

Gender Differences in Neuroticism on College Students

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Abstract. The main goals of this research are to find out the differences of neurotic levels between man and women and to find the relation between age and neuroticism personality. There were 51 students of Department of Psychology of the Malang Muhammadiyah University participated in this research. They were taken through cluster random sampling. The neuroticism personality scale was used and arranged based on theory [1]. There were significant differences between male and female neuroticism personality (t-test = 2.138, df =49, P<0.05) where males' neuroticism usually lower than females. (Mean=111.833 for males and Mean=127.303 for females). The research results also showed there was significantly negative correlation between ages and neuroticism personality ($r_{xy} = - .340$, P<0.05). The younger the students the higher their neuroticism personality level and it's getting lower when the students are older.

Keywords: Neuroticism, gender differences, age, college students

Introduction

Personality is the most influential psychological aspect for academic achievement in the university. Besides intelligence, students' academic achievement is influenced mostly by personality [2,3]. Neuroticism is one personality aspect that's interesting to be explored further. It's one trait of big five personality aspects. Trait personality defined as relatively permanent thinking patterns, feelings and behavior that distinguished one person from another [4]. One with high score on neuroticism personality usually characterized as anxious, anger, depression, high level of self-awareness, impulsive and vulnerable [1]. Their emotion is unstable or their emotional intelligence is low [5]. Those with low score on neuroticism characterized as confident, calm, soft and relax. Low neurotics term is used interchanging with emotional stability [6].

Seroja Bai [7] research found that the most influential factor toward students' academic success is emotional intelligence (80%), compared to intelligence quotient (20%). Low level of emotional intelligence usually found among students with high level of neurotics personality, and this may affect both hard and soft skills in their academic achievement. Some research found that neurotics personality have negative correlation with dentistry students' [2] or medical students' academic achievement [8]. Students with low level of neuroticism show higher academic achievement and are more successful in their career than high ones. Neuroticism also influences to students' option of extracurricular activities during their study. Mehmetoglu [9] found that students with high neuroticism tend to avoid risk and dangerous activity. They prefer to do less challenging activities consequently their potentials are less optimized.

Soto et al., [10], found that females are having higher neuroticism than males. Those with high neuroticism are vulnerable to maladaptive behavior and even showing behavior disorder. Individuals with high neuroticism are vulnerable toward depression and anxiety [11], are showing aggressive behavior [12], less happy [13], less satisfy with life [6], less resilience [5], drug abusive [14] and low score on subjective well-being [15]. This maladaptive is caused by their inclination to use emotion focus coping strategy to face stressful life, such as: escape, avoidance, anger reaction [16]. This strategy frequently result negative

emotion. High intensity of negative emotion may influence mental health status and further affect academic achievement.

Neuroticism personality may change even though on level-mean only [11]. Soto [13] found that environment in where positive emotions individuals are located may lessen neuroticism personality. Psychologist, lecturers, parents, students, friends and administrative staff can greatly help students with high neuroticism. They can work together to supports the students to have both hard and soft skill accordance to their field of study, particularly the helping studies. Therefore they can be qualified human resources and competitive ones in the work field in the future.

Gender and Neuroticism

Physical growth and androgens hormones are main features of adolescences. One's mood is affected by different hormone functions among males and females. Hormone functions also influence personality and genetic predisposition toward psychopathology. Androgen hormones also explain the interest, activities and aggression inclination among adolescences [17]. Girls are frequently showing hormonal changes than boys. Girls have monthly periods consequently they tend to be more emotionally unstable.

Costa, Terraciano, McCrae [17] and Soto *et al.*, [10] found in their research that neuroticism level different among gender, in which girls show higher neuroticism than boys. This finding is related to the genderone has internalized from people around him. During adolescence, girls suffer more different psychological and social difficulties than boys. Girls are more aware about the negative gender expectations and stereotype gender than boys. Girls also have more negative self-perception and body image than boys. Negative life events may increase neuroticism level more among girls than boys.

As a matter of fact, boys and girls suffer from social roles changes that may last from the late adolescence stage to adulthood. The changes usually described as psychosocial maturity. The changes also resulted from one's adaptation process toward universal social norms (gender roles, religion obligations) which less dependable more or less toward culture or intrinsic maturity that develops through significant persons' raising patterns or education. The social norms based performances may advance personality [18]. Therefore, adolescence social roles may lessen their neuroticism personality [6].

Age and Neuroticism

Personality is built from the nature and nurture interaction [18, 19] which may develop or change according to the age [4, 10]. Some experts agree that genetic factors have bigger roles toward personality so it becomes relatively permanent. But several researchers found that personality may develop and change on level mean only [6]. Therefore social environment which endorse personality development needs to be explored in order to raise personality development, among high neuroticism individuals in particular.

Adlinger, et al., [11] showed in their research that neuroticism may change from the adolescence stage of development though adulthood. The changes confirmed by the lessen neuroticism, and this indicates personality maturation. Social environment that continuously stimulate positive emotions to ones with high neuroticism may also increase their social skills so they are willing to explore the environment. Social exploration supported by their significant people in life, may develop their personality [13]. Hence, frequent negative emotions are decreasing [20] or they have high emotional intelligence, being open to others, having improved social skills and being able to perform adaptive problem solving [5]. They are more at ease in responses to aversive emotional stimulus, to negative feedback and stressful daily life events [21].

One's personality usually goes mature according to the age [10]. The more content he is with his life experiences [6] or the happier he is with his life [13], the more stable his emotion is or the lesser his neuroticism is [19,6]. Therese research result found that emotion stability correlates to age, so does agreeable and conscientious, but little does extravert and openness. Personality pattern is more complex and differentiated. Emotional stability is increasing for the first time during youth to the age of 30 years. After that it goes decreasing until the age of 60 – 70 years and increasing again later [6]. This is due to emotional

regulation strategy used by adults to face stressful life events and this strategy is found effective to reduce negative emotions [10].

According to the above rationalization, the hypotheses of this research were:

1. There is neuroticism difference according to gender. Males are less neuroticism than females.
2. There is negative correlation between age and neuroticism personality level. Younger students show higher level of neuroticism and vice versa.

Research Method

Research Subjects

There were 51 students of Psychology Department of Muhammadiyah Malang University involved in this research. They attended short semester lectures during the 2014/2015 academic year and they participated through random sampling cluster technique. The subjects were 18 males and 33 females aged between 19 – 25 years.

Research Instrument

Neuroticism personality was measured by questionnaire which was arranged based on theory [1]. There were 6 facets of neuroticism personality; anxiety, anger-hostility, depression, self-consciousness, impulsivity, and vulnerability. The questionnaire was assembled based on Likert scale with 5 options of answer, that are 1 (Highly Unsuitable) to 5 (Highly Suitable). The questionnaire had reliability coefficient as big as ($r = .973$)

Data Analysis Method

The research data were analyzed using *Independent t-test* and Product Moment Correlation of Karl Pearson.

Research Results

Using independent t-test analyze method, the result showed as following:

Table 1. Independent t-test of students' neuroticism based on *gender*

| Gender | N | Mean | SD | Df | t-test | P |
|--------|----|---------|---------|----|--------|-------|
| Male | 18 | 111.833 | 15.5459 | 49 | 2.138 | <0.05 |
| Female | 33 | 127.303 | 28.3709 | | | |

Table 1 showed that there was significant difference of neuroticism level between males and females ($t\text{-test} = 2.138$, $df = 49$, $P < 0.05$). Males tended to have lower neuroticism personality level (Mean=111,833) than females (Mean=127.303). Thus the hypothesis that males have less neuroticism level than females was accepted.

Table 2. Product moment correlation between age-college with neuroticism

| Variable | N | rxy | P |
|----------------|----|-------|-------|
| NeuroticismAge | 51 | -.340 | <0.05 |

Table 2 showed there was significant negative correlation between ages and neuroticism personality level ($r_{xy} = -.340$, $P < 0.05$). The younger the students were, the higher their neuroticism personality level was and the older the students were, the lower their neuroticism personality level was. Thus it was confirmed that younger students show higher level of neuroticism and vice versa.

Discussion

This research was meant to find the difference of neuroticism level of personality from gender point of view and to find the relation between age and neuroticism level. There were two hypotheses and the research results were described below.

The first hypothesis proposed that there was neuroticism level difference between genders, was accepted. Males have lower neuroticism personality than females. Table 1 showed there was significantly difference between males and females in their neuroticism personality. Males have lower mean score than females. This implied that males have lower level of anxiety, anger – hostility, depression, self-consciousness, impulsivity and vulnerability. In other words, male students are emotionally more stable than female ones.

This research results were supported by the findings [17, 22] that males have lower level of neuroticism than females. Females are tend to have higher negative affect, more submissive and more nurturance and more concerned with feelings than males. Males are more assertive and having more ideas. Biologically, females are suffering more from hormonal changes in which greatly affect their emotion, than males. Females have monthly period, pregnancy, do breast-feeding and suffer from menopause. Therefore females tend to have higher neuroticism level than males [17].

The second hypothesis proposed that there was negative relation between ages and neuroticism personality, was accepted. Table 2 showed there was significant negative correlation between age and neuroticism personality. The younger the students were, the higher their neuroticism. The older the students were, the lower their level of neuroticism as positive experiences achieved were increasing. They were more competent facing the stressful social environment by using adaptive problem solving. This implies that neuroticism personality among students is decreasing as they are growing older.

This research finding was supported by the research results of Aldinger, et al., [11] that neuroticism personality level is changing during the transition period between adolescence to adulthood although this changes happen only on level mean. There were 20 percentage of research subjects showed lessen negative emotions. This was confirmed by Soto's [13] research result in which neuroticism personality level either increasing or decreasing depends on how ones were treated by significant people in their life. Negative emotions may resulted from continuous negative treatment by significant people in life and this may lead ones to internalize negative affect, to withdraw from his or her social environment, and focus only to his or herself and to be more cautious with their behavior as their mood is negative. How the significant others treat them may either increase or decrease the level of neuroticism personality. Therefore, supportive social environment for individuals with high neuroticism may be able to enhance their personality development.

Closing

Conclusions

This research's goals were to find the difference of neuroticism personality level between males and females and to find the relation between age and neuroticism level. The findings were as following:

- a. Males (students) have lower level of neuroticism personality than females (students)
- b. Younger students have higher level of neuroticism personality than the older ones.

Recommendation

Based on the results above, the proposed recommendations are:

- a. Lectures, psychologist, friends, academic staff are expected to deliver support to students with high neuroticism level.
- b. Carrying out problem solving training to students with high neuroticism level. neurotik tinggi.

References:

- Aldinger, M., Stopsack, M., Ulrich, I., Apple, K., Reinelt, E., Wolff, S., Grabe, H.J., Lang, S., and Barnow, S. (2014). Neuroticism developmental courses – implications for depression, anxiety and everyday emotional experience; a prospective study from adolescence to young adulthood. *BMC Psychiatry*. 14:210. p. 1-13. <http://www.biomedcentral.com/1471-244X/14/210>
- Asthana, H. S. (2011). Relationship of big five personality factors to subjective well-being of adolescents. *Indian Journal of Social Science Researches*. Vol. 8 No.1-2, p. 18-28.
- Bettencourt, B. A. Talley, A., Benjamin, A. J and Valentine, A. J. (2006). Personality and aggressive behavior under provoking and neutral conditions: a meta-analytic review. *Psychological Bulletin*. Vol. 132, No. 5, p. 751-777. Doi: 10.1037/0033-2909.132.5.751
- Bhagat, V. and Nayak, R. D. (2014). Neuroticism and academic performance of medical students. *International Journal of Humanities and Social Science Invention*. Vol. 3, No. 1, p. 51-55. www.ijhssi.org
- Costa, P.T., and McCrae, R.R. (2006). Age change in personality and their origins: comment on Roberts Walton and Viechtbaur (2006). *Psychological Bulletin*. Vol. 132, No:1, p. 26-28. Doi: 10.1037/0033-2909.132.1.26
- Costa, P.T., Terracciano, A. and McCrae, R. R. (2001). Gender differences in personality traits across culture: robust and surprising findings. *Journal of Personality and Social Psychology*. Vol. 81, No. 2, p. 322-331. Doi: 10.1037/0022-3514.81.2.322
- Denissen, J.J.A., dan Penke, L. (2008). Neuroticism predicts reactions to cues of social inclusion. *European Journal of Personality*. Vol. 22, p. 497-517. Doi: 10.1002/per.682
- Fayombo, G. (2010). The Relationship between personality traits and psychological resilience among the Caribbean adolescents. *International Journal of Psychological Studies*. Vol. 2, No. 2, p. 105-116
- Hopwood, C.J, Donnellan, M. B., Blonigen, B. M., Krueger, R. F., McGue, M., Iacono, W.G., and Burt, S.A. (2011). Genetic and environmental influences on personality trait stability and growth during the transition to adulthood: a three wave longitudinal study. *Journal Personality and Social Psychology*. Vol. 100, No. 3, p. 545-556
- McCrae, R.R., and Costa, P.T. (2003). *Personality an adulthood*. Second Edition. A Five- Factor Theory Perspective. New York: The Guilford Press.
- Mehmetoglu, M. (2011). Personality effect on experiential consumption. *Personality and Individual Differences*. Vol. 52, p.94-99.
- Mirnic, Z., Heinsz, O., Bagdy, G., Suranyi, Z., Gonda, X., Benko, A., Molnar, E., Jaksic, N., Lazary, J. and Juhasz, G. (2013). The relationship between the big five personality dimensions and acute psychopathology: mediating and moderating effects of coping strategies. *Psychiatria Danubina*. Vol. 25, No. 4, p. 379-388.
- Roberts, B. W., and Mrozeck, D. (2009). Personality trait change in adulthood. *Curr Dir Psychol Sci*. Vol. 17, No.1, p. 31-35. Doi: 10.1111/j.1467-8721.2008.00543.x
- Saroja Bai. (2011). Study of anxiety proneness and emotional intelligence in relation to academic achievement of pre-university students. *Int Ref Res J*. p. 1-5.
- Schell, K. L. and Cox-Fuenzalida, L. (2005). Neuroticism and quality control in health services: a laboratory simulation. *Current Psychology*. Winter. Vol. 24, No.4, p. 231-241
- Soto, C. J. (2015). Is happiness good for your personality? concurrent and prospective relations of the big five with subjective well-being. *Journal of Personality*. Vol. 83, No. 1, p. 45-55. Doi:10.1111/jopy.12081

- Soto, C. J., John, O. P., Gosling, S.D., and Potter, J. (2011). Age differences in personality traits from 10 to 65: big five domains and facets in a large cross-sectional sample. *Journal of Personality and Social Psychology*. Vol. 100, No. 2, p. 330-348. Doi:10.1037/a0021717
- Specht, J., Egloff, B. and Schemukle, S.C. (2012). Examining mechanisms of personality maturation: the impact of life satisfaction on the development of big five personality traits. *Social and Psychological and Personality Science*. Advance Online Publication. Doi: 10.1177/1948550612448197
- Srivastava, R., Goel, M., Agrawal, A., and Sharma, S. 2014. Personality and achievement – a predictive outlook. *Delhi Psychiatry Journal*. Vol. 17, No. 2, p. 328-336.
- Uliaszek, A.A., Zinbarg, R. E., Mineka, S., Craske, M. G., Sutton, J.M., Griffith, J.W., Rose, R., Waters, A., and Hammen, C. (2010). The role of neuroticism and extraversion in the stress-anxiety and stress-depression relationship. Published in final edited form as: *Anxiety Stress Coping*. Vol. 23, No. 4, p. 363–381. Doi:10.1080/10615800903377264
- Verduyn, P. and Brans, K. (2012). The relationship between extraversion, neuroticism and aspects of trait affect. *Personality and Individual Differences*. Vol. 52, p. 664-669
- Zargar, Y. and Ghaffari, M. (2009). Simple and multiple relationship between big five personality dimension and addiction in university student. *Iranian J Publ Health*. Vol. 38, No. 3, p. 113-117.