Psychological Heterogeneity Among Honors College Students

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Abstract

Greater knowledge of the psychology of honors college students will help to inform program administrators, counselors, residence life assistants, and faculty about how they may provide support to those with the greatest need. Via an online survey, personality, perfectionism, and suicidal ideation data were collected from honors college students (*N* = 410, 73% female). Using latent profile analysis, students were classified by their responses to the Big Five Inventory personality measure into five profiles. Risk factors of high perfectionism and suicidal ideation scores were found in two of the profiles, suggesting students with these personality characteristics may need enhanced psychological support. The largest profile (35% of students) had extraversion scores above the norm, but all other profiles had introverted scores below the norm. Neuroticism scores were also higher than the norm in the introverted profiles, which represented a majority of the honors college students.

Honors students constitute one of the most unique segments of the university student population. Honors students are considered models of excellence in an academic culture (Wintrol & Jerinic, 2013). Despite the common emphasis on their academic achievement,

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the empirical literature on honors students' characteristics and socioemotional needs is very limited. Exceptional academic achievement does not guarantee that these students are exempt from social and emotional challenges. As Robertson (1966) noted, bright students experience "the same self-questioning, the same anxieties, the same social triumphs and failures, the same problems of choice, the same difficulty meeting deadlines as do all other young men and women" (p. 52).

Honors colleges were created with the intention of attracting and providing an excellent education to the most talented high school students at non–Ivy League institutions (Herron, 2013; Long, 2002). In recent years, concerns have been raised about low retention rates of students in these advanced programs (Campbell & Fuqua, 2008–2009; Cosgrove, 2004; Goodstein & Szarek, 2013). Although honors colleges have attempted to improve various features of their programs to increase retention rates—from altering admissions criteria (McKay, 2009) to enhancing program offerings (Goodstein & Szarek, 2013; Smith & Zagurski, 2013)—there is little empirical research about a probable contributor to students' success, namely, the characteristics and strengths that contribute to their healthy psychological functioning (Clark, 2000; Rinn & Plucker, 2004). In an effort to close our knowledge gap in this area, the present study aimed to identify patterns of characteristics by which honors college students may be recognized, along with associated areas of concern that can be addressed to help them achieve their potential.

The Psychology of Honors College Students

What little is known about the psychological makeup of honors college students is based on a mere handful of studies. Honors college students have been found to have higher personal standards—a component of perfectionism associated with positive outcomes—than their general education peers (Wimberley & Stasio, 2013). A subset of honors college students in Zirkel's (1992) study had great anxiety about making the transition to independence, both academically during college and socially after college, but this was only about a third of the sample. Approximately half of the honors college students in Speirs Neumeister and Finch's (2006) study were securely attached to their parents and a majority described their parents as authoritative. An insecure attachment was associated with higher levels of self-oriented and socially prescribed perfectionism (SPP).

Miller, Lambert, and Speirs Neumeister (2012) found relationships among creativity, perfectionism, and parenting style in a sample of honors college students.[1] Permissive parenting was associated with greater creativity, and an authoritarian parenting style was associated with higher SPP. Locus of control and academic self-concept did not differ among honors college students and high-achieving, but nonhonors college peers (Rinn, Boazman, Jackson, & Barrio, 2014). In another study, however, Rinn (2007) found that academic self-concept was higher among honors college students than among their similarly high-achieving, but nonhonors college peers. Honors college students who negatively assess their performance in relation to their expectations (maladaptive discrepancy) had a stronger tendency toward depression and hopelessness (Rice, Leever, Christopher,

& Porter, 2006). Having high personal standards appeared to be somewhat protective, with lower tendencies toward depression and hopelessness among students with high personal standards. A relationship among high personal standards (self-oriented perfectionism [SOP]) and depression and hopelessness was likely to manifest only at times of high stress. Reviewing these few relevant studies makes clear the narrow foundation available for building recommendations for universities that wish to support the psychosocial needs of their honors college students.

The paucity of research on the psychology of honors college students necessitates augmenting it with research on gifted students. The description of honors students fits into the *gifted* category. However, there are several issues associated with the extension of literature beyond the domain of honors students. Neither is there a consensus on the definition of giftedness, nor are the identification criteria of different gifted programs consistent. Similarly, honors students are not a homogeneous group (Cummings, 1986). Some honors programs are highly selective, whereas others have open admissions. Thus, programs vary on what constitutes an honors student. Criteria used to identify gifted students are typically more selective and subjective than criteria used in the honors program admissions (Clark, 2000). It is likely that a majority of the high-achieving students in honors colleges would have met the criteria for identification when younger. For this reason, studies of gifted students will be included in the following review of research, where appropriate.

Supporting Honors College Students

Honors college students may experience unique challenges in the social and academic domains. Finding a social niche may be easy in honors college housing, where all students are of similar academic ability and experience similar high expectations for their work. It should be noted, however, that the role of separate honors college housing and classes in the psychological and social adjustment of these students has not been adequately studied (Rinn & Plucker, 2004). Like all people, honors college students will differ in personality and some will fit in, whereas others will not. Despite their academic success, even honors college students may have beliefs that lead to successful or unsuccessful social or psychological behaviors. How they cope with the expectations, the social and academic requirements, and the day-to-day challenges of college life may be constructive or destructive. In the worst-case scenario, some students may devolve to such a negative state that suicide appears the only option (J. R. Cross & Cross, 2015). In these cases, especially, and others less severe, knowledge about the psychology of students may be helpful in developing strategies for success. In the present study, we examined the relatively stable personality characteristics by which honors college students might be recognized, along with perfectionism and suicidal ideation.

The Five-Factor Model of Personality

Personality is a complex phenomenon that refers to individuals' characteristic patterns of behaviors. The five-factor model of personality (McCrae & Costa, 1999), also

known as the *Big Five*, is the prevailing conceptualization of basic personality dimensions. The Big Five model has gained significant empirical support. However, it is not free of criticism. Despite its universality, some controversies have been raised concerning the main assumptions regarding the structure of personality, including the number of personality traits (Strus, Cieciuch, & Rowinski, 2014). The five basic dimensions of personality, which have been found to be relatively stable among individuals, have traditionally been labeled *agreeableness, conscientiousness, neuroticism* (vs. emotional stability), *extraversion*, and *openness to experience*. Each personality dimension is described as existing along a continuum that uses contrasting traits for its lower and upper anchor. For example, agreeableness contrasts traits such as trust and warmth with traits such as hostility, selfishness, and distrust. Individuals high in agreeableness tend to be sympathetic and cooperative, whereas individuals low in agreeableness are more likely to be callous and cynical (Costa & McCrae, 1992). Conscientiousness contrasts such traits as organization, thoroughness, and reliability with traits such as carelessness, negligence, and unreliability. Neuroticism is composed of such traits as nervousness, moodiness, and temperamentality, contrasted with a relative absence of these. Extraversion contrasts such traits as talkativeness, assertiveness, and activity level with traits such as silence, passivity, and reserve. Individuals high in extraversion have a tendency toward activity and experiencing joy and pleasure, in contrast with more reticent introverts (Costa & McCrae, 1992). Openness to experience contrasts such traits as curiosity, originality, and creativity with shallowness and lack of perceptiveness (Goldberg, 1993).

These personality dimensions are not isolated in real life; they coexist within individuals, producing different patterns of personality traits (Zhang, Bray, Zhang, & Lanza, 2015). Research on the Big Five personality dimensions has largely been variable centered, investigating differences on dimensions across subjects. This approach focuses on personality traits in isolation and, therefore, disregards the configuration of traits within an individual (Asendorpf, Borkenau, Ostendorf, & van Aken, 2001). Referring to the individual as the appropriate level of analysis, in recent decades, researchers have proposed a person-centered/typological approach that classifies people based on their individual personality structure (Steca, Alessandri, Vecchio, & Caprara, 2007). In typological research, across multiple samples and various personality indicators, three personality types have been most commonly found: resilients (i.e., self-confident, self-directed, and emotionally stable), overcontrollers (i.e., dependable, sensitive, introverted, and emotionally brittle), and undercontrollers (i.e., stubborn, physically active, impulsive, and disobedient; Rammstedt, Riemann, Angleitner, & Borkenau, 2004). Typically, resilients were found to have low scores on neuroticism, and high on the other traits. Overcontrollers were found to score high on neuroticism and low on extraversion, whereas undercontrollers scored low on agreeableness and conscientiousness (Rammstedt et al., 2004).

A number of studies analyzed personality types by using various cluster-analytic approaches. For example, Specht, Luhmann, and Geiser (2014) explored personality types in two samples by using latent profile analysis (LPA). Although the analysis of the first sample resulted in a three-profile solution similar to the personality types

found in previous research, the four-type solution yielded the best fitting model for the second sample. The first two personality types were similar to resilients and undercontrollers. The third type was an average type with values on all the personality traits close to the overall mean levels. The fourth type had not only some similarities with the typical overcontroller type but also notable differences. In some other studies, researchers recovered a "nondesirable" profile instead of the undercontrolled type when using the Big Five measures (e.g., Barbaranelli, 2002; Grumm & von Collani, 2009). These mixed findings suggest that the consistency of the three personality types across different studies is not perfect. In addition, there is no research evidence to demonstrate whether the tripartite structure of personality types holds for high-ability populations.

Heterogeneity of the gifted population and inconsistencies in identification of gifted students are two of the serious methodological pitfalls in research on these individuals. Therefore, it is sometimes difficult to determine whether highly able students have unique personality profiles. A large body of research has been conducted to answer this question for specific psychological constructs that make up personality (Shani-Zinovitch & Zeidner, 2009). The findings of these studies contradict the general assumptions that tend to stereotype gifted students as having specific personality profiles such as maladaptive psychosocial characteristics, social difficulties, and anxiety (Neihart, 2002; Plucker & Stocking, 2001). Gifted students have been compared with average students on different measures of personality. Research on Big Five personality traits in the gifted population suggests notable differences between the gifted and average students. Gifted students had higher scores on openness, but scored lower on neuroticism than average students (McCrae et al., 2002; Zeidner & Shani-Zinovich, 2011). In a population of creatively gifted and nongifted adults, Vuyk, Krieshok, and Kerr (2016) reported higher scores on the openness dimension in the gifted sample. Scager et al. (2012) found greater openness to experience among Finnish honors college students than nonhonors students. In a synthesis of 19 studies, Sak (2004) found higher percentages of gifted students classified as introverts (49%) than nongifted students (35%).

Research has identified associations between the Big Five personality traits and general intelligence. For example, neuroticism and openness to experience were found to have a consistent pattern of associations with intelligence across the studies. Hembree (1988) found that some key facets of neuroticism such as anxiety, anger, hostility, and depression are related to intelligence. Moutafi, Furnham, and Tsaousis (2005) found that high levels of neuroticism led to greater test anxiety and, therefore, lower intelligence test scores. Previous studies have reported a positive moderate correlation between intelligence and openness to experience (DeYoung, 2011; Goff & Ackerman, 1992). Three other factors (conscientiousness, agreeableness, and extraversion), however, had negligible associations with intelligence (Ackerman & Heggestad, 1997; DeYoung, 2011). Wolf and Ackerman (2005) found a negative correlation between extraversion and intelligence. One explanation for this is that, as a desire to be close to others is greater, time spent in intellectual tasks decreases, with a consequent decrease in performance on tests of intelligence.

Perfectionism

Perfectionism reflects one's approach to tasks and expectations for how they should be accomplished. It is a multidimensional construct that has been conceptualized and measured in several different ways. There is no precise definition of perfectionism; also, there is no clear consensus on its dimensions (Rice, Ashby, & Slaney, 2007; Speirs Neumeister, 2015). The theoretical origins of perfectionism can be traced back to clinical theory, in which perfectionism was viewed as a personality defect (Pirot, 1986). Clinical evidence suggests an association between perfectionistic attitudes and depressive psychopathology (Beck & Burns, 1979; Burns, 1980). One of the most prevalent models of perfectionism is Hewitt and Flett's (1991a), which differentiates three dimensions of perfectionism: SOP, other-oriented perfectionism (OOP), and SPP. These dimensions were originally conceptualized as maladaptive (Klibert, Langhinrichsen-Rohling, & Saito, 2005).

In the literature, the positive aspects of perfectionism are labeled as *adaptive perfectionism*, whereas the negative aspects are labeled *maladaptive perfectionism* (Enns & Cox, 2002). More recently, the dimensions of *positive striving* and *evaluative concerns* have been recommended for greater research attention (Speirs Neumeister, 2015). These positive and negative dimensions can be seen in numerous studies. For example, Flett, Hewitt, Blankstein, and O'Brien (1991) found that SOP was positively associated with resourcefulness. Mills and Blankstein (2000) also reported a positive association between SOP and intrinsic motivation. Klibert et al. (2005) found that SPP had stronger associations with maladaptive perfectionism than did SOP. The results suggested that high SOP in the absence of SPP is adaptive. A heightened concern about others' evaluation of one's performance, as with SPP, however, has been associated with a host of negative psychological outcomes (Stoeber & Otto, 2006). Speirs Neumeister (2015) summed up the current state of research on perfectionism:

> When researchers deconstruct perfectionism into these two factors [Positive Strivings and Evaluative Concerns], findings regarding the healthy/unhealthy debate are clear: Positive Strivings correlates with adaptive outcome measures such as positive affect, conscientiousness, and an internal locus of control; high levels of Evaluative Concerns correlates with maladaptive outcome measures such as negative affect, neuroticism, distress, eating disorders, and anxiety (Boone, Braet, Vandereycken, & Claes, 2013; Stoeber & Otto, 2006). (pp. 31–32)

Understanding and addressing perfectionism in gifted students has been an important counseling need of the gifted (Kerr, 1991; Pyryt, 2007; Silverman, 1993). Excessively high self-standards and expectations from others may result in serious social and psychological problems in the lives of gifted students. For example, some perfectionistic gifted students are vulnerable to underachievement, unwilling to submit work unless they believe it is perfect (Whitmore, 1980). They may become emotionally stressed, and feel worthless and depressed, finally failing to live up to unrealistically high standards and expectations (Pyryt, 2007). Anecdotal evidence that perfectionism leads to suicidal risks in some gifted students (T. L. Cross & Cross, 2017b) reveals the

level of risk of not successfully dealing with perfectionism in gifted students. Hewitt, Flett, and Turnbull-Donovan (1992) found that SPP correlated with suicide threat and intent. This perfectionism dimension predicted variance in suicide scores of psychiatric patients that was not accounted for by depression or hopelessness.

Roberts and Lovett (1994) found that gifted adolescents who experienced experimentally induced academic failure demonstrated higher levels of SOP than nongifted peers in the same condition. Adderholt-Elliott (1991) argued that gifted students are highly vulnerable to perfectionistic tendencies as they often experience pressure from parents and teachers and are influenced by high personal standards. Parental authoritarianism was associated with high SPP among honors college students (Miller et al., 2012; Speirs Neumeister, 2004). Evidence indicates gifted students have similar perfectionistic strivings as nongifted peers (Chan, 2009; Parker, 2000; Parker & Mills, 1996), although Parker and Adkins (1995) found higher levels of perfectionism among honors college students than their general population peers. Some studies found that gifted students have higher levels of adaptive and lower levels of maladaptive perfectionism compared with nongifted students (LoCicero & Ashby, 2000; Roberts & Lovett, 1994).

The Big Five Personality Traits and Perfectionism

Research has consistently revealed an association between the Big Five personality traits and perfectionism. SOP has been moderately to strongly associated with conscientiousness (Hill, McIntire, & Bacharach, 1997; Parker & Stumpf, 1995; Stoeber, 2014). SPP was found to have at least moderate association with neuroticism (Hill et al., 1997; Parker & Stumpf, 1995). OOP was inversely associated with agreeableness (Hill et al., 1997; Stoeber, 2014). Enns and Cox (2002) found that neuroticism was strongly associated with SPP. Enns and Cox also reported a moderate correlation between SOP and conscientiousness.

In a recent study, Stoeber (2014) investigated the relationship between the three forms of perfectionism and personality traits. SOP showed a weak positive relationship with extraversion ($r = .18$) and a strong positive relationship with conscientiousness ($r = .79$). SPP showed modest negative relationships with both extraversion ($r = -.38$) and conscientiousness ($r = -.30$). OOP showed a modest positive relationship with extraversion ($r = .27$) and a modest negative relationship with agreeableness ($r = -.30$). In a large sample of college students ($N = 475$), Dunkley, Zuroff, and Blankstein (2006) found a significant association between neuroticism and self-critical perfectionism (SCP; a factor composite of self-criticism, solitude, and SPP) and between personal standards perfectionism (PSP; a factor composite of efficacy, independence, and SOP) and conscientiousness. SCP reflected negative perceptions of the self and a defensive interpersonal orientation, and PSP reflected active striving for high standards and achievement.

Parker (1997) identified three categories among middle school gifted students: a nonperfectionistic type, a healthy perfectionistic type, and a dysfunctional (unhealthy) perfectionistic type. The students in the nonperfectionistic group scored the lowest on conscientiousness; the students in the healthy perfectionistic group scored the highest

on extraversion, agreeableness, and conscientiousness, but the lowest on neuroticism. The students in the dysfunctional group scored the highest on neuroticism and openness to experiences and the lowest on agreeableness.

Suicidal Ideation

Thinking about suicide. Although there are biological risk factors associated with suicide, such as a family history of depression (Stillion & McDowell, 1996), research suggests that most suicide attempts and completions begin with thoughts of suicide—suicidal ideation. Suicidal ideation is prevalent among college students. In 2016, the American College Health Association surveyed 95,761 college students from 137 college campuses; 9.8% of students reported suicidal ideation and 1.5% of them had made a suicide attempt. Some studies, however, have reported much higher suicidal ideation rates among college students. In their study of more than 26,000 college students (Drum, Brownson, Denmark, & Smith, 2009), fewer than half (45%) responded that they had "never had suicidal thoughts." The majority of deaths by suicides are among males (National Center for Injury Prevention and Control, 2015), even though females attempt suicide more frequently than males.

Suicide among gifted adolescents. The number and prevalence rate of suicide among intellectually gifted adolescents and young adults are unknown, in part, because of the lack of a consensus definition of a gifted population (T. L. Cross, 1996). Nevertheless, the problem is real: Like their nongifted peers, gifted adolescents are committing suicide and the incidence of suicide among adolescents has increased (T. L. Cross & Cross, 2017a). However, it is still unknown whether the incidence of suicide among gifted adolescents is different from that of the general population of adolescents (T. L. Cross & Cross, 2017a).

In a study exploring the prevalence and nature of depression and suicidal ideation in samples of academically talented students and their general cohort of peers, Baker (1995) found the incidence of depression and suicidal ideation was similar for both gifted and average adolescents. Similarly, in another study examining the suicidal ideation and personality characteristics among gifted adolescents, the gifted adolescents did not exhibit heightened rates of suicidal ideation as compared with their nongifted peers (T. L. Cross, Cassady, & Miller, 2006). Some characteristics of gifted adolescents, such as unusual sensitivity and perfectionism (Delisle, 1986) or isolationism related to extreme introversion (Kaiser & Berndt, 1985), have been proposed to confer an increased risk of suicide, but there is no concrete evidence of these associations (T. L. Cross & Cross, 2017a, 2017b).

Gifted students have distinct experiences due to their exceptional abilities. Not only is there great potential for internal and external pressure to perform beyond the level of their peers (T. L. Cross & Cross, 2017a) but also their cognitive abilities may influence the way they think about suicide. Cassady and Cross (2006) found that the factorial structure of suicidal ideation was more complex in a sample of gifted adolescents ($N = 334$) than in the norm group for the adolescent Suicide Ideation Questionnaire

(SIQ). Cassady and Cross suggested that knowledge of this unique ideation can provide tailored interventions for adolescents with specific risk orientations. This study has implications for those interested in supporting honors college students, as well.

Suicide and Honors College Students

Parker and Adkins (1995) found that honors college students were more perfectionistic than peers, a characteristic that has been found to be predictive of suicidal ideation (Hewitt et al., 1992; O'Connor, 2007; O'Connor & Forgan, 2007). Some studies in top universities can be viewed as closely related to honors colleges, due to rigorous admissions requirements. In an early study (Seiden, 1966) exploring the characteristics of students who completed suicide during the years 1952 to 1961 at the University of California, Berkeley, two thirds of the suicidal students had above average grade point average (GPA) and low self-satisfaction. Seiden (1966) attributed such dissatisfaction to the demanding standard they set for themselves. In another study (Hawton, Crowle, Simkin, & Bancroft, 1978), Oxford University students were found to have a higher incidence of completed suicide than their age peers in general. The present study extends Cross and colleagues' (Cassady & Cross, 2006; T. L. Cross et al., 2006) previous work on the suicidal ideation of gifted adolescents into the adult world. This study will begin to fill the gap in researchers' knowledge about the suicidal ideation of honors college students.

The Present Study

Personality characteristics are considered stable traits—ones by which we may be able to recognize honors college students. Research indicates that perfectionistic tendencies may have powerful implications for these students in their academic journey and it is important to understand the relationship with suicidal ideation, so honors college students who will benefit from targeted support may be identified.

The research questions guiding this study were as follows:

Research Question 1: What patterns of personality traits can be identified in a sample of honors college students?
Research Question 2: Is there an association among patterns of personality traits and the academically relevant belief systems of perfectionism?
Research Question 3: Is there an association among patterns of personality traits and suicidal ideation?

Method

Participants

The original sample consisted of 434 honors college students from a large Midwestern university. Overall, this represents 26% of all honors college students at the university

during the recruitment period. Examination of the item-level data on the scales of interest revealed that 24 (5.5%) cases were missing responses to more than 30% of the items, and additional 18 (4.1%) cases were missing responses to fewer than three items. The decision was made to drop the 24 cases and replace the missing item responses for the 18 cases using linear interpolation of the other items on the scale. This resulted in a final sample of 410 students comprising 109 males (26.6%) and 301 females (73.4%). The average age of male students was 19.53 years ($SD = 1.56$ years) and the mean age of female students was 19.65 years ($SD = 1.36$ years). The majority of the sample was White/Caucasian (90.2%). These demographics are similar to those of the university's participant pool population.

Admission requirements for the honors college included an honors or comparable high school diploma with a minimum 3.6 GPA based only on grades in college preparatory and academic course work completed in high school. Additional criteria included standardized test scores, rigorous high school courses taken, and letters of reference from teachers. Students represented most majors available at the college.

Procedures

Participants were recruited through an email with an online survey invitation and a link to the survey instrument. A chance to win an mp3 player was offered as incentive to participate. The current sample consists of students from four recruitment periods that took place over the Spring of 2008, Fall of 2008, Spring of 2009, and Spring of 2011 semesters.

The measures used in this study were included in a larger battery of 12 instruments. The online survey could be completed during a single session with no time limit. The instruments covered a variety of topics including creativity, temperament, attachment style, parenting, perfectionism, suicide ideation, social coping, ethnic identity, social dominance orientation, achievement motivation, overexcitability, and personality traits, as well as demographics items. Students received one of two versions of the survey, with the order of instruments randomized between versions. No significant differences in responses to any of the instruments were found between versions.

Instruments

Big Five Inventory (BFI). The revised version of the BFI (John, Donahue, & Kentle, 1991) is a 44-item survey designed to assess the constellation of traits defined by the Big Five model of personality. Scoring is based on a 5-point Likert-type scale (1 = *disagree strongly*, 2 = *disagree a little*, 3 = *neither agree nor disagree*, 4 = *agree a little*, to 5 = *agree strongly*). The five subscales, representing five personality traits, are Extraversion (e.g., "I see myself as someone who is talkative"), Agreeableness (e.g., "I see myself as someone who is helpful and unselfish with others"), Conscientiousness (e.g., "I see myself as someone who perseveres until the task is finished"), Neuroticism (e.g., "I see myself as someone who is depressed, blue"), and Openness to Experience (e.g., "I see myself as someone who is original,

comes up with new ideas," "I see myself as someone who values artistic, esthetic experiences"). Cronbach's alpha coefficients obtained with the current sample were as follows: Extraversion (α = .87), Agreeableness (α = .80), Conscientiousness (α = .83), Neuroticism (α = .86), Openness (α = .83). The norm data from Soto, John, Gosling, and Potter (2011) were used as the basis for comparison.

Multidimensional Perfectionism Scale (MPS). The MPS (Hewitt & Flett, 1991a) is a 45-item instrument that assesses three perfectionism dimensions with 15 items each. These dimensions are SOP, which involves self-directed perfectionistic behaviors; OOP, which involves beliefs and expectations about capabilities of others; and SPP, which involves the perceived need to attain standards and expectations prescribed by significant others. Items are answered along a 7-point Likert-type scale (1 = *strongly disagree* to 7 = *strongly agree*). Interpretations of MPS data must be gender specific, as normative data for the MPS appear in Hewitt and Flett's (2004) Community Profile disaggregated by gender and no aggregate information is available. Hewitt and Flett (1991b) reported that the MPS is reliable (r = .75–.88) and internally consistent (α = .86–.89; item-total correlations for each item = .43–.73) with a college student population. Cronbach's alpha coefficients for the subscales in the current sample were as follows: SOP (α = .91), OOP (α = .82), and SPP (α = .86).

Adult Suicidal Ideation Questionnaire (ASIQ). The ASIQ (Reynolds, 1991) includes 25 items designed to measure specific suicidal behaviors or thoughts. Participants rate the frequency of the behavior or thought on a 7-point scale from 0 (*I never had this thought*) to 6 (*almost every day*). A maximum score of 150 is possible. In the college student norm sample (N = 1,098), those who had previously attempted suicide had significantly higher ASIQ scores than nonattempters. Six items are considered critical in differentiating between previous attempters and nonattempters (i.e., "I thought about killing myself," "I thought about how I would kill myself"; Reynolds, 1991). High scores on any two of these items are considered a red flag even when accompanied by a relatively low score overall. In addition to the critical items, a cutoff score of 31 "provided a useful cutoff for delineating a clinically relevant level of suicidal ideation" (Reynolds, 1991, p. 9). Reynolds (1991) reported a high reliability for the ASIQ with his college student sample (r_α = .961). The reliability for this sample was also high (r_α = .973).

Data Analysis

LPA, using Mplus 7 (Muthén & Muthén, 2012), was employed to explore the clustering of honors students based on their personality profiles. LPA has several advantages over traditional clustering approaches (Mammadov, Ward, Cross, & Cross, 2016). One of the most important advantages of LPA is that it has formal statistical fit criteria that enable more objective decision making over profile selection (Muthén & Muthén, 2000). The statistics used to select the best fitting model are the Lo–Mendell–Rubin (LMR) likelihood ratio test (Lo, Mendell, & Rubin, 2001), the Bootstrapped Likelihood

Table 1. Correlations Among Subscales.

Subscale	1	2	3	4	5	6	7	8
1. EXTRA	—							
2. AGREE	.230**	—						
3. CONSC	0.091	.115*	—					
4. NEURO	−.169**	−.301**	−.122*	—				
5. OPENN	.202**	0.024	0.027	−0.09	—			
6. SOP	−0.005	−0.088	.337**	.249**	.097*	—		
7. OOP	0.026	−.170**	.241**	−0.003	.113*	.435**	—	
8. SPP	−.106*	−.216**	−0.088	.294**	0.013	.397**	.348**	—
9. SI	−.175**	−.235**	−.115*	.362**	0.015	.122*	0.054	.338**

Note. EXTRA = Extraversion; AGREE = Agreeable; CONSC = Conscientious; NEURO = Neurotic;
OPENN = Openness to Experience; SOP = Self-Oriented Perfectionism; OOP = Other-Oriented
Perfectionism; SPP = Socially Prescribed Perfectionism; SI = Suicidal Ideation.
*Correlation is significant at the .05 level (two tailed). **Correlation is significant at the .01 level (two tailed).

Table 2. Latent Profile Model Information Criteria, Likelihood Ratio Test, and Entropy
($N = 410$).

Fit statistic	1 Class	2 Class	3 Class	4 Class	5 Class
Log-likelihood	−2,312.418	−2,272.214	−2,254.965	−2,244.105	−2,231.867
AIC	N/A	4,576.428	4,553.929	4,544.211	4,531.733
BIC	N/A	4,640.686	4,642.285	4,656.663	4,668.283
ABIC	N/A	4,589.915	4,572.474	4,567.814	4,560.394
LMR	N/A	78.240	33.569	21.133	23.818
LMR *p*	N/A	.000	.1831	.3,941	.2734
BLRT *p*	N/A	.000	.000	.020	.000
Entropy	N/A	0.623	0.594	0.664	0.622

Note. AIC = Akaike information criterion; BIC = Bayesian information criterion; ABIC = adjusted BIC;
LMR = Lo–Mendell–Rubin; BLRT = Bootstrapped Likelihood Ratio Test.

Ratio Test (BLRT; McLachlan & Peel, 2000), Schwarz's (1978) Bayesian information
criterion (BIC), and Sclove's (1987) adjusted BIC (ABIC). The entropy measure was
used to find the level of classification precision. In this study, we asked Mplus to use
5,000 random starts, with 100 iterations, and 500 final-stage optimizations to protect
against local maxima (Marsh, Lüdtke, Trautwein, & Morin, 2009).

Results

Correlations among the nine subscales included in the analysis are presented in Table 1.
LPA was used to obtain the Big Five personality profiles of honors students. As can be
seen in Table 2, information criteria, likelihood ratio test, and entropy values varied

significantly in a nonlinear fashion. These results were not conclusive to determine the number of profiles. The LPA is an interpretive process. During the assessment of model information criteria, the researchers also examined which alternative optimal solutions allow for the most meaningful interpretations. Two information criteria, Akaike information criterion (AIC) and ABIC, suggested that a five-profile solution is the optimal model. These values decreased when moving from one through five profiles. BIC value, however, increased systematically after each solution was obtained, suggesting a preference for the two-profile solution. Simulation studies among the information-based measures of fit have indicated the ABIC the most accurate (Yang, 2006). Although the LMR p values indicated that there is no statistical significance of accepting a three-profile solution over the two-profile solution, p values approximated by the BLRT suggested that each time, the (k) profile model provided significantly better fit to the observed data in the ($k - 1$) profile model. Given that the previous simulation studies suggest that the BLRT may perform better than the LMR (Nylund, Asparouhov, & Muthén, 2007; Tein, Coxe, & Cham, 2013), we decided to keep testing subsequent profile solutions to see whether significant improvement was achieved. This was also suggested by findings of five profiles in similar typological research (e.g., Rammstedt et al., 2004; Zhang et al., 2015). Entropy decreased when going from two to three profiles, increased in the four-profile solution, and then again decreased when moving from four to five profiles. Although the entropy value for the four-profile solution was the highest, none of the other indices suggested retention of this solution. The entropy value for the five-profile solution was the next highest, indicating that there was still good discrimination between five latent profiles, even though it was less distinctive than the four-profile solution. Two of the three information criteria and one of the two likelihood ratio test values provided an indication that the five-profile solution should be preferred over two- and four-profile solutions. The resulting five-profile solution was highly interpretable and, therefore, retained.

Table 3 displays the descriptive statistics for the five profiles on the five personality measures. Table 4 displays additional demographic information about the five profiles. To examine the profiles, a discriminant analysis using the five personality measures as class identifiers was conducted. Box's M (76.45, $p = .11$) indicated that the equality assumption of covariance matrices was met. All four of the extracted discriminant functions were significant and accounted for 36.5%, 30.4%, 26.8%, and 6.2% of the explained variance, respectively. The four-function solution accurately classified 98% of the original cases. Table 5 shows the canonical discriminant function coefficients of the four significant functions. Analysis of these coefficients shows that the first function is a combination of the Agreeableness and Neuroticism measures (indicators of social adjustment), whereas the remaining functions represent a single input variable each. Functions 2 through 4 depend on Conscientiousness, Openness, and Extraversion, respectively. Figure 1 presents the profiles with the measures ordered by their relationship to the derived functions.

Positive scores on the dimension of social adjustment (highly agreeable and emotionally stable) influenced classification into Profiles 1, 3, and 5. Negative social adjustment scores (disagreeable and more neurotic) characterized Profiles 2 and 4.

Table 3. Demographic Composition of Profiles.

	Profile 1 Pleasant Traditionalists n (%)	Profile 2 Possible Misfits n (%)	Profile 3 Laid Back Students n (%)	Profile 4 Serious Students n (%)	Profile 5 Typical Friendly n (%)	Total n (%)
Total	85 (21%)	31 (8%)	78 (19%)	73 (18%)	143 (35%)	410 (100%)
Gender						
Male	18 (21%)	8 (26%)	31 (40%)	22 (30%)	30 (21%)	109 (27%)
Female	67 (79%)	23 (74%)	47 (60%)	51 (70%)	113 (79%)	301 (73%)
Year in school						
Freshman	35 (41%)	14 (45%)	45 (58%)	21 (30%)	57 (40%)	172 (42%)
Sophomore	21 (25%)	8 (26%)	17 (22%)	18 (24%)	35 (25%)	99 (24%)
Junior	15 (18%)	4 (13%)	6 (8%)	15 (20%)	20 (14%)	60 (15%)
Senior	13 (16%)	4 (13%)	10 (13%)	17 (23%)	30 (21%)	74 (18%)
Missing/other	1 (1%)	1 (3%)	0 (0%)	2 (3%)	1 (1%)	5 (1%)

Profile 1, the *Pleasant Traditionalists* ($n = 85$), was so named for its members' agreeableness, emotional stability, and low openness to experience. These students were introverted and quite conscientious. The second profile was the smallest, with the most worrisome personality scores. Their introversion is similar to many of their peers, but the *Possible Misfits* ($n = 31$) were the least agreeable students. They were significantly less conscientious than all peers, with the exception of Profile 3. Their neuroticism scores were the highest of all the profiles and they were less open to new experiences than the norm group. The *Laid Back Students* of Profile 3 ($n = 73$) were the least conscientious, but quite emotionally stable, open minded, and agreeable. The *Serious Students* making up the fourth profile ($n = 78$) were so named for their high conscientiousness, introversion, and mild disagreeableness. Somewhat neurotic, these students were also extremely open minded. Profile 5 ($n = 143$) was the largest group, earning its students the label *Typical Friendly*. These students were most extraverted and agreeable, highly conscientious, emotionally stable, and open minded. Figure 1 illustrates how the profiles were different from each other based on class mean scores.

To investigate the relationship of the profiles to the other variables of interest, the variables of interest (suicidal ideation and perfectionism) were treated as distal outcomes. Specifically, each of the variables was specified as an auxiliary variable using the DU3STEP option in MPlus (Muthén & Muthén, 2012). The procedure treats the auxiliary variable as having unequal means and variances (Asparouhov & Muthén, 2014). In addition, in the three-step procedure, the auxiliary variables do not influence the formation of the latent classes, a problem of prior methods (Asparouhov & Muthén, 2014; Marsh et al., 2009). The overall chi-square tests for each of the auxiliary variables were significant, indicating that the profiles were significantly related to each of them. Table 6 presents the descriptive statistics for the variables and the results of the pairwise comparisons. A description of the findings for each variable follows.

Table 4. Personality Scores for the Profiles and Normative Group.

	Profile 1 Pleasant Traditionalists (n = 85) M (SD)	Profile 2 Possible Misfits (n = 31) M (SD)	Profile 3 Laid Back Students (n = 78) M (SD)	Profile 4 Serious Students (n = 73) M (SD)	Profile 5 Typical Friendly (n = 143) M (SD)	Total (N = 410) M (SD)	BFI norm age 21 (n = 15, 961) M (SD)
Extraversion	2.77 (0.79)	2.64 (0.81)	3.04[a] (0.80)	2.64 (0.83)	3.61 (0.86)	3.08 (0.92)	3.20[a] (0.83)
Agreeableness	3.88 (0.51)	2.62 (0.45)	3.82 (0.44)	3.08 (0.48)	4.21 (0.39)	3.74 (0.67)	3.64 (0.66)
Conscientiousness	4.02 (0.49)	3.12 (0.45)	2.89 (0.43)	4.21 (0.42)	4.11 (0.43)	3.81 (0.68)	3.44 (0.69)
Neuroticism	3.02 (0.78)	3.95 (0.59)	3.05 (0.84)	3.33 (0.83)	2.60 (0.76)	3.00 (0.87)	2.74 (0.79)
Openness	3.04 (0.42)	3.43 (0.51)	4.13 (0.48)	4.27 (0.42)	4.18 (0.41)	3.89 (0.654)	3.72 (0.63)

Note. Response options 1 to 5; Norm data from Soto, John, Gosling, and Potter (2011).
[a]Same as norm, all others differ from the norm.

Table 5. Standardized Canonical Discriminant Function Coefficients.

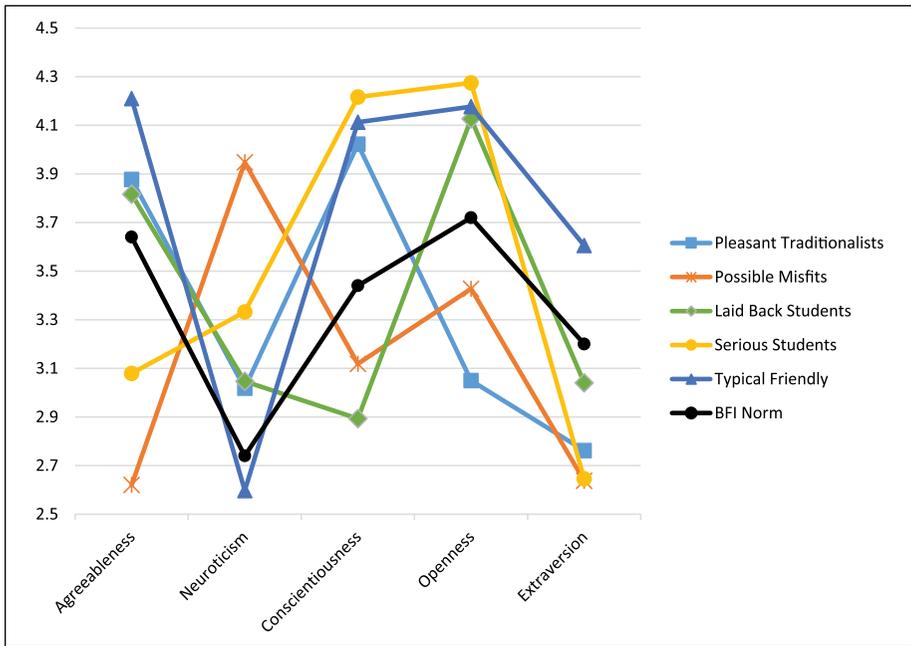|	Function			
	1	2	3	4
Extraversion	0.01	−0.04	−0.04	**0.98**
Agreeableness	**0.93**	−0.07	−0.09	0.05
Conscientiousness	0.04	**0.97**	−0.01	−0.01
Neuroticism	**−0.39**	−0.06	−0.04	0.01
Openness	0.11	−0.04	**0.99**	−0.03

Figure 1. Personality factors by profile in comparison with normative data.
Note. BFI = Big Five Inventory.

The students were very similar in their expectations for perfection from themselves (SOP). The only statistically significant differences were between the Laid Back Students and Possible Misfits (lowest) and the Serious Students (highest). The Laid Back Students were also lowest in their expectations for others' perfection (OOP) and the Serious Students, the highest. The Pleasant Traditionalists, Typical Friendly, and Laid Back Students had similar levels of concern that others expect perfection of them (SPP). The Possible Misfits had the highest SPP scores, with the Serious Students between them and the other three groups.

Table 6. Auxiliary Variable Scores by Profile.

	Profile 1 Pleasant Traditionalists (n = 85) M (SD)	Profile 2 Possible Misfits (n = 31) M (SD)	Profile 3 Laid Back Students (n = 78) M (SD)	Profile 4 Serious Students (n = 73) M (SD)	Profile 5 Typical Friendly (n = 143) M (SD)	Total (N = 410) M (SD)
SOP	74.84 (15.94)[b,c]	74.42 (15.14)[b]	71.72 (16.89)[b]	82.54 (16.44)[c]	75.86 (14.99)[b,c]	75.96 (16.13)
OOP	60.60 (10.37)[d,e]	64.19 (10.93)[e,f]	57.28 (14.03)[d]	67.64 (13.72)[f]	61.76 (12.18)[e]	61.91 (12.78)
SPP	52.87 (13.07)[g,h]	63.16 (15.53)	56.76 (14.95)[h]	59.55 (13.58)	52.46 (13.16)[g]	55.45 (14.14)
SI	9.33 (17.47)[a]	23.22 (28.23)	13.90 (14.93)	15.34 (15.89)	7.19 (10.23)[a]	11.58 (16.29)

Note. Profiles with common superscripts are not significantly different from each other. SOP = self-oriented perfectionism; OOP = other-oriented perfectionism; SPP = socially prescribed perfectionism; SI = suicidal ideation.

Table 7. Frequency of ASIQ Critical Item or High Scores by Profile.

	Profile 1 Pleasant Traditionalists (*n* = 85)	Profile 2 Possible Misfits (*n* = 31)	Profile 3 Laid Back Students (*n* = 78)	Profile 4 Serious Students (*n* = 73)	Profile 5 Typical Friendly (*n* = 143)	Total (*N* = 410)
Critically high	2 (2%)	6 (19%)	8 (10%)	7 (10%)	3 (2%)	26 (6%)
Multiple indicators	1 (1%)	1 (3%)	0 (0%)	1 (1%)	1 (1%)	4 (1%)

Note. ASIQ = Adult Suicidal Ideation Questionnaire.

Although our research questions were not concerned with gender differences, validation of the MPS identified significant differences by gender (Hewitt & Flett, 2004), meaning that our interpretations of MPS scores require gender-specific comparisons with the norm data. Male and female mean scores for each profile were compared with the normative sample of 18- to 24-year-olds in Hewitt and Flett's (2004) Community Profile. Most means were in the average range, but female Serious Students had mean scores more than one standard deviation above the normative mean on SOP (*M* = 84.02, *SD* = 14.48), which Hewitt and Flett (2004) described as pathological or maladaptive. Male Serious Students had mean OOP scores (*M* = 68.41, *SD* = 14.71) more than one standard deviation above the mean. The Possible Misfits males had scores more than 0.5 standard deviation higher than the norm mean in SPP (*M* = 63.38, *SD* = 16.20). The females in several profiles had moderately high scores (0.5 *SD* above the mean) in one or more of the perfectionism subscales: Pleasant Traditionalists SOP (*M* = 75.99, *SD* = 15.55); Possible Misfits SOP (*M* = 76.87, *SD* = 13.98), OOP (*M* = 65.30, *SD* = 12.36), SPP (*M* = 63.09, *SD* = 15.66); Serious Students OOP (*M* = 66.86, *SD* = 13.15), SPP (*M* = 61.10, *SD* = 14.02); Typical Friendly SOP (*M* = 76.83, *SD* = 15.26), OOP (*M* = 62.25, *SD* = 12.70).

ASIQ scores had a significantly positive skew. With a possible maximum score of 150, the average for this sample was 11.58 (*SD* = 16.29), indicating that very few students had seriously considered killing themselves. The pairwise comparisons did show statistically significant differences among the profile groups. The Possible Misfits had the highest scores followed by the Serious Students and then the Laid Back Students. The Pleasant Traditionalists and Typical Friendly were not different from each other but significantly lower than the other three groups. Two other ways of examining scores on the ASIQ is to look for critical item responses and total scores above 30. Twenty-six students had critical item scores above five (e.g., "This thought was in my mind a couple of times a week") or a total score above 30, the cutoff recommended for further assessment. Four students had multiple indicators of concern, including a high overall score and one or more high critical item score[2] (see Table 7). The distribution of critical scores within the profiles indicates the Pleasant Traditionalists and the Typical Friendly students were least concerning, with 95th percentile scores well below the cutoff of 31% and 3% of students in each group having critical-level indicators. The Possible Misfits group had the highest percentage of students with concerning critical scores (22%), with the Laid Back Students and Serious Students each having 10% of students with high ASIQ scores.

Discussion

Honors college students choose to participate in these rigorous programs. It benefits all stakeholders when they are successful, remaining positively engaged throughout their time in the program. Supports such as mandatory honors college housing and seminars designed to stimulate and engage can increase retention of these students (Goodstein & Szarek, 2013). Much attention has been paid to the characteristics needed for successful admissions (McKay, 2009; Smith & Zagurski, 2013). Even with very selective admissions criteria, however, honors college students are not likely to be entirely homogeneous, as the different profiles in this study indicate. One purpose of this study was to identify ways in which honors college students who can benefit from additional support may be recognized.

The research questions of the study could be addressed through an interpretation of the patterns identified through LPA. Honors college students were readily classified according to their personality characteristics. Two of the five profiles were similar to those found in studies of the general population (e.g., Roth & van Collani, 2007; Zhang et al., 2015), as will be discussed below. The five personality profiles exhibited distinctive perfectionistic tendencies. Suicidal ideation was evident in all profiles, but critically high scores appeared more frequently in three. Although all college campuses are likely to have variability in their students' personality types, counselors, advisors, residence life assistants, and faculty may be able to recognize students with the characteristics of the five profiles among them. Our knowledge base about each of the constructs included in the study suggests students from each profile may benefit from different interventions.

Honors College Student Profiles

These honors college students shared several characteristics. All of them were higher in conscientiousness than the norm group of young adults their age. Average scores in four of the profiles indicated greater emotional instability and higher introversion than in the norm group. A majority of these honors college students will not be likely to seek out—or enjoy—highly stimulating social experiences. Only the Typical Friendly group was more extraverted and emotionally stable than the norm. In fact, nearly two thirds of students in this sample had higher neuroticism scores than the norm group, although only the Serious Students and Possible Misfits had scores that indicate possible emotional instability. Were we to consider average scores for the full sample, it would appear that honors college students tend to be more similar to the norm than any of these profiles suggest. A person-centered approach to this analysis allows for a richer comparison. From a psychological perspective, the profiles reflect greater individual variability and the potential for effective interventions for struggling students.

Herzberg and Roth (2006) pointed out that variations have been found in personality prototypes of samples with unique composition (e.g., among prisoners or delinquents). As in much other psychological research, most personality prototype research samples are composed of college students (Herzberg & Roth, 2006). It is interesting, therefore, to consider how the profiles of this sample of high-achieving students may

differ in its composition from prototypes that have been found in a large number of studies (e.g., Asendorpf et al., 2001; Roth & von Collani, 2007; Zhang et al., 2015). Two profiles are a good fit with previously reported prototypes: The Typical Friendly students were high in extraversion and conscientiousness and low in neuroticism, similar to the resilients prototype, and the Possible Misfits were high in neuroticism and low in extraversion, similar to the overcontrolled prototype. The general trend in this honors college sample toward high conscientiousness, openness, and introversion, make the other profiles less similar to prototypes that have been found in other studies (e.g., Herzberg & Roth, 2006; Rammstedt et al., 2004; Roth & von Collani, 2007; Zhang et al., 2015).

The Possible Misfits profile. The students who may face the greatest difficulties in honors colleges are likely to be those matching the Possible Misfits profile. Introverted, disagreeable, neurotic, not very conscientious, and somewhat closed minded, these students should be easily recognizable to faculty, staff, and peers. Their beliefs about others' expectations for their perfect performance (SPP) can be detrimental to their overall mental health. Concerns about being evaluated can lead to a variety of health problems, including suicidal ideation (Hewitt et al., 1992; Speirs Neumeister, 2015). The pattern of responses on the perfectionism scale for the Possible Misfits was moderately high on all three dimensions for females, mirroring the correlations found between personality and perfectionism in previous research (Stoeber, 2014). According to Hewitt and Flett (2004), this pattern of elevated scores may manifest in psychological difficulties, exacerbated by the chaos and stress that accompanies these forms of perfectionism. The Possible Misfit females may have identity issues and difficulty with interpersonal relationships. Possible Misfit males had moderately elevated scores on SPP only, which is likely to manifest in a fear they will not be accepted by others if they do not perform at the unrealistically high level they perceive others expect of them. They may fear rejection by others and believe they are failures, even when they have been successful (Hewitt & Flett, 2004). In a review of personality prototype research, Donellan and Robins (2010) reported that outcomes found in numerous studies for members of the overcontrolled prototype are often negative, primarily to the self (e.g., high internalizing problems, loneliness, and hostile attribution).

The small Possible Misfits profile contains the highest percentage of suicide ideators (22%; see Table 7). Their disagreeability and introversion suggest these students might be reluctant to accept support from others. Their low conscientiousness and closed mindedness may put them at particular risk of academic failure (Costa & McCrae, 1992; McKay, 2009). Although personality measures tend to be stable over time, environmental supports may keep the Possible Misfits from entering a downward spiral (T. L. Cross & Cross, 2017a). It is not realistic to assume these students should be drawn into highly stimulating social situations, but they may respond well to one-on-one interactions. Peer mentoring, perhaps with similarly introverted Pleasant Traditionalists or Serious Students, may be a more successful approach. The Possible Misfits could benefit from study skills workshops that encourage organization and other more conscientious behaviors.

Concerns among students of the Possible Misfits profile about being evaluated may have pushed them to higher levels of performance, but the combination of their SPP and neuroticism may put these students at greater risk of depression and anxiety (Moutafi et al., 2005; Stoeber & Otto, 2006). Professional counseling should be readily accessible to these students.

The Laid Back Students profile. Although not as concerning as the Possible Misfits, the Laid Back Students may also be at risk as honors college students. Their emotional stability, agreeableness, and open mindedness are likely to be protective factors in their college careers. Where these students are likely to need support is in completing academic tasks, particularly if they do not find them interesting. They may be "laid back" thinkers when it comes to completing their academic assignments. Faculty who appreciate their abilities and offer flexibility in assignments are likely to have greater success with these students. It may be important that this is the profile with the highest percentage of freshmen (see Table 3).

The Laid Back Students' low conscientious scores may come partially from a lack of confidence in their organization skills and they may benefit from academic skills workshops. These may be students who received a great deal of support from others (i.e., parents) during their high school years, suggesting they may be at risk once they are on their own in college. The Laid Back Students are less likely than their Possible Misfits peers to need professional counseling, however, due to their greater emotional stability and lower concern over being evaluated (SPP). All the perfectionism scores in this profile were in the average range.

The Pleasant Traditionalists profile. Like most of their honors college peers, the students in the Pleasant Traditionalists profile were more introverted than the norm. Highly agreeable, very conscientious, and emotionally stable, there are not many indicators of concern among these students. They are similar to their peers in their perfectionistic tendencies, although they have less concern about others' expectations for their perfect behavior than the Serious Students and the Possible Misfits. Paired with their emotional stability, these students have particularly strong mental health indicators. Even so, 3% of the Pleasant Traditionalists reported suicidal ideation.

Pleasant traditionalist females, but not males, had moderately high SOP scores. Without other elevated scores, however, these are not particularly worrisome and may be adaptive (Klibert et al., 2005). An indication that the Pleasant Traditionalists may be at risk in the honors college is their lack of openness to experience. They had the lowest average scores on this personality factor (see Table 4 and Figure 1). These students may find it difficult to fit in with other students in the honors college who are likely to prefer greater diversity in ideas and experiences. Some honors college programs highly prize creativity and openness to new experience (Smith & Zagurski, 2013), whereas others may not place such a high priority on these characteristics. The fit of the student with the program and with peers should be considered in the case of any struggling student. The Pleasant Traditionalists made up 21% of the students in this sample. These students would not be alone in their less varied preferences among honors college students in their program.

The Serious Students profile. Approximately one fifth of the students in this honors college sample fit the stereotype of a serious scholar. Introverted, mildly agreeable, highly conscientious, and very open to experience, the Serious Students were likely to be very focused on their studies. These students considered themselves to be original, deep thinkers, and highly reliable. They were somewhat neurotic—a little tense, depressed, nervous—but not at the level of their Possible Misfits peers. They had very high expectations for their own perfect behavior and believed that others have high expectations for their perfect behavior. Although they appeared to be model students, the neuroticism and high SPP could make them vulnerable to depression.

Both males and females in the Serious Students profile have high SOP scores, in the moderately high range among males and potentially maladaptive range among females. In addition, their OOP scores are also elevated, although more so for the males than the females. Hewitt and Flett (2004) reported that, when individuals exhibit this pattern, it is likely that

> anger and hostility directed toward others will frequently be very evident and present major difficulties in the individual's life . . . [B]oth the perfectionistic individual, as well as others around the individual, will suffer as a result of the perfectionism. (p. 22)

Female Serious Students had an additional compounding factor of moderately high SPP. Like their Possible Misfit female peers, these students may have difficulty with depression, accepting others who cannot meet their unrealistic expectations, and fears of rejection or looking foolish (Hewitt & Flett, 2004).

The Serious Students may need to be coaxed into nonacademic activities, which should be low key and intimate to avoid overstimulation. With 11% of students in this profile expressing suicidal ideation, there should be a watchful eye on their mental health needs.

The Typical Friendly profile. The majority of students in this sample were classified in the Typical Friendly profile (35%). These students were more extraverted, agreeable, conscientious, emotionally stable, and open minded than most of their peers in the honors college and the norm (see Table 4 and Figure 1). Only the Serious Students were equally conscientious. The Typical Friendly students were similarly perfectionistic to their peers, except less concerned about the evaluation of others than the Possible Misfits. Females in the Typical Friendly group had moderately high SOP and OOP scores. This pattern of high scores suggests they may suffer from frustration with their own imperfect behaviors or that of those around them. They may attempt to dominate social interactions or be hostile and authoritarian (Hewitt & Flett, 2004), making interpersonal relationships difficult.

With their positive personality scores, these typical honors college students appear to fit the ideal profile. This profile matches the resilients prototype, which has been associated with positive outcome measures in the research literature (e.g., high school performance, low internalizing and externalizing problems; Donellan & Robins, 2010). Only 3% of this large group reported suicidal ideation. This does indicate, however, that

their mental health is not assured. Having all the other hallmarks of a successful student may not protect them from depression and negative ideation.

Introversion

It should come as no surprise that a majority of the honors college students in this sample, many of whom would meet the criteria for giftedness, were introverted, as higher rates of introversion have been previously reported (Sak, 2004). Approximately two thirds of the honors college students in this sample were more introverted than the norm. The preference for reduced stimulation, including less interaction with others, is contrasted with greater sociability and, even, happiness among extraverts (Wilt & Revelle, 2009). Perhaps, introversion is at the foundation of a self-perception of greater "seriousness" than peers that gifted students report (T. L. Cross, Coleman, & Stewart, 1995). With so much evidence regarding a preference among high-ability students for introversion, environments designed for their academic success must be attentive to this personality factor.

Clearly, not all honors college students will be introverts, as the large Typical Friendly profile with its extraversion scores significantly higher than the norm, indicates. Honors colleges must be prepared for both extraverts and introverts in their programs. In planning for their introverted students, however, it is insufficient to assume they simply desire to be alone. Introverts have heightened sensitivity to stimuli and may attempt to avoid overstimulation by withdrawing from noisy, crowded, brightly lit environments. This does not mean they do not like or want to be with others. Introverts tend to prefer quiet settings and spending time with one person or in small groups. Keeping students interested through programs built on social organizations may be effective for Typical Friendly honors college students, but smaller peer mentoring groups may be a better means of developing connections for the majority of honors college students. Building community, which Goodstein and Szarek (2013) found to be effective in increasing honors college student retention, requires an understanding of personality differences among students.

Limitations

Although LPA allows for objective decision making, the indicators of fit in this analysis were mixed and, therefore, not conclusive. Our choice of the five-profile solution is supported by prior research on personality profiles (e.g., Rammstedt et al., 2004; Zhang et al., 2015) and the interpretability of profiles found in our sample. It is possible, however, that alternative models could be found to better explain the data.

Efforts were made to be as inclusive as possible in our recruitment of participants, but this sample is only a subset of all honors college students at the participating university. This volunteer sample may be unique. The time required to complete the full survey battery was not trivial. Students who completed the survey may have been higher in conscientiousness than those who did not participate. With the large percentage of students represented in the sample, however, a selection bias was hopefully

avoided. A majority of students in the sample were female (73%), but it should be noted that the gender distribution was similar across profiles. This suggests the profiles may adequately reflect characteristics of students in the broader honors college population. Due to their varied admissions criteria and program objectives, honors colleges will differ in the profiles of students they attract. Similar studies should be conducted at a variety of institutions.

Conclusion

Despite their similar high academic achievement, honors college students are not a homogeneous group, as evidenced by these results. The profiles identified here had unique associations with perfectionism and suicidal ideation. Program administrators, faculty, and counselors who want these students to be successful would be wise to consider their psychological heterogeneity in planning of programs and activities. To be admitted to an honors college, students must have proven academic abilities. Success in college, however, requires learning and coping skills that may be new to them. The Possible Misfits, in particular, may not maintain their honors college status without psychological support. Activities and environments catering to the majority of introverts may not be appealing to highly extraverted Typical Friendly honors college students. The opposite is also true. Counseling should be accessible to all honors college students and may, in fact, be a greater need in this population. Four of the five profiles had higher neuroticism scores than the norm group. Honors college students may need (and be particularly interested in) exploring their higher than average tension and emotional responses. With attention to the diverse psychological profiles of honors college students, programs can garner greater student engagement and, perhaps, higher completion rates.

Notes

1. The Miller, Lambert, and Speirs Neumeister (2012) sample is part of the database collected for a consortium to study the psychology of honors college students, also used in the present study.
2. Students with high critical item or total scores were contacted by the lead investigator and encouraged to seek support from the university's counseling center, which was alerted of their status.

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