

An Analysis on Different Variables of Psychological Symptoms in Accordance with University Students' Fields of Intelligence and Art Branch

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Abstract: The purpose of this study is to analyze psychological symptoms of university students in accordance with their abilities and the branch of art they are interested.. Psychological symptom scores of participating university students were obtained through Short Symptoms Inventory (SSI) consisting of 53 items which was developed by Derogatis [18] and adapted into Turkish by Şahin and Durak (1994). university students. The sample of the study consists of 997 university students studying in Atatürk University, Erzurum Turkey in 2006-2007 educational year chosen randomly and unproportionally. t-test and one way disablediance (ANOVA) for independent group were applied for statistical analysis of the data. There was found no significant difference between psychological symptom scores of students regarding fields of intelligence and the art branch they perform in general, whereas, there was found a significant difference between hostility and paranoid thought scores of them in favour of art-performing ones.

Key words: University students • Performance of art • Activity of art • Psychological symptoms
• Art branches

INTRODUCTION

Art is branch of science which makes studies of virtue within the flow of history illuminates work of arts' relation with each other and with other work of arts within different cultural context, illuminates studies and lives of artists and states and classifies contents and styles from objective and academic acception viewpoint [1]. Today, art is being performed under some principles such as; design, balance, gradation, contradiction, ritm-repetation, respective and combination [2-4]. Furthermore art is often being classified as plastics, ritmic, phonetics and art nouveau [5]. Beside having many subjective conception alongside objective conception, a direct close tie with sincerity which is "the smell and color of the life" attracts attention.. With its subjective conception art is the sum total of endeavors requiring an internal clearness and positive purification. Evaluation mechanisms must be pure and plain enough to apprehend the art in order to decide which work or effort is art. The relation between art and human psychology is triangular. There fundamental elements of this structure are; artist, work and the follower. Psychological reflections of art can be seen on

these three components [6]. Artists' mental state first pass on the work than on the follower. Tolstoy [7] perceived art a monument of sacrifice [7]. Generally speaking, it is observed that art is an indispensable part of nature, modesty and human being [8-11]. According to Ersoy [12], art is an aesthetical relation between human being and objective reality of nature [12]. It is this aesthetic feeling that defines a basic inclination which is inherent to human being. He is continuously concerned about aesthetic and organization in his objective world as in psychological context as well. Art's organizer effect on human psychology takes place within communicative dialects. An individual witnesses organizer, therapeutical and stabilizer functions of art as a performer or a follower from time to time [10,13]. It has been observed since primitive societies age up to now that art has also certain individual functions and benefits beside its social benefits. The most important individual benefits gained from art are; staring at his creative work, sharing his thoughts and feelings with others, listening to other people's expressing their ideas and feelings, cooperating with other people thus relieved of the idea of being alone, getting rid of monotony of daily life and passing beyond

stereotypes and things for once, belief of establishing a better and happier future including practices of life and, last but not the least satisfying his aspirations and thus having and affluent life. It is also expected that individual and social benefits gained from art should protect the individual from negative psychological characteristics and should have a therapeutic effect on them [11]. In the content of above mentioned facts, one of the individual characteristics which art is expected to have positive effect on is psychological symptoms. Psychological symptoms are connected to the physiological and behavioral symptoms caused by anxiety [14]. Psychological symptoms discussed within the scope of this study can be collected under following titles:

Somatization: It is a state of compulsion pertaining some physical functions. Somatization, consists of recurrent many somatic complaints that continue years long and is proven not to get caused by any specific physical disturbances. Some of its symptoms are fainting, loss of memory, chest pain, agoraphobia, poor appetite, abdominal pains, nausea, difficulty in breathing, feeling uncomfortably warm or cold, body's going numb and tingling.

Obsessive-Compulsive Disorder: symptoms of this disorder are involuntary, disturbing, unfamiliar to self, repeated thought that cannot get out of mind with conscious endeavors (obsession) to neutralize obsessive thoughts (compulsion).

Interpersonal Sensitivity: It consists of some symptoms such as over sensitiveness, believing other people's producing bad ideas about him, inferiority and being afraid of making mistakes.

Depression: It consists of some behaviors and symptoms such as grief, pessimism, misery, annoyance, reluctance, desperation, loneliness, negative feelings pertaining self, suicidality, lack of concern instability. There are fatigue, lassitude, tiredness, as well as physical, biological and psychological complaints in case of depression.

Anxiety Disorder: It is a disturbing feeling emerges when a strong desire or motive is likely not to be achieved. It consist of fear, anxiousness, strain, nervousness, shaking, getting into panic, urination disorders, feeling of as asphyxiation, sweating, breathing excessively.

Hostility: It consists of some symptoms like nervousness and wobbliness, blaming others for current predicaments, getting angry, short temper, distrust, beating someone, physical injury, temp of giving damage and compulsion for vandalism.

Phobic Anxiety: It is a state of fear connected to an object. It consists of some symptoms and behaviors such as agoraphobia, staying away of the object which is scared off, getting annoyed by crowd and nervousness when left alone.

Paranoid Thoughts: An individual's being inclined to exploit thoughts such as distrust, skepticism, jealousy and blaming on others excessively.

Psychoticism: It is a state of the mind where getting away of social environment and schizoid life style prevails with distinct schizophrenic delusions. It consists of some symptoms such as thinking other people's controlling his thoughts, feeling alone in crowd and thinking of getting punished for a sin committed [15-20].

Purpose of the study: The purpose of this study is to analyze psychological symptoms of university students in accordance with their abilities and the branch of art they are interested.

MATERIALS AND METHODS

Research Model: This is a descriptive study in review model aimed to analyze psychological symptoms in accordance with the fields of intelligence and art activities of university students from the aspects of different variables.

Population and Sampling: Population of the study comprises nearly 20000 university students studying in Atatürk University, Erzurum Turkey in 2006-2007 educational year. The sample of the study consists of 997 university students chosen randomly and unproportionally out of the population.

Data Collection: Psychological symptom scores of participating university students were obtained through Short Symptoms Inventory (SSI) which was developed by Derogatis [18] and adapted into Turkish by Akin and Durak [21]. Inventory consists of 53 items with a score range of 0-212. The higher the scores got from the scale,

the more frequent the symptoms are. It also consists of ten sub-scales with additional items (somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety disorder, hostility, phobic-anxiety, paranoid thoughts, psychoticism and additional items) and three global indexes (annoyance serenity index, total symptom index, symptomatic complaint index). Considering reliability of the inventory, cronbach-alpha internal consistency coefficient is found 0.71 and 0.85 outside of Turkey and between 0.55 and 0.85 in Turkey whereas test-retest reliability is found between 0.68 and 0.01 outside Turkey. Considering validity, criterion validity is found as $r=0.30$ with Minnesota Multidimensional Personality Inventory (MMPI) outside Turkey. In Turkey, on the other hand, it is found between $r=0.34$ and 0.70 with Beck's Depression Scale. From the aspect of structural validity it was found that it could make distinction between smokers and nonsmokers, between people with heart disease and people without between schizophrenics with sincerity or not and between the people pron-stress or not in Turkey [22].

Data Analysis: SPSS 16.0 packaged software was used for statistical analysis of data. t-test and one way variance (ANOVA) for independent group were applied.

Finding and Interpretations

Findings and Interpretations Regarding Psychological Symptom Scores of University Students in Accordance with Their Fields of Intelligence: Standard deviation and mean values of psychological symptom scores of participating university students' fields of intelligence are given in Table 1 below.

The results of one way disablediance analysis (ANOVA) applied in order to determine significance of the difference between psychological symptom scores of students regarding the fields of intelligence are shown in Table 2 below:

As is seen Table 2 there was found no significant difference between psychological symptom scores of students in accordance with their field of intelligence. ($F=1.657$, $p=.158$; $F=0.079$, $p=.989$; $F=0.784$, $p=.535$; $F=1.696$, $p=.149$; $F=1.377$, $p=.240$; $F=0.957$, $p=.430$; $F=2.029$, $p=.088$; $F=1.799$, $p=.127$; $F=1.504$, $p=.199$). This finding demonstrates intelligent fields playing almost no role in psychological symptom change. This case can be explained psychological symptoms' developing under destructive effects of challenging life conditions in after life rather than inborn skills.

Table 1: Standard Deviation And Mean Values of Psychological Symptom Scores of University Students' Fields Of Intelligence

Psychological Symptom	Intelligence Field	n	\bar{x}	sd
Somatization	Numerical	489	5.50	4.81
	Verbal	205	6.06	5.24
	Equal Weight	148	6.18	5.68
	Linguisitcs	90	5.03	4.08
	Special	65	4.86	3.94
	Total	997	5.63	4.94
Obsessive-Compulsive Disorder	Numerical	489	8.15	4.71
	Verbal	205	8.20	4.33
	Equal Weight	148	8.39	4.16
	Linguisitcs	90	8.17	4.54
	Special	65	8.20	4.30
	Total	997	8.20	4.51
Interpersonal Sensitivity	Numerical	489	4.62	3.25
	Verbal	205	4.63	3.33
	Equal Weight	148	5.14	3.51
	Linguisitcs	90	4.84	3.10
	Special	65	4.80	3.40
	Total	997	4.73	3.30
Depression	Numerical	489	6.54	4.76
	Verbal	205	6.63	4.63
	Equal Weight	148	7.59	5.75
	Linguisitcs	90	6.13	4.34
	Special	65	6.81	5.01
	Total	997	6.69	4.88
Anxiety Disorder	Numerical	489	5.89	4.17
	Verbal	205	5.99	4.42
	Equal Weight	148	6.76	4.58
	Linguisitcs	90	6.36	4.43
	Special	65	5.75	3.78
	Total	997	6.07	4.29
Hostility	Numerical	489	6.21	4.19
	Verbal	205	5.73	4.23
	Equal Weight	148	6.53	4.27
	Linguisitcs	90	5.86	4.26
	Special	65	5.90	4.40
	Total	997	6.11	4.23
Phobic Anxiety	Numerical	489	3.71	3.09
	Verbal	205	3.48	3.20
	Equal Weight	148	4.41	3.56
	Linguisitcs	90	3.60	3.13
	Special	65	3.73	3.22
	Total	997	3.76	3.20
Paranoid Thoughts	Numerical	489	6.20	3.73
	Verbal	205	6.19	3.46
	Equal Weight	148	6.87	3.70
	Linguisitcs	90	6.30	4.07
	Special	65	7.16	3.67
	Total	997	6.37	3.71
Psychoticism	Numerical	489	5.34	3.84
	Verbal	205	5.07	3.34
	Equal Weight	148	5.47	3.73
	Linguisitcs	90	4.44	3.33
	Special	65	5.47	3.17
	Total	997	5.23	3.64

Table 2: One Way Disabledance Analysis (ANOVA) Applied In Order To Determine Significance of The Difference Between Psychological Symptom Scores of Students Regarding The Fields of Intelligence

Psychological Symptom	Source of the Variance	Sum of Squares	sd	Mean of Squares	F	p
Somatization	Inter-groups	161.433	4	40.358	1.657	0.158
	In-groups	24155.129	992	24.350		
	Total	24316.562	996			
Obsessive -Compulsive Disorder	Inter-groups	6.439	4	1.610	0.079	0.989
	In-groups	20260.409	992	20.424		
	Total	20266.849	996			
Interpersonal Sensitivity	Inter-groups	34.375	4	8.594	0.784	0.535
	In-groups	10866.775	992	10.954		
	Total	10901.149	996			
Depression	Inter-groups	161.315	4	40.329	1.696	0.149
	In-groups	23586.812	992	23.777		
	Total	23748.126	996			
Anxiety Disorder	Inter-groups	101.345	4	25.336	1.377	0.240
	In-groups	18248.553	992	18.396		
	Total	18349.898	996			
Hostility	Inter-groups	68.717	4	17.179	0.957	0.430
	In-groups	17799.475	992	17.943		
	Total	17868.193	996			
Phobic Anxiety	Inter-groups	83.182	4	20.796	2.029	0.088
	In-groups	10166.426	992	10.248		
	Total	10249.609	996			
Paranoid Thoughts	Inter-groups	98.855	4	24.714	1.799	0.127
	In-groups	13630.344	992	13.740		
	Total	13729.200	996			
Psychoticism	Inter-groups	79.902	4	19.976	1.504	0.199
	In-groups	13179.283	992	13.286		
	Total	13259.186	996			

Table 3: t Value, Standard Deviation And Mean Values of Psychological Symptom Scores of University Students Pertaining Their Interest In Performance of Art

Psychological Symptom	Art Performance Interest	N	\bar{x}	sd	t	p
Somatization	Art-performing	298	5.91	4.92	1.165	0.244
	Disinterested	699	5.51	4.94		
Obsessive -Compulsive Disorder	Art-performing	298	8.49	4.53	1.331	0.184
	Disinterested	699	8.08	4.49		
Interpersonal Sensitivity	Art-performing	298	4.65	3.37	-0.495	0.621
	Disinterested	699	4.77	3.28		
Depression	Art-performing	298	6.86	4.99	0.722	0.470
	Disinterested	699	6.62	4.83		
Anxiety Disorder	Art-performing	298	6.19	4.27	0.559	0.576
	Disinterested	699	6.02	4.30		
Hostility	Art-performing	298	6.60	4.40	2.378	0.018
	Disinterested	699	5.90	4.14		
Phobic Anxiety	Art-performing	298	3.78	3.30	0.156	0.876
	Disinterested	699	3.75	3.16		
Paranoid Thoughts	Art-performing	298	6.77	3.60	2.218	0.027
	Disinterested	699	6.20	3.74		
Psychoticism	Art-performing	298	5.32	3.58	0.490	0.624
	Disinterested	699	5.20	3.67		

Table 4: Standard Deviation And Mean Values Of Psychological Symptom Scores Of University Students Pertaining The Art Branch They Perform

Psychological Symptoms	Branches of Art	n	\bar{x}	sd
Somatization	Plastic Art	81	5.82	5.06
	Ritmic Art	20	6.70	4.66
	Phonetic Art	112	5.87	5.25
	Mixed Art	17	6.52	4.91
	More Than One Art Branch	69	5.65	4.34
	Total	299	5.90	4.92
Obsessive -Compulsive Disorder	Plastic Art	81	8.59	4.57
	Ritmic Art	20	10.60	5.24
	Phonetic Art	112	8.48	4.71
	Mixed Art	17	8.64	4.07
	More Than One Art Branch	69	7.78	3.93
	Total	299	8.50	4.52
Interpersonal Sensitivity	Plastic Art	81	5.45	3.49
	Ritmic Art	20	5.30	3.37
	Phonetic Art	112	4.21	3.29
	Mixed Art	17	4.47	3.44
	More Than One Art Branch	69	4.31	3.23
	Total	299	4.66	3.37
Depression	Plastic Art	81	7.33	4.98
	Ritmic Art	20	6.55	4.54
	Phonetic Art	112	7.00	5.48
	Mixed Art	17	5.94	3.05
	More Than One Art Branch	69	6.43	4.69
	Total	299	6.86	4.98
Anxiety Disorder	Plastic Art	81	6.34	4.58
	Ritmic Art	20	7.00	4.20
	Phonetic Art	112	6.22	4.36
	Mixed Art	17	6.58	3.74
	More Than One Art Branch	69	5.60	3.90
	Total	299	6.18	4.27
Hostility	Plastic Art	81	6.27	4.54
	Ritmic Art	20	7.20	3.99
	Phonetic Art	112	6.76	4.32
	Mixed Art	17	8.05	4.82
	More Than One Art Branch	69	6.21	4.38
	Total	299	6.60	4.40
Phobic Anxiety	Plastic Art	81	3.71	3.26
	Ritmic Art	20	5.00	4.20
	Phonetic Art	112	3.66	3.25
	Mixed Art	17	5.05	3.78
	More Than One Art Branch	69	3.47	2.98
	Total	299	3.80	3.31
Paranoid Thoughts	Plastic Art	81	6.76	3.59
	Ritmic Art	20	7.00	3.81
	Phonetic Art	112	6.61	3.59
	Mixed Art	17	6.05	3.84
	More Than One Art Branch	69	7.17	3.54
	Total	299	6.77	3.59
Psychoticism	Plastic Art	81	5.35	3.51
	Ritmic Art	20	4.75	3.04
	Phonetic Art	112	5.27	3.79
	Mixed Art	17	6.88	3.90
	More Than One Art Branch	69	5.17	3.36
	Total	299	5.33	3.58

Table 5: One Way Disabledience Analysis (ANOVA) Applied In Order To Determine Significance of The Difference Between Psychological Symptom Scores Of Students Regarding The Branch of Art They Perform

Psychological Symptom	Source of Variance	Sum of Squares	sd	Mean of Squares	F	p
Somatization	Inter-groups	24.270	4	6.067	0.248	0.911
	In-groups	7203.918	294	24.503		
	Total	7228.187	298			
Obsessive -Compulsive Disorder	Inter-groups	124.808	4	31.202	1.532	0.193
	In-groups	5987.941	294	20.367		
	Total	6112.749	298			
Interpersonal Sensitivity	Inter-groups	90.506	4	22.627	2.016	0.092
	In-groups	3300.377	294	11.226		
	Total	3390.883	298			
Depression	Inter-groups	49.065	4	12.266	0.490	0.743
	In-groups	7364.848	294	25.051		
	Total	7413.913	298			
Anxiety Disorder	Inter-groups	41.219	4	10.305	0.562	0.691
	In-groups	5394.293	294	18.348		
	Total	5435.512	298			
Hostility	Inter-groups	65.348	4	16.337	0.841	0.500
	In-groups	5713.869	294	19.435		
	Total	5779.217	298			
Phobic Anxiety	Inter-groups	65.623	4	16.406	1.506	0.200
	In-groups	3201.735	294	10.890		
	Total	3267.358	298			
Paranoid Thoughts	Inter-groups	23.543	4	5.886	0.451	0.772
	In-groups	3835.889	294	13.047		
	Total	3859.431	298			
Psychoticism	Inter-groups	49.756	4	12.439	0.969	0.425
	In-groups	3774.465	294	12.838		
	Total	3824.221	298			

Findings and Interpretations Regarding Psychological Symptom Scores of University Students in Accordance With Their Interest In Performance of Art:

t value, standard deviation and mean values of psychological symptom scores of participating university students pertaining their interest in performance of art are given in Table 3 below:

There was found significant difference between hostility and paranoid thought scores of art-performing and disinterested students in favour of art-performing ones; ($t_{995} = 2.378$, $p = .018$; $t_{995} = 2.218$, $p = .027$); whereas, no significant difference observed between somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety disorder, phobic anxiety and psychoticism scores ($t_{995} = 1.165$, $p = .244$; $t_{995} = 1.331$, $p = .184$; $t_{995} = -0.495$, $p = .621$; $t_{995} = 0.722$, $p = .470$; $t_{995} = 0.559$, $p = .576$; $t_{995} = 0.156$, $p = .876$; $t_{995} = 0.490$, $p = .624$). High level of hostility and paranoid thought scores of art-performing students obtained from data can be explained through their enthusiastic, creative, inquiring and flexible thoughts and feeling forms [5].

There are some research findings exhibiting artistic activities' protecting individuals from detrimental inclinations and contributing to motivation, development and learning as well as adaptation processes [23-25].

Findings and Interpretations Regarding Psychological Symptom Scores of University Students in Accordance With The Art Branch They Perform:

Standard deviation and mean values of psychological symptom scores of participating university students pertaining the art branch they perform are given in table 4 below:

The findings of one way disabledience analysis (ANOVA) applied in order to determine significance of the difference between psychological symptom scores of students regarding the branch of art they perform are shown in Table 5 below:

Scrutinizing the data given in table 5 above, no significant difference between psychological symptom scores of students in accordance with the branch of art they perform ($F = 0.248$, $p = .911$; $F = 1.532$, $p = .193$; $F = 2.016$, $p = .092$; $F = 0.490$, $p = .743$; $F = 0.562$, $p = .691$; $F = 0.841$, $p = .500$; $F = 1.506$, $p = .200$; $F = 0.451$, $p = .772$; $F = 0.969$, $p = .425$). This finding demonstrates art branches' having nothing to do with psychological symptoms and that they are developed under different factors confronted in period of life time rather than inborn skills and interests.

CONCLUSIONS AND RECOMMENDATIONS

There was found no significant difference between psychological symptom scores of students in accordance with their field of intelligence. This finding demonstrates intelligent fields playing almost no role in psychological symptom change. This case can be explained psychological symptoms' developing under destructive effects of challenging life conditions in after life rather than inborn skills.

There was found significant difference between hostility and paranoid thought scores of art-performing and disinterested students in favour of art-performing ones; whereas, no significant difference observed between somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety disorder, phobic anxiety and psychoticism scores. High level of hostility and paranoid thought scores of art-performing students obtained from data can be explained through their enthusiastic, creative, inquiring and flexible thoughts and feeling forms [5]. There are some research findings exhibiting artistic activities' protecting individuals from

detrimental inclinations and contributing to motivation, development and learning as well as adaptation processes [23-25].

There was no significant difference between psychological symptom scores of students in accordance with the branch of art they perform. This finding demonstrates art branches' having nothing to do with psychological symptoms and that they are developed under different factors confronted in period of life time rather than inborn skills and interest.

Recommendations:

- The psychological differences of students found in accordance with intelligence fields might be taken into consideration in career development processes and in employment.
- Psychological symptoms pertaining enthusiasim observed in art-performing students can be used as a means of boosting creativity.
- Art activities intended to lessen and prevent psychological symptoms should be planned and performed extensively and for a large student mass regardless of the branch.

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