

Original Article

Dark Triad Personality and Wisdom in Prediction of Students' Academic Self-Efficacy

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Abstract

Introduction: A number of studies have argued that students' academic self-efficacy is affected by various factors. This study investigates the role of the dark triad personality and wisdom on the Iranian students' academic self-efficacy.

Methods: In this correlational study, 177 (84 female and 93 male) students of the University of Isfahan aged 18-54 years old (M = 23.1, SD = 4.9) were selected. Total academic mean range of the participants was 10 to 20 (M = 16.4, SD = 1.6). Participants completed the College Academic Self-Efficacy Scale, The Dark Triad Dirty Dozen, and Three-dimensional wisdom scales.

Results: Results showed that there was a negative relationship between the variables of Machiavellianism and psychopathy and academic self-efficacy; inversely, there was a positive relationship between variables of cognitive and reflective wisdom and academic self-efficacy. Reflective wisdom, narcissism, and Machiavellianism predicted 0.17% of the self-efficacy.

Conclusion: The results of the present study supported the importance of the dark triad personality and wisdom, as the variables, which were able to predict the academic self-efficacy of the students.

Keywords: Machiavellianism, Psychopathy, Narcissism, Self-Efficacy, Wisdom

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Introduction

Academic self-efficacy is of great importance for learning and performance improvement, and eventually leads the students towards the attainment of the academic achievements (1). Self-efficacy is defined as the people's perception as the targeted, active, self-evaluator and self-monitoring agents (2). A number of meta-analyses indicated that self-efficacy effectively predicted motivation and performance

(3). Academic self-efficacy refers to the belief that people can successfully achieve a certain academic activity or objective on a pre-determined level (4). Perceived academic self-efficacy does not refer to the individual skills; instead it encompasses the personal belief that people can achieve the predefined objectives under certain conditions and academic opportunities. These subjects can benefit from appropriate solutions for solving their problems and increase their resistance to solve academic problems (5).

Personality traits are the factors affecting academic self-efficacy (6). The Theory of Planned Behavior (TPB) demonstrates that personality traits play a major role in predicting cognitive beliefs (7). For 25 years, the majority of studies have focused on the big five personality dimensions including openness, conscientiousness, extroversion, agreeableness and neuroticism (8). Nevertheless, during the recent decade, personality psychologists have concentrated on the dark triad personality in their studies, including Machiavellianism, psychopathy, and narcissism, known as the dark triad or dark personality (8, 9). Paulhus & Williams are considered to be the pioneers of this thought and stated that these three traits denoted on wickedness, emotionally cold, trickery and aggression to refer to the aspects of dark and dirty personality (10).

Machiavellist school of thought may be characterized by deceitful, manipulative, self-seeking, utilitarian, explorative, cynical, indifferent, emotionally cold, unscrupulous, and egocentric behaviors (11). Investigations showed that high levels of Machiavellianism with higher motivation is associated with a tendency towards the deviant behaviors and perception of the low punishments (12). Psychopathy is a personality disorder, mainly characterized by lack of empathy with others and lack of repentance for sins or mistakes (13, 14). Psychopathy disorder has been considered as the main risk in predicting the criminal behavior and incarceration for a long time and has been significantly observed among the imprisoned criminals (15). In addition, there is extensive evidence revealing that there is a negative correlation between the psychopathic behaviors and academic performance (16).

Narcissism is an oriented trait including a sense of entitlement and feeling a privileged status compared to others; these people believe that they have a unique personality and are more important than others. They largely need to be approved and admired by others; however, they are vulnerable and are rejected by others (17). There is a positive relationship between self-efficacy, Machiavellianism and narcissism; however, there is no significant relationship between self-efficacy and narcissism (18).

In contrast to pathological approaches, the positive psychology approach focuses on the individual abilities. Wisdom is one of the concepts that underpins the construct (19). The concept of wisdom has a long history which is considered to be among the oldest religious and philosophical texts. This concept has recently been taken into account by psychologists and has been variously defined; however, no universal definition has been offered for it (20). There are at least two advantages for studying the concept of wisdom in behavioral sciences.

First, research on wisdom provides the background for continuous optimization and cultural evolution, and second, wisdom is a true example of collaboration among the cognitive, emotional and motivational processes of the man (21). Wise people have problem-solving skills that enable them to use their knowledge and judgment in dealing with their own problems and those of the others. Furthermore, spirituality is one of the components of wisdom (22). Cognitive abilities and concern for the others, humor accompanied by the ability to deal with conflicts, ability to assess the consequences of the individual behaviors and their effects on the surrounding people and a balance between internal and external interests are other traits of the wise people that were mentioned in the research background (23, 24). In positive psychology, wisdom is defined as a coordination of knowledge and experience and using it to enhance and improve well-being (25). Results of previous studies revealed that there is a relationship between wisdom and physical health and quality of life (26).

As stated before, dark triad personality denotes the dark and dirty side of the personality. In this manner achievement of personal goals by the virtue of deceit, hypocrisy, hostility, and self-interest is made possible. Contrary to this, Etemadi & Saadat argued that positive psychology and wisdom demonstrate that wise people with cognitive, emotional, and motivational coordination and respect for the rights of others and with a coordination of their knowledge and experience seek to achieve well-being and success (27). This study examines the role of both positive and negative aspects associated with the predictions of students' academic self-efficacy. Academic self-efficacy is an effective factor of academic achievement (5). Accordingly, identifying the affecting factors can help students' academic achievement. Although extensive research has been done in Iran and abroad on the academic self-efficacy, no study was found to simultaneously examine the dark triad personality and wisdom to predict students' academic self-efficacy. This raised the question that "is there a significant relationship between academic self-efficacy and dark triad personality (Machiavellianism, narcissism and psychopathy) and wisdom?" Moreover, the identification of the predictor variables is also unknown that can strongly predict the students' academic self-efficacy. Therefore, this research revolved around one factor that refers to the negative aspect of the people (dark side) and the other that refers to their positive aspect (wisdom).

Methods

In this correlational study, 177 (84 (47.5%) female and 93 (52.5%) male) students at University of Isfahan aged 18-54 years old (23.1 ± 4.9) were selected. Average

educational grading range of the participants was 10 to 20 (16.4 ± 1.6). The inclusion criteria of the study are as follows: 1) the students' satisfaction and interest in participating in research, and 2) professors' consent to enter the classroom to administer the questionnaires. In terms of the educational courses, 96 (54.2%) students were bachelor, 45 (25.4%) were master, and 36 (20.4%) were PhD students.

The Owen and Froman questionnaire has 33 items scored from 1 (very low) to 5 (very high), and it measures the confidence of students in connection with taking notes, asking questions, paying attention in class, using computers and so on. Since item 28 was related to the laboratory that was not included in all disciplines, this item was removed from the Persian copy; therefore, the number of the statements was reduced to 32 items. In the Persian version, internal consistency reliability was reported for the whole test (Cronbach's $\alpha=0.91$), for female students ($\alpha=0.90$) and for male students ($\alpha=0.91$). Validity of this questionnaire has been investigated using exploratory factor analysis and confirmatory factor analysis (5).

The scale of the Dark Triad Dirty Dozen was proposed by Jonason and Webster (2010) with 12 items as a self-report questionnaire that measures three personality traits of Machiavellianism, psychopathy and narcissism. This questionnaire was scored based on the Likert scale from 1 (strongly disagree) to 7 (strongly agree). The minimum and maximum scores in this scale were 12 and 84, respectively. The internal consistency of the test ($\alpha=0.83$) has been reported together with its validity approval (28). In another study, internal consistency ($\alpha=0.85$) has been reported for the whole scale (8). The questionnaire was translated in Iran, and its psychometric properties were analyzed. Correlation between items and total score of the scale (0.22-0.80) and subtests and total score of the scale (0.75-0.83) were reported. Besides, its internal

consistency ($\alpha=0.81$) and split-half reliability were reported as 0.78 (29).

The three-dimensional wisdom scale was developed by Ardel (30). It has 39 items and measures three cognitive, reflective and affective dimensions of wisdom. Items are scored based on the Likert scale from 1 (strongly agree) to 5 (strongly disagree) or from 1 (definitely true for myself) to 5 (not true for myself). The minimum and maximum scores of this scale are 39 and 195, respectively. Ardel reported the internal consistency of this scale in a sample of the students for cognitive ($\alpha=0.78$), reflective ($\alpha=0.75$) and affective dimensions ($\alpha=0.74$) and for the total score ($\alpha=0.72$). Confirmatory factor analysis confirmed that these three dimensions and the standard values were 0.50-0.84. Content validity of the test based on the respondents was reported as 88.2%, with the respondents acknowledging that this scale measured wisdom of the people (26). Another study showed that internal consistency of this scale was $\alpha=0.82$. Internal consistency of this scale has been reported as $\alpha=0.82$ in Iran (31).

The correlation between variables was analyzed. Then, stepwise regression was used to determine which predictor variable could strongly predict the students' academic self-efficacy, and dark triad personality (Machiavellianism, narcissism and psychopathy) and wisdom (cognitive, reflective, and affective) were regarded as the dependent variables. SPSS.18 was used for data analysis.

Results

In terms of marital status, 158 students (89.26%) were single and 19 (10.73%) were married. In terms of employment status, 18 of them (10.16%) were employed and 159 (89.83%) were unemployed. A summary of descriptive statistics and correlation coefficient of variables are shown in Table 1.

Table 1. Descriptive statistic and bivariate correlations between study variables

Variable	1	2	3	4	5	6	7
1. Academic self-efficacy	1	-0.226**	0.101	-0.214**	0.248**	0.325**	0.106
2. Machiavellianism		1	0.205**	0.572**	-0.308**	-0.211**	-0.235**
3. Narcissism			1	0.211**	-0.199**	-0.193**	-0.125
4. Psychopathy				1	-0.385**	-0.184*	-0.244**
5. Cognitive					1	0.431**	0.281**
6. Reflective						1	0.211**
7. Affective							1
Range	60-172	4-28	4-28	4-28	24-67	16-36	26-67
Mean \pm SD	107.61 \pm 18.16	6.46 \pm 4.46	15.37 \pm 6.61	8.71 \pm 3.83	46.59 \pm 7.36	27.92 \pm 3.88	38.03 \pm 5.07

The results of correlation coefficient indicate a negative correlation between variables of Machiavellianism and psychopathy and academic self-efficacy ($P < 0.01$). In contrast, there is a positive correlation between variables of cognitive and reflective wisdom and academic self-efficacy ($P < 0.01$). However, there is no significant relationship between variables of narcissism and emotional wisdom and academic self-efficacy (Table 1).

Stepwise linear regression was used in this study to predict the based on the predictor variables, dark triad personality (i.e., Machiavellianism, narcissism, and psychopathy) and wisdom (i.e., cognitive, reflective, and

affective) (Table 2). If Durbin-Watson statistic is between 1.5 and 2.5, independence of errors is achieved. In the present regression model, Durbin-Watson was 1.92, reflecting the independence of errors. In the first step, reflective wisdom variable appeared ($\beta = 0.322$, $t = 4.590$, $P < 0.01$). In the second step, narcissism variable appeared in the model ($\beta = 0.204$, $t = 2.848$, $P < 0.01$). Finally, the third step, Machiavellianism appeared in the regression equation ($\beta = -0.200$, $t = -2.774$, $P < 0.01$). Overall, results showed that variables of reflective wisdom, narcissism and Machiavellianism could predict 17% of the variance of students' academic self-efficacy.

Table 2. Stepwise regression analyses on academic self-efficacy

Model	R	R ²	F	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
				B	Std. Error	Beta		
Constant				62.177	10.740		5.789	<0.001
Reflective	0.413	0.170	11.835	1.507	0.336	0.322	4.490	<0.001
Narcissism				0.560	0.197	0.204	2.848	0.005
Machiavellianism				-0.812	0.293	-0.200	-2.774	0.006

Discussion

The present study was performed to investigate the dark triad personality (Machiavellianism, Narcissism and psychopathy) and Wisdom (cognitive, reflective and emotional) in order to predicate students' self-efficacy. The results implied that the variables of Machiavellianism and psychopathy had a negative and significant relationship with academic self-efficacy. Other results showed that cognitive and reflective wisdom variables represented a positive correlation with academic self-efficacy. But narcissism and emotional intelligence did not present a significant relationship with academic self-efficacy. At sum, the results of regression showed that reflective wisdom, narcissism and Machiavellianism variables were able to predicate 17% of variance for academic self-efficacy in students. They have significant role but they are not so strong to determine self-efficacy.

However, it is also found that Machiavellianism refers to the communal trait which is assumed to be adversely associated with conscientiousness. It is assessed that Machiavellians are more reality-oriented and grounded due to the aspect of self-efficacy in context of academics, in which self-enhancements are not seen. Scholarly self-adequacy alludes to the conviction that individuals can effectively accomplish a specific scholastic movement or goal on a pre-decided level (4). As a scholarly matter, self-viability does not allude to the individual aptitudes; rather, it envelops the individual conviction that individuals can accomplish the predefined targets under specific conditions and scholastic open doors. These individuals can profit by fitting answers for taking care of

their issues and increment their imperviousness to take care of scholastic issues (5).

In present research, predictors' variables could not indicate high predication power to determine academic self-efficacy. In some of studies, it was shown that personality specification has median relationship with self-efficacy (32). In research which considered role of personality specification and self-efficacy on educational performance, the results showed that self-efficacy plays role as partial intermediate between performance and consciousness (33). In a study which was performed in the role of Five-Factor Model of personality on self-efficacy, the results indicated that conscientiousness and extraversion and lower neuroticism have relationship with high self-efficacy (34). Since, the present research was concentrated on dark personality aspects and consciousness but the most of the studies discussed Five-Factor Model in predication of self-efficacy, the results could not be compared. But results of previous studies support importance of personality characteristics in predication of self-efficacy, although, the relations are weak.

Hence, it is assessed that with respect to key identity highlights, our discoveries propose that, in non-clinical samples, individuals from the dark triad share a typical center of obnoxiousness. In this way, the base of their social damaging tendency is exasperatingly typical - even trite. Mixed with repulsiveness, the negligible uneasiness of mental cases may make them the most deceptive of the

three - even inside the typical scope of identity found in our specimen. Our later work has bolstered this dread.

Limitations of this research: A wide assortment of self-report and also behavioral measures of withdrawn conduct were fundamentally anticipated by psychopathy yet not by Machiavellianism or narcissism. The trouble in translating the measurable data likewise turned out to be the one of the real constraints experienced by the scientist. Nonetheless, this trouble was overcome by taking the guide of books joined with the data accessible on web. The constrained sample size can likewise be arranged among the constraints of the review due to which prohibitive point of view of the highlighted issue has been investigated by the analyst.

Conclusion

Dark triad personality (Machiavellianism and psychopathy) and wisdom (cognitive and reflective) are correlated with academic self-efficacy in students, but the correlation coefficients are not very strong, accordingly, it is necessary to be considered in future research. The discovery defies the generalization of the smooth talking controller but bolsters the idea of an intricate scholarly shortage. One probability is that the disappointment emerging from powerlessness to impart ones thoughts eventuates in more vindictive relational techniques. Another probability is some unobtrusive neurological shortage. It has also been signified that self-efficacy is a social-cognitive approach-based multidimensional construct and is defined as the people's conceptualization as the targeted, active, self-evaluator and self-monitoring agent. Moreover, the analysis of the primary data revealed that positive psychology and wisdom can help wise people with cognitive, emotional and motivational coordination and respect for the rights of others and with a coordination of their knowledge and experience seek to achieve the well-being and success which can help an individual in achieving academic goals and objectives.

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References

1. Zimmerman BJ. Self-efficacy: An essential motive to learn. *Contem Educ Psychol*. 2000; 25(1): 82-91.

2. Bandura A. Human agency in social cognitive theory. *American Psychologist*. 1989; 44(9):1175-1184.

3. Komarraju M, Nadler D. Self-efficacy and academic achievement: Why do implicit beliefs, goals, and effort regulation matter? *Learning and Individual Differences*. 2013; 25: 67-72.

4. Bandura A. *Self-efficacy: The exercise of control*. Macmillan; Worth Publishers; 1997.

5. Saadat S, Asghari F, Jazayeri R. The relationship between academic self-efficacy with perceived stress, coping strategies and perceived social support among students of University of Guilan. *IJME*. 2015; 15:67-78. [Persian]

6. Caprara GV, Vecchione M, Alessandri G, Gerbino M, Barbaranelli C. The contribution of personality traits and self-efficacy beliefs to academic achievement: A longitudinal study. *Br J Educ Psychol*. 2011; 81Pt: 78-96.

7. Fishbein M, Ajzen I. *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley; 1975.

8. Kajonius PJ, Persson BN, Rosenberg P, Garcia D. The (mis)measurement of the Dark Triad Dirty Dozen: Exploitation at the core of the scale. *PeerJ*. 2016; 4: e1748.

9. Kowalski CM, Vernon PA, Schermer JA. Vocational interests and dark personality: Are there dark career choices? *Personality and Individual Differences*. 2017; 104: 43-47.

10. Paulhus DL, Williams KM. The dark triad of personality: Narcissism, machiavellianism, and psychopathy. *Journal of Research in Personality*. 2002; 36(6): 556-563.

11. Ináncsi T, Láng A, Bereczkei T. Machiavellianism and adult attachment in general interpersonal relationships and close relationships. *Europe's Journal of Psychology*. 2015; 11(1): 139.

12. Birkás B, Csathó Á, Gács B, Bereczkei T. Nothing ventured nothing gained: Strong associations between reward sensitivity and two measures of Machiavellianism. *Personality and Individual Differences*. 2015; 74: 112-115.

13. Hare RD. *The Hare psychopathy checklist-revised*. Toronto, ON: Multi-Health Systems; 1991.

14. Meffert H, Gazzola V, Den Boer JA, Bartels AA, Keyzers C. Reduced spontaneous but relatively normal

- deliberate vicarious representations in psychopathy. *Brain*. 2013; 136(8): 2550-2562.
15. Reid JA. Crime and personality: Personality theory and criminality examined. *Inquiries Journal*. 2011; 3(01). Available from: <http://www.inquiriesjournal.com/a?id=377>
16. Vaughn MG, DeLisi M, Beaver KM, Wexler J, Barth A, Fletcher J. Juvenile psychopathic personality traits are associated with poor reading achievement. *Psychiatr Q*. 2011; 82(3): 177-190.
17. Miller JD, Campbell WK, Pilkonis PA. Narcissistic personality disorder: Relations with distress and functional impairment. *Compr Psychiatry*. 2007; 48(2): 170-177.
18. Zhao H, Zhang H, Xu Y. Does the dark triad of personality predict corrupt intention? The mediating role of belief in good luck. *Front Psychol*. 2016; 7: 608.
19. Sternberg R, Jordan J (editors). *A handbook of wisdom: Psychological perspectives*. 1st edition. Cambridge University Press; 2005.
20. Asadi S, Amiri Sh, Molavi H, Bagheri K. Introducing concept of wisdom in psychology and its educational applications. *New Educational Approaches*. 2013; 8(2):1-28. [Persian]
21. Staudinger UM, Glück J. Psychological wisdom research: Commonalities and differences in a growing field. *Annu Rev Psychol*. 2011; 62: 215-241.
22. Jason LA, Reichler A, King C, Madsen D, Camacho J, Marchese W. The measurement of wisdom: A preliminary effort. *J Community Psychol*. 2001; 29: 585-598.
23. Glück J, Bischof B, Siebenhüner L. "Knows what is good and bad", "Can teach you things", "Does lots of crosswords": Children's knowledge about wisdom. *European Journal of Developmental Psychology*. 2012; 9(5): 582-598.
24. Webster JD. An exploratory analysis of a self-assessed wisdom scale. *Journal of Adult Development*. 2003; 10(1): 13-22.
25. Peterson C, Seligman ME. *Character strengths and virtues: A handbook and classification*. Publisher: American Psychological Association. Oxford University Press; 2004.
26. Ardel M. Wisdom and life satisfaction in old age. *J Gerontol B Psychol Sci Soc Sci*. 1997; 52B(1): 15-27.
27. Etemadi O, Saadat S. Role of family health and attachment styles in prediction of students' academic self-efficacy. *Educ Strategy Med Sci*. 2015; 8(4): 195-201. [Persian]
28. Jonason PK, Webster GD. The dirty dozen: a concise measure of the dark triad. *Psychol Assess*. 2010; 22(2):420-432. doi: 10.1037/a0019265.
29. Ghamarani A, Samadi M, Taghinejad M, Shamsi A. The study of the validity and reliability of the dark personality scale in students. *J Psycho Mod Meth*. 2016; 6(20):73-85. [Persian]
30. Ardel M. Empirical assessment of a three-dimensional wisdom scale. *Research on Aging*. 2003; 25(3): 275-324.
31. Asadi S, Amiri S, Molavi H. The development of wisdom from adolescence to elderly. *Journal of Psychology*. 2015; 19(1): 37-52. [Persian]
32. Güngör F, Kurt H, Ekici G. The relationship between personality types and self-efficacy perceptions of student teachers. *Procedia-Social and Behavioral Sciences*. 2014; 116: 786-790.
33. Fosse TH, Buch R, Säfvenbom R, Martinussen M. The impact of personality and self-efficacy on academic and military performance: The mediating role of self-efficacy. *Journal of Military Studies*. 2015; 6(1): 47-65.
34. Brown D, Cinamon RG. Personality traits' effects on self-efficacy and outcome expectations for high school major choice. *International Journal for Educational and Vocational Guidance*. 2016; 16(3): 343-361.