

The Relationship Between Grit Score and Physical Activity in Primigravida and Multigravida Pregnant Women

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Category: Masters

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ABSTRACT

Physical activity (PA) levels decline when women become pregnant; this may differ by gravidity (number of pregnancies). Grit is a construct consisting of two facets including perseverance of effort (perseverance) and consistency of interest (consistency), and it may be predictive of PA volume and/or intensity in individuals. **PURPOSE:** To determine the relationship between grit and PA levels of various activity types in pregnant women, including assessing primigravida and multigravida women. **METHODS:** Pregnant women (n=126; 27.6 years old; 17.7 weeks gestation) in Utah, USA were assessed for grit (overall score and the consistency and perseverance facets) with the Short Grit Scale (Grit-S) and for PA levels across various activity types with the Pregnancy Physical Activity Questionnaire (PPAQ). Pearson's correlation coefficients (r) were used to assess the strength of the relationships between grit and prenatal PA. Unpaired t-tests were used to compare primigravida and multigravida data. **RESULTS:** Overall grit and the consistency facet were not significantly ($p > 0.05$) related to any of the PA types measured. No significant differences were found in grit (overall and consistency and perseverance facets) between primigravida and multigravida women. In contrast, the perseverance facet of grit had a significant ($p < 0.05$) weak inverse relationship between moderate-intensity ($r = -0.22$), household/caregiving ($r = -0.20$), moderate + vigorous ($r = -0.22$), and total PA ($r = -0.20$) with no significant relationships with the other activity types (r range: 0.05 - -0.15). Further, compared to multigravida women, primigravida mothers had significantly higher weekly sedentary and occupational PA, yet they had lower weekly light-intensity and household/caregiving PA, with no differences in the other activity types including moderate + vigorous and total activity. **CONCLUSION:** These findings are the first evidence for the relationship between the perseverance of effort facet of grit and weekly PA levels in pregnant women. Further, we add support to existing literature that PA levels may vary by gravidity and should be considered when developing PA interventions in pregnant women. Findings from this study can be used to tailor programs by gravidity to help women meet the prenatal PA guidelines.