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Psychological Application for New Version of Tokyo University Egogram Battery

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Abstract

Transactional Analysis (TA) has been a personality theory beneficial to mutual communication associated with the research of egogram. Tokyo University Egogram (TEG) has been a reliable psychological battery. TEG ver3 was recently introduced, which was applied to 98 university students. The results for 5 egogram factors were compared to previous standard values. Similar data were observed in Critical Parent(CP), Nurturing Parent(NP), and Adult(A). Higher tendency values (vs standard value) were found in male Free Child (FC) 12.3 vs 10.6, male Adapted Child (AC) 13.6 vs 10.0, and female AC 14.8 vs 10.8. Further study for TEG will be expected in the future.

Keywords

Transactional Analysis, Egogram, Tokyo University Egogram, Free Child, Adapted Child

Abbreviations

TA: Transactional Analysis; TEG: Tokyo University Egogram; FC: Free Child; AC: Adapted Child

Introduction

Recently, the lifestyle has been changed drastically along with the development of Information and Communication Technology (ICT) and the change of social structure [1]. Then, everyone has been exposed to various stressors, and many people are suffering from psychological and mental problems. Consequently, the role of behavioral science and psychology has been in focus. Among them, adequate practice and research on communication and personality have become more meaningful [2].

Transactional Analysis (TA) has been a personality theory that was proposed by American psychiatrist Eric Burne in the 1950s [3]. It includes psychoanalysis and psychotherapy, which can change mind and behavior, leading to encouraging growth. He advocated the PAC model including parent, adult, and child. Successively, the concept of egogram was developed by John M. Dusey [4]. He presented useful practice and research methods using 5 human egos.

They include the followings:

- CP (Critical Parent): criticizing and regulating characteristics
- NP (Nurturing Parent): permitting and encouraging characteristics
- A (Adult): focusing on gathering facts and

considering alternatives and being objective

- FC (Free Child): self-orientation and optimistic characteristics
- AC (Adapted Child): restraining one's emotions and with social characteristics.

The research for egogram has been developed mainly using Tokyo University Egogram (TEG) for a long. TEG has been evaluated to be a useful and reliable psychological battery on transactional analysis because it takes only 5-10 minutes to conduct in an actual situation [5]. It was applied to various subjects and patients with psychosomatic diseases so far [6]. Authors and collaborators have continued egogram research for years [7]. We have used the 2nd edition of TEG and examined subjects included patients with various diseases and university students [8,9]. Among them, various perspectives from psychological points of view were discussed for useful advice in the future.

The 2nd edition of TEG is highly reliable and has been applied and used for many years. In recent years, a new revision has been made and the third edition has been introduced for clinical and educational fields [10]. Consequently, our research group has conducted TEG version 3 for university students and analyzed the characteristic points of them. In this article, the results with some perspectives are described.

Protocol and Results

In the current research, subjects were university students who were in the first year of Tokushima University, which is one of the national universities in Japan [11]. Tokushima University has been famous for light-emitting diode (LED) light, effective treatment for COVID-19 by deep ultraviolet LED (DUV-LED) light and Gc protein-derived macrophage-activating factor (GcMAF) [12]. The subjects entered the Faculty of science and technology department, and the subjects included in this study were male 90 and female 8. The methods included TEG lecture and test for the students and analyses. We used newly-introduced TEG version 3, and the lecture and test for TEG was held in July, which was three months after entering the university in April. The analyses were conducted by the authors' research group using excel software.

As to the results of our survey, the data of five ego factors for men and women are shown in **Table-1**. The average values of 5 factors are reported as standard data of TEG ver.3. Therefore, when compared with the results of this time, it seems that there have been no significant difference in NP and A. On the other hand, males tended to have high FC and AC and females tended to have high AC. Concerning the comparison of current data and standard data from Tokyo University, the significant difference could not be calculated, because all results of 2000< cases were not obtained.

For ethical considerations, the protocol was conducted in compliance with the Declaration of Helsinki as well as the Ethical Guidelines for Research for the human and the conduction of the Good Clinical

Table-1: The points of 5 egogram factors

	Male*	Male**	Female*	Female**
CP	9.47±4.13	11.12±4.41	12.00±3.78	11.02±4.01
NP	10.00±4.21	9.67±4.90	12.00±6.28	10.87±4.76
A	14.43±3.60	14.32±4.26	14.38±2.92	13.31±4.33
FC	12.29±4.04	10.55±4.48	10.88±2.95	10.97±4.83
AC	13.61±4.27	10.00±5.27	14.75±5.44	10.75±5.35

** The data obtained from current study for male (n=90) and female (n=8)*

***The standard data in TEG for male (n=1033) and female (n=1034)*

Practice (GCP), and Ethical Guidelines for Epidemiology Research which are from Japan by the Ministry of Health, Labor and Welfare and the Ministry of Education, Culture, Sports, Science, and Technology. Regarding this study, the authors took the written informed consents from all subjects, and the protocol was recognized and permitted by the ethical committee of the university including several professionals and experts in the legal, educational, and medical specialties. The members discussed the research content enough and agreed that this study would be adequate without any problems.

Discussion

TEG is estimated to be highly reliable in psychological tests [5]. We can conduct the questionnaire, evaluate the result, and easily grasp the five ego states in short times [13]. Regarding the current investigation, it was performed satisfactorily in order to find out the egogram trends for university students. **Table-1** shows the detailed data of five egos for men and women from the current survey. The average value of 5 factors is reported as standard data of TEG ver.3. Therefore, when compared with the results, it seems that there is no remarkable difference in CP, NP, and A. On the other hand, males tended to show higher FC and AC, and females tended to have higher AC. These characteristics were partly similar to our previous reports [14].

Regarding the higher tendency of FC for male students, there is a perspective. FC indicates free child personality. When comparing men and female students during teenagers, females are relatively psychologically and mentally growing earlier in this period [14]. Then, male university students in 1st grade may show rather a childish personality, in which they seem to show immature feelings, behavior, and activity [15]. Tokushima is situated not in the metropolitan area but is rather a countryside in the Shikoku Island district. This may also influence the obtained results.

Higher AC tendency for men and female students are important results [13]. AC means adapted child, and higher AC values in the younger generation seem to be in focus in Japanese society [16]. Formerly, many high school students could talk and lead their lives as they like. In recent years, however, they pay attention to a careful situation not showing their apparent feeling to others. The reason would be to refrain from evaluating heterogeneous personal character by the friends around. Consequently, they always tend to guess various feelings of others [14]. Such a situation may bring the current results of higher AC levels in male and female students.

As mentioned above, some perspectives about current results for TEG were described [17]. There are some limitations to this study. The case numbers of the subjects are less, especially female students. Regarding the comparisons with our results and standard values, detail age-related standard ranges were not obtained in TEG ver.3 [10]. Then, the apparent tendency cannot be described. These cases will be followed up every year and can be checked 4 years later when they will enter the graduate school of the university.

University students will live in our society with a variety of stresses. Then, in order to maintain their health physically and mentally, it is required to take appropriate measures for the body and the mind. For decades, bio-psycho-social issues, self-efficacy, and self-affirmation have been discussed for regions such as psychosomatic medicine psychology, education, psychiatry, and others [18]. These problems are important for how to manage each personality indicating from the egogram of each individual [19,20].

In summary, a current study using TEG new version 3 for university students was reported [10]. The obtained data were not enough for describing certain tendencies, then following up the subjects for years will be required. Further development of TEG research will be expected.

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Conflict of Interest

The authors have read and approved the final version of the manuscript. The authors have no conflicts of interest to declare.

References

[1] Fonseca A, Osma J. Using Information and Communication Technologies (ICT) for Mental Health Prevention and Treatment. Int J Environ Res Public Health. 2021 Jan 8;18(2):461. [**PMID**: 33430057]

[2] Holmes KS, Zuckerman JD, Maculatis MC, Friedman AM, Lawrence E, Phillips DP. Personality Predictors of Communication Skills Among Orthopedic Surgery Residents. J Surg Educ. 2020 Jan-Feb;77(1):202-12. [**PMID**: 31495746]

[3] Berne E. Transactional Analysis in Psychotherapy: A Systematic Individual and Social Psychiatry. 6th Ed. USA: Ballantine Books; 1978 Jan 12. PP. 298.

[4] Dusay J. Egograms: How I see you and you see me. 1st Ed. New York, USA: Harper & Row; 1977.

[5] Kuboki T, Nomura S, Wada M, Akabayashi A, Nagataki M, Suematsu H, Yokoyama K, Araki S. Multidimensional assessment of mental state in occupational health care--combined application of three questionnaires: Tokyo University Egogram (TEG), Time Structuring Scale (TSS), and Profile of Mood States (POMS). Environ Res. 1993 May;61(2):285-98. [**PMID**: 8495670]

[6] Saito H, Kimura Y, Tashima S, Takao N, Nakagawa A, Baba T, Sato S. Psychological factors that promote behavior modification by obese patients. Biopsychosoc Med. 2009 Sep 25;3:9. [**PMID**: 19781055]

[7] Bando H. Transactional Analysis Would Be Useful for Various Situations in Psychotherapy. Psychol Psychother Res Stud. 2018;1(1):PPRS.000504.

[8] Yoshioka A, Bando H, Yoshioka T. Effect of musical experience on optimization of egogram. Jap J Music Ther. 2004;4(2):191-97.

[9] Yokoyama T, Bando H. Study of Personality Traits for University Students by Egogram Analysis. Biomed J Sci &Tech Res. 2018;9(3).

[10] Tokyo University Egogram. TEG research group of Tokyo University. Tokyo, Japan: Kaneko Publishing Company; 2020.

[11] Tokushima University. https://www.tokushima-u.ac.jp/english/

[12] Bando H. Some Measures for COVID-19 Including Deep Ultraviolet Light-Emitting Diode (DUV-LED), Gc protein-derived Macrophage-Activating Factor (Gcmaf), and 5-Aminolevulinic Acid (5-ALA). Asp Biomed Clin Case Rep. 2021 Jun 30;4(2):110-13.

[13] Berne E. Transactional Analysis in Psychotherapy: A Systematic Individual and Social Psychiatry. USA: Martino Fine Books; 2015 Jul 19. Pp 272.

[14] Yokoyama T, Bando H. The Egogram Feature of Late Teenager in the Internet Generation. Clin Res Psychol. 2018;1(2):1-4.

[15] Yanagihara K, Kinugasa Y, Kunimi T, Kaneko S, Haruki N, Nakamura K, Kamitani H, Hirai M, Kato M, Yamamoto K. Child ego state and self-care behavior change in heart failure patients. J Cardiol. 2021 Oct;78(4):294-300. [**PMID**: 34090754]

[16] Kuo Z, Dengfeng W. The Efficacy of a Transactional Analysis Training Program for Married University Students' Spiritual Intelligence: A Randomized Controlled Study. NeuroQuantology. 2018;16(6):105-11.

[17] Vos J, Rijn BV. A Systematic Review of Psychometric Transactional Analysis Instruments. Transactional Analysis Journal. 2021;51(2):127-59.

[18] Saitou T, Sugahara T, Kato C. A study on the self-affirmation of university student - Focusing on classification by personality. In 2018 7th International Congress on Advanced Applied Informatics (IIAI-AAI) 2018 Jul 8 (pp. 506-511). IEEE.

[19] Karumur RP, Nguyen TT, Konstan JA. Personality, user preferences and behavior in recommender systems. Information Systems Frontiers. 2018 Dec;20(6):1241-65.

[20] Yoshiwara K, Tsuchiya H. Correlations among focusing attitudes, psychological competitive abilities and public self-consciousness in college athletes. Person-Centered & Experiential Psychotherapies. 2019 Jan 2;18(1):85-97.