDs, ICUs, and other medical specialties (Banks, 2020). These workers experienced greater degrees of stress than the general population (Munn et al., 2021).
• A recent study found a positive correlation between resilience and one’s well-being (Munn et al., 2021). Another found that gritty individuals are less vulnerable to the effects of stressful events (van Zyl et al., 2021).
• There is a gap in literature in the evaluation of grit and well-being among PAs redeployed during the COVID-19 pandemic.

METHODS

The purpose of this exploratory study was to investigate if a correlation exists between grit and well-being in PAs redeployed during the COVID-19 pandemic between March to December 2020.

RESULTS

• Wagner College IRB approval was obtained (#F21-8).
• An a priori power analysis using G*Power Version 3.9.1.7 revealed that the minimum sample size needed to achieve significance was 136 participants at 0.80 power (Germany).
• An anonymous electronic survey contained 45 items adapted from Duckworth’s Grit Scale (reliability, 0.77 - 0.85) and Warwick Edinburgh Mental Well-being Scale (reliability, 0.91).
• The survey was distributed through AAPA Huddle, NYSSPA Listserv, and social media accounts.
• Sample size was N = 155.
• Data were analyzed with IBM SPSS Version 26 (Armonk, NY).

CONCLUSIONS

• We found that there is a statistically significant positive relationship (p < 0.05) between grit and well-being in PAs who were redeployed.
• The moderate positive correlation between grit and well-being was found to be influenced by an individual’s response to being a person of faith and length of practice as a PA.
• Further exploration of the flexibility of the PA profession and its implications for mental health as a result of redeployment is needed.

PROFESSIONAL RELEVANCE

These data highlight a positive correlation between grit and well-being in PAs redeployed during the COVID-19 pandemic. Our research recognizes the overall adaptability of the PA profession, emphasizes the importance of mental health, and ensures protection plans to redeployed PAs during major catastrophes.
Sample

Survey respondents $(N = 216)$

Number of respondents $(N = 214)$

Excluded $(n = 59)$
- Incomplete surveys
- Not certified PAs $(n = 9)$
- Not redeployed 3/2020 to 12/2020 $(n = 40)$
- Redeployed less than 2 weeks $(n = 2)$
- Not redeployed to COVID unit, ICU, EM, telemedicine, or occupational health $(n = 8)$

Excluded $(n = 2)$
- Did not agree to informed consent

Total surveys completed and analyzed $(N = 155)$

Survey Invitation

Retained
Total Scores

**Figure 1.** Grit Total Score (*N* = 155) and Well-being Total Score (*N* = 155)

- **Grit Total Score**
  - *M* = 4.04
  - α = .732*

- **Well-being Total Score**
  - *M* = 48.51
  - α = .905*
**Correlations**

**Figure 2. Grit Total Score vs. Well-being Total Score by Gender (N = 155)**

**. Correlation is significant at the 0.01 level (2-tailed)**
## Correlations

**Figure 3. Significant Spearman Rho Correlation Survey Questions vs. Total Grit and Total Well-being Score**

<table>
<thead>
<tr>
<th>Question</th>
<th>Grit Total Score</th>
<th>Well-being Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(Q2)</em> Do you consider yourself to be a religious person (a person of faith)?</td>
<td>-.117</td>
<td>-.267 *</td>
</tr>
<tr>
<td><em>(Q9)</em> How long have you practiced as a Physician Assistant?</td>
<td>.176 *</td>
<td>.223 *</td>
</tr>
</tbody>
</table>

*: Correlation is significant at the 0.05 level (2-tailed)
Correlations

Figure 4. Religious Background vs. Total Well-being Score (N = 155)

Do you consider yourself to be a religious person (a person of faith)?

- Yes: 50.31
- No: 46.61
- Unsure: 45.45

Error bars: 95% CI
Correlations

Figure 5. Well-being Mean Score vs. Grit Mean Score Score by Length of Practice (N = 155)

Length of Practice vs. Grit Mean Score

Length of Practice vs. Well-being Mean Score

Error bars: 95% CI