The scientific study of the development of entrepreneurship is in its infancy. As noted by Damon and Lerner (2008) most reviews of the literature of entrepreneurship do not even mention young people. We explore whether entrepreneurial attributes are linked to characteristics of positive youth development (i.e., the Five Cs of Competence, Confidence, Character, Caring, and Connection). Cluster analysis involved characteristics associated with entrepreneurship (e.g. entrepreneurial intention self regulation [EISR], entrepreneurial intent, and Machiavellianism), producing five clusters. The High EISR cluster scored higher than others on each of the Five Cs. Limitations and recommendations for future research are discussed.

**Participants**

We examined data from a sample of 4,349 participants recruited from universities in the United States, then conducted the study of this topic among late adolescents and young adults. We present here initial results from Wave 1 of the Young Entrepreneurs Study (YES), highlighting factors that may characterize the entrepreneurial proclivities of youth. We explore whether entrepreneurial attributes covary with features of positive development.

**Abstract**

The scientific study of the development of entrepreneurship is in its infancy. As noted by Damon and Lerner (2008) most reviews of the literature of entrepreneurship do not even mention young people. We explore whether entrepreneurial attributes are linked to characteristics of positive youth development (i.e., the Five Cs of Competence, Confidence, Character, Caring, and Connection). Cluster analysis involved characteristics associated with entrepreneurship (e.g. entrepreneurial intention self regulation [EISR], entrepreneurial intent, and Machiavellianism), producing five clusters. The High EISR cluster scored higher than others on each of the Five Cs. Limitations and recommendations for future research are discussed.

**Methods**

We used cluster analysis to explore characteristics and skills potentially related to entrepreneurship. Participants were clustered according to their self-reported entrepreneurial intentional self-regulation (EISR; two subscales of Selection, three subscales of Optimization, and Compensation), future orientation, life goal of starting a business, entrepreneurial view of money, social-oriented career values, innovation orientation (i.e., competence, control, and status), assertiveness, and nonconformity. Five distinct clusters emerged: Average (the reference group for the cluster analysis), Machiavellians (distinct from the Average cluster in that they had higher Machiavellian proclivities), Low EISR (individuals whose only difference from the Average cluster was lower entrepreneurial intent), High EISR (significantly higher than all other clusters on EISR and entrepreneurial intent variables), and Nice Folks (individuals whose only difference from the Average cluster was lower Machiavellian proclivities). Table 3 presents the clusters sizes and means for each group on each construct used for the clustering. Using the Five Cs model of positive youth development (e.g., Lerner, et al., 2000, 2006), Table 4 presents the cluster means for each construct of the Five Cs of Positive Youth Development (PYD). The Five Cs model of PYD includes the constructs of Competence, Confidence, Character, Caring, and Connection.

As shown in Table 4, pair-wise comparisons using a Tukey correction were used to assess mean differences among clusters for each of the Five Cs (i.e., Competence, Confidence, Character, Caring, and Connection). For each of the Five Cs, the High EISR cluster had higher scores than the other clusters on three of the Five Cs. The Low EISR cluster consistently had the lowest mean scores on Competence, Character, Caring, and Connection. There were also some cases of clusters with no statistically significant differences. For Competence, there was no significant difference between the mean scores of the Machiavellian and the Average clusters. For Confidence, there was no significant difference between the mean scores of the Low EISR clusters or between the Nice Folks and the High EISR clusters. For Connection, there was no significant difference between the mean scores of each cluster. For Caring, there was no significant difference between the Machiavellian and Low EISR clusters or between the Nice Folks and the High EISR clusters. For Social, there were significant differences between the mean scores of each cluster. Further longitudinal studies are needed to examine these possibilities.

**Results**

Consistent with prior research (e.g., Geldhof, et al., 2010; Gestsdóttir et al., 2011), intentional self regulation (ISR; indicated by EISR scores in this study) was shown to be a key characteristic of thriving young people, as it was a defining feature of the High EISR cluster, which had the highest mean scores on the Five Cs of PYD. Since individuals high on the Five Cs of PYD are more likely to be contributing and thriving members of their society (Lerner, et al., 2000, 2005), the findings of the present study provide further support for the importance of ISR as an individual asset that helps young people access resources in their environments.

Since the EISR emphasizes aspects of self-regulation that should be salient in the domain of entrepreneurship either in entrepreneurial activities or among entrepreneurial orientation young adults, the High EISR cluster may contain individuals who are likely to display proclivities towards being entrepreneurial. Furthermore, if individuals in this cluster choose to become entrepreneurs, they may be more successful because of their self-regulatory behavior. Further longitudinal analyses will be needed to examine these possibilities.

Despite these significant results, several limitations of the research exist. First, these findings are exploratory and should be interpreted with caution. Second, this is only the first wave of a larger longitudinal study, results do not provide insight into the change developmental processes associated with the development of entrepreneurship. Therefore, our results do not permit speculation regarding whether those who are in the High EISR cluster are more likely to become entrepreneurs in the future. Accordingly, future studies should focus on the development of self-regulation and its role in both entrepreneurship and positive development among young people.