

The Perceived Stress Scale Correlates with Face Stimulus Assessment to Detect Stress

Siti Nadiah Sutiman, Amer Shakir Zainol

Department of Visual Culture, Faculty of Art & Design, Universiti Teknologi MARA,
40450 Shah Alam, Selangor, Malaysia

amer_shakir@yahoo.com

Abstract — Stress influences the quality of life and it correlates strongly with the increasing number of mental disorder cases. Pressure related to work, environment, and relationships between friends and family members are among the issues that are often considered to be the reason of stress. This problem if left unattended, can lead to physical or mental health complications. Various stress scales were done by researchers and have been used widely to measure stress level among different communities around the world. By investigating the correlation between the Perceived Stress Scale (PSS) with Face Stimulus Assessment (FSA), the researcher's significant concern engaged in this research, is to determine which FSA is used as an art therapy medium. As a formal rating guide, the 9 scales from the Formal Elements Art Therapy Scale (FEATS) is used as the research instrument of this study is. A pre-test was carried out on 21 participants, aged between 19 years old to 30 years old that are categorized in three groups which are students, employed adults and unemployed adults. The data is obtained from a survey on PSS and FSA, completed by the participants. The findings indicate that there are correlations between both scores. Therefore, PSS and FSA rated with FEATS is a compatible tool to measure stress. However, further research needed to be done as FSA is still a work in progress to be established as a valid and well-grounded assessment. This research will be beneficial and relevant to future researches based on psychological contents analysis.

Keywords - Scale; Stress; Anxiety; Depression; FSA; PSS; FEATS

1. Introduction

Depression, anxiety and various mental health problems among the younger generation are caused by the demands of living in the era of modernization. For young adults, the struggle to deal with studies, career, new financial responsibility, family expectation and relationships are among the issues of concern (Badarudin, 2018). Stress can be characterized as a state of tension that happens when there are too many demands arise in a particular environment. Besides that, a situation that is anticipated as threatening, unpleasant, or unfamiliar experience can also result in stress. Stressor such as difficulties in relationship, overloaded with assignments or work, having financial problems and even the hardship of moving to another city are some examples of such demands that can trigger stress (Nejad & Volny, 2008). Mental issues occur when you are bound with high pressure and stress which leads to anxiety. One out of three adults in Malaysia is facing mental health issues whether they are aware of it or not. National Health Morbidity Survey (NHMS) released by the Health Ministry revealed that the number of mental health patients has increased massively since the last decade. Financial difficulties, high expectations and pressure faced from surrounding environment are mainly the root of the problem. Moreover, it is learnt that most of the young adults suffering from mental issues, are mainly due to poor parenting and environmental factors. Based on a survey carried out last year, Datuk Dr Lokman Hakim Sulaiman, Deputy Director-General of Health (Public Health) shared that 4.2 million from 14.4 million Malaysians aged 16 and above suffered from mental issues. He added, Malaysians should be aware for signs and symptoms for example prolonged sadness, always feeling irritated, lack of concentration, the feeling of excessive fear, anxiety and worry (Arumugam, 2016). The main causes of mental health problems among them, as cited by experts, are anxiety and depression, although they did not excluded the influence of drugs as a factor as well. Stress can also result from internal causes, which includes physical tiredness, mental exhaustion, lack of fitness, changes in hormones for example menstruation or menopause, disrupted biorhythms and negative self-image and self-thoughts (Brewer, 2010). The student, worker and even executive of today have to face immense stress than their counterparts of yesterday (Romas & Sharma, 2007). Art therapy has always been an approach of reducing stress problems. As the profession of art therapy has settled itself, definition has become more fixed.

Art therapy may be acknowledged as a form of therapy in which creating images and objects carries an important role in the psychotherapeutic relationship established between the therapist and client from a contemporary perspective (Edwards, 2014). Art therapy expedited by a professional art therapist, supports personal and related treatment goals effectively as well as community involvement. Cognitive and sensory-motor functions, self-esteem and self-awareness, emotional aspects can be improved with the approach of art therapy. Art therapy also promotes insight, enhancing social skills as well as reducing conflicts and pressure, and advance societal and ecological change (American Art Therapy Association, 2017). Drawing is one of the methods in art therapy. Drawing gives a common ground for communication which offers human being a dialogue with us and with others, the viewers. Vital emotional, intellectual and spiritual levels can be engaged by drawing. (Sale & Betti, 2004)

1.1. Method

Participants in this research study were 21 participants between the ages of 19 and 30 years old. This research involved three groups of volunteer, a group of 10 students, a group of 10 employed adults and a group of 10 unemployed adults age between 19 to 30 years old. The participants consists of 6 men and 15 women. All participants lived in the area of Selangor. The researcher chosed respondents who lived in Selangor because of the socio-economic condition present to the study. It also fits the time period and resources of the researcher. The sampler respondents is divided into three categories of young adults with different occupation backgrounds which are students, unemployed and employed young adults. They will be picked randomly and their consent and approval to answer the questionnaire are asked to follow the discipline of the research. For the start, participants will go through the Face Stimulus Assessment (Betts, 2003) drawing test. This tool consist a series of three stimulus images which Picture 1 contains a standardized image of a human face, Picture 2 consist an outline of the face only and Picture 3 is a blank page. The materials used for drawings are sets of standard packet of 12 Kreati crayons and 12 Faber-Castell wax crayons. The data from FSA will be quantified using the Modified Formal Elements Art Therapy Scale (Hamilton, 2008). The score of each participant was recorded on the Modified FEATS Rating Sheet. FEATS Rating Sheet is scored by the researchers, as studied by Gantt (1990, 1998, 2012), Hamilton (2008) and Betts (2003). Once the FSA is completed, participants are asked to answer a questionnaire to scale their stress level. Questionnaire that will be used in this study is the 10-item Perceived Stress Scale (Cohen, 1983) which is designed to measure an individual assessment of how stressful situations are occurring in their life. People's feelings and thoughts during the last month are asked and required them to give scores on a 5-point Likert scale, ranging from 0 (never) to 4 (very often). The total scores are collected by reversing the scores on the four positively worded items which are questions 4, 5, 7 and 8. Then, the scores are added up from each item to get a total. An individual scores can range from 0 to 40 with higher scores signify higher perceived stress. The assessment can be conducted individually or in group setting. The researcher chooses to conduct it individually to sustain the originality of the results and each of them is not influenced by other respondent. All required materials for the FSA drawings are passed out to each participant by the researcher. The drawing materials included a standard packet of 12 Kreati crayons and 12 Faber-Castell wax crayons. The crayons are randomly mixed together and placed on the table. Time given is 50 minutes. Each participant started off with the FSA Picture 1 and instructed to use the crayons and the piece of paper given as indicated in the FSA administration instructions. After the participant has completed Picture 1, the paper is removed from his or her view and replaced with Picture 2 to be completed. Following the completion of Picture 2, it is then removed and replaced with Picture 3 which was the blank piece of paper in vertical format. Lastly, each participant was given a questionnaire which is The Perceived Stress Scale, once they had finished the assessment. At the end of session, all the remaining materials and the questionnaires were collected. Additionally, only Picture 2 drawings were rated using the modified FEATS scale by the researcher.



Figure 1. The Face Stimulus Assessment (Betts, 2003)

1.2. Result and Discussion

This research is a comparison between the outcome of Perceived Stress Scale (PSS) and the Face Stimulus Assessment (FSA), and how it correlates with the Modified Formal Element Art Therapy Scale (FEATS). The researcher used these tools to validate the stress level of each participant. Participants are among young adults age 19 to 30 years old and are divided into three categories which are students, employed adults and unemployed adults. There were 21 participant in total, across the students (33.33%, n=7), employed adults (33.33, n=7) and unemployed adults (33.33%, n=7). Figure 1, figure 2 and figure 3 are some of the drawing examples by the participants. Only the Picture 2 drawings from all participants were rated using the Modified Formal Elements Art Therapy Scale (FEATS) rating sheets by the researcher to emphasize the results.



Figure 2. FSA series drawing for high perceived stress

Figure 2 shows the FSA series drawings completed by a 25 years old Malay unemployed woman. Her Picture 2 drawing showed a lot of energy and colors used; one bizarre item but logical; drawing seems to be drawn by adolescent; has addition to facial features; lines are continuous and there is a considerable amount of preservation. She scored 28 which indicate a high perceived stress for the PSS assessment and high stress level in FEATS score.

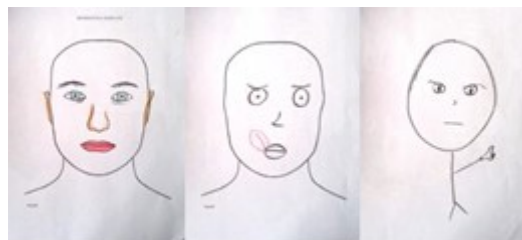


Figure 3. FSA series drawing for low perceived stress

Figure 3 shows the FSA series drawings completed by a male student age 19. His Picture 2 shows how it was done with the least amount of energy; 3 bizarre item that do not fit the task; the items are simply drawn for example using triangle for nose; there are a few number of elements in this drawing. He scored 13 point which indicates low perceived stress for the PSS assessment and low stress level in FEATS score.



Figure 4. FSA series drawing for high perceived stress

Figure 4 shows the FSA series drawings completed by a 23 years old female legal officer. Her Picture 2 drawing shows that she used colors for both outlining as well as filling the forms and objects; most of the colors were used appropriately; her drawing appeared to be completed in excessive amount of energy; addition of facial features and accessories. She scored 27 points which indicates a high perceived stress for the PSS assessment and high stress level in FEATS score.

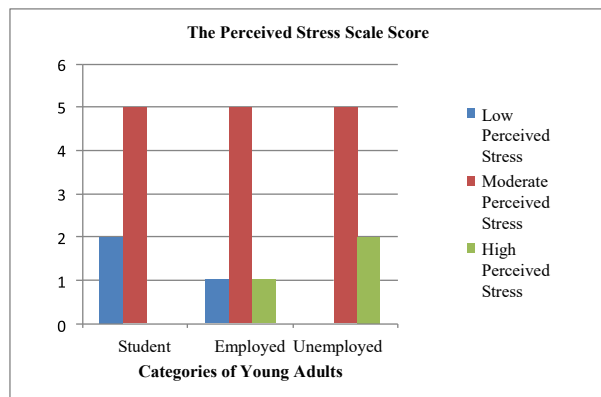


Figure 5. Total of participants relates to the Perceived Stress Scale scores

From figure 5, the results shows that there are 2 students and 1 employed adult who scored a low perceived stress which the lowest point was 11 for the PSS assessment. There were 15 participants who scored moderate perceived stress that includes 5 students, 5 employed adults and 5 unemployed adults who scored between 16 to 30 points for the PSS assessment. Only 1 employed adult and 2 unemployed adults are facing high perceived stress which the highest point is 30. From the findings, it indicates that most of the participants' scores for the PSS and FEATS correlated but there are a few which doesn't correlates. The correlation of PSS and FEATS happens when the participants have high perceived stress with higher FEATS scores or participants with moderate perceived stress score with moderate FEATS scores and participants with low perceived stress with lower FEATS scores. Unfortunately, there are also participants who have the opposite correlation between their scores for PSS and FEATS.

2. Conclusion

From the results of the assessment conducted in this research on detecting stress using the Perceived Stress Scale (PSS), Face Stimulus Assessment (FSA), and the Modified Formal Elements Art Therapy Scale (FEATS), the PSS indicated 14.29% - 3 participants scores 11 – 15, which represents low perceived stress. 71.43% - 15 participants scores 14 – 26, which presents moderate perceived stress and 14.29% - 3 participants scores 27 – 30 which represent high perceived stress. The highest score in FSA/FEATS is 38, while the PSS score is 27 (figure 2). The lowest score in FSA/FEATS is 18, while the PSS score is 13 (figure 3). From the findings, it shows that there are correlation between both scores, and there are also no correlation for some of the participants. Therefore it simply mean that in relation to PSS (Cohen, 1983) and the FSA/FEATS (Hamilton, 2008) can be said as a compatible tools to measure stress with a similar results as an outcome but further reseach needed to be done because few of the result do not correlates to one another.

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