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Social Anhedonia among Academics: The Role of Type A Personality, Age & Gender Differences

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Abstract

The study aimed to determine the role of Type A personality TAP, age, and gender differences in social anhedonia (SA). Participants: University of Baghdad non-patient academics (Number = 400) (females = 250, Males = 150) at ages 25-60, with a mid-range of 42.5 years old. Measures: The Revised Social Anhedonia Scale (40 items) and Howard Glazer Questionnaire (20 items) were applied. Data Analysis: The validity and reliability have been examined. When applying the Pearson Correlation, r between SA and TAP was 0.347. Type A1 personality (the highest score on TAP scale) had the highest score in SA. Results: There is a weak positive correlation between Type A personality and SA. Age can affect SA; older individuals tend to be more anhedonic. Females had higher scores on SA than males. Discussion: the relationship between SA and TAP required several studies of larger samples in different environments to determine the nature of this relationship and to ensure the positive correlation between them.

Keywords:Anhedonia, Type A, Gender, Personality, Non-Patient, University

1. Introduction

Anhedonia is a personality feature characterized by a decreased sense of pleasure (Rey et al., 2010). SA is a significant factor in psychopathologies like depression and schizophrenia (Zhang et al., 2016). It refers to taking less pleasure in social activities. In addition, it is related to maladjustment and psychopathological disorders (Goldstein et al., 2021). Individuals with SA also tend to be alone and choosing that even when others are with them, rendering them more isolated (Martin et al., 2016).

To study SA's relationship to other variables, especially personality types, Lussier and Loas (2015) tested the connection between Type D personality and Anhedonia; they found that social inhibition can be a predictive factor. Kwapil et al. (2008) tested the relationship between SA and the Five-Factor Model of personality dimensions. SA correlated negatively with extraversion, openness to experiences, and agreeableness. Silvia and Kwapil (2011) also found a negative correlation with positive emotions and warmth.

Social isolation also correlated with SA. Olson et al. (2021) examined the relationship between SA and social network diversity among participants with a history of trauma; they found that SA correlated negatively with social network diversity. Higher SA correlated with a weaker social network, which may lead to isolation.

Social Isolation SI also correlated with many personality traits (Buecker et al., 2020). Traits such as neuroticism were related to SI, while agreeableness and extraversion were related with social interactions (Whaite et al., 2018). As a result, the risk of isolation was increased (Petticrew et al., 2012).

The typical Type A lifestyle may also be a risk factor for SA. The TAP individual is often a workaholic who is frequently aggressive and hostile (Kanten et al., 2017; McLeod, 2021). TAP individuals also tend to be work under pressure and suffer from mental health issues and social impairment (Amir et al., 2011, 2010-2008). TAP is also seen in individuals who seek success and struggle with time management. They become angry at any delay in accomplishing their work (Batigün & Şahin, 2006). TAP individuals seem to be more concerned with the usual situation and feel more hatred (Schiraldi & Beck, 1988).

Freidman and Rosenman demonstrated in many studies that people with TAP suffer from high blood pressure and cardiovascular disease more than other personality types (McLeod, 2021).

Hypothesis 1: Type A personality tend to have SA.

1.1 Social anhedonia and age

Other variables like age have received a lot of attention in studies of depression but not in SA. Research has demonstrated that SA increases in older age; almost a third of the elderly suffers from this disorder (Dotson, 2018). One study examined the age factor and its contribution to SA; Dodell-Feder and Germine (2018) showed that younger age often has a higher frequency of SA than older age.

Hypothesis 2: Age may affect SA.

1.2 Social anhedonia and gender

A few studies examined the relationship between SA and gender. Rueda (2019) refers to prior studies that are conflicted about the role of gender in SA. Langvik et.al. (2016) found no gender differences in SA. However, Rueda (2019) indicated that women might be more likely to suffer from Anhedonia due to their higher vulnerability to depression compared to men, while Dodell-Feder and Germine (2018) maintained that women have lower SA scores than men because of their particular social skills and their ability to enjoy interactions with others.

Hypothesis 3: Males tend to score higher for social anhedonia than females.

2. Method

2.1 Characteristics of participants

Four hundred non- patient participants were University of Baghdad academics (females = 250, Males = 150) ages 25-60, with a mid-range of 42.5 years old. The sample was divided by age into four groups: 30 teachers aged 25-30 years old, 155 teachers aged 31-40, 120 teachers aged 41-50, and 95 teachers aged between 51-60 .

2.2 Sampling procedure

The random sample method was used, collecting data through Google Forms and online questionnaires in the academics' scientific groups in Facebook, through other social media, and emails. Personal interviews were also conducted with many of the participants.

2.2.1 Measures and Covariates

Self-Report Measures: The two scales below were applied:

- Social Anhedonia scale: the author applied the Revised Social Anhedonia Scale (Eckblad, Chapman, Chapman, & Mishlove, 1982) which contains 40 items that measure the inability to experience pleasure from social activities such as interactions with people, sharing emotions, or simply conversing (Chmielewski et al., 1995). The response was True/ False choice.
- Type A Personality scale: the author applied the Howard Glazer Questionnaire "The Glazer Stress Control Life-Style Questionnaire" (1978) to measure Type A behavior. The scale contained twenty items, each consisting of two phrases, placed at opposite ends of a continuum ranging from extreme Type A behavior pattern to its absence. Participants were asked to rate themselves on every twenty items on 7-point Likert scale. The lowest score was twenty, while the highest was 140. The results can be divided into five personality types: A1= 109-140, A2 = 80-108, AB = 60-79, B2 = 30-59, B1 = 20-29 (Glazer, 1979).

2.2.2 Research Design

Method Approach: Survey method applied online using Google forms.

Demographic Information: The age and gender data were supplied by the participants in Arabic.

Control Variables: Participants were asked if they were subject to symptoms of depression. The condition that they all shared was occupational fatigue and this variable does not affect the study.

3.Results

3.1 Recruitment

The period of recruitment and follow up was three months, while data analysis requires several more months.

3.2 Statistics and Data Analysis

Validity: To examine the validity for the SA and TAP scales, Construct Validity was constructed by using the Pearson correlation coefficient to measure items related to the total score. T- Calculated > 1.97 ($\alpha = 0.05$, D.F.=398), meaning all the items of the SA and TAP scales were significant.

Translation Validity: The author presented both scales to an English language specialist for translation into Arabic and then re-translated it into English to check the compatibility of the two translations. As a result, a version suitable for the environment of Iraqi society was reached.

Reliability: The author used the Split-Half method for SA scale; the Pearson correlation coefficient was (0.79). By using the Spearman–Brown prophecy formula, the reliability coefficient was (0.88) and the Alfa Cronbach was (0.79).

Additionally, the author examined the reliability of the TAP scale by using the Pearson correlation coefficient, (0.73). The Spearman–Brown prophecy formula was (0.84) and the Alfa Cronbach was (0.89).

Size: Given the size of the population, the author used the Cochran formula to determine the sample size.

Using the Statistical Package for the Social Sciences (SPSS) Version 20 for results, the author extracted mean and standard division values for TAP. A1 was the most popular ($n=150$), while B1 was the less ($n=0$).

Table 1: The number of participants for each type, means and standard divisions, and lowest-highest scores on the TAP scale:

TAP	N	Mean	Standard Deviation	Lowest Score	Highest Score
A1	150	115.58	4.78	110	124
A2	133	97.52	6.87	80	108
AB	84	70.58	5.38	62	78
B2	33	38.18	2.38	30	46
B1	0	-	-	-	-
Total	400	93.74	24.14	30	124

To examine the relationship between TAP and SA, the author applied the Pearson correlation coefficient for TAP with SA scales. The TAP mean was 93.74, the SA mean 19.34, and the t calculated value > 1.97 at 0.05.

Table 2: Means, Standard Deviations, D.F., and T values for SA and TAP

Scale	M.	S.D.	T Calculated value	D.F.	T Table value	Significance
SA	93.74	24.14	59.85	798	1.97	Significant
TAP	19.34	5.93				

The general correlation between TAP and SA was positive ($r = 0.347$ / weak positive). A1 was the highest correlated with SA, others had no significant correlation (A2-B2), while AB had a negative correlation with SA ($r = -0.659$).

Table 3: The relationship of each type with SA, $\alpha = 0.05$

TAP	r_{Pearson}	Calculated T Value	T Table value	D.F.	Significance
A1	0.347	4.5	1.97	148	Significant/ weak positive correlation
A2	0.145	1.68	1.97	131	Non-significant
AB	-0.659	7.93	1.99	82	Significant/ negative correlation
B2	-0.037	0.21	2.04	31	Non-significant
B1	-	-	-	-	-

To investigate the relationship between age and SA, the author applied the Two - Way ANOVA to test the differences in the groups' means.

Table 4: T-W ANOVA, D.F.= 3, 396, 399, $\alpha = 0.05$

Sources of Variation	Sum of squares	Degree of freedom D.F.	Mean sum of squares	F-ratio	Significance
Between	163.565	3	54.522	1.512	Not Significant
Within	14275.225	396	36.049		
Total	14438.790	399			

F ratio (1.512) < (2.64) at $\alpha = 0.05$, D.F. = 3,396, meaning there were no significant differences among age groups in the SA scale.

Although there were no age differences in SA, the older group ($m= 20.66$) tended to be more socially anhedonic than other age groups. This result matched with several studies (Lampe et al., 2001; Sharpley et al., 2017) that have shown that the level of anhedonia can be affected by age.

Table 5: Means and Standard Deviations of age groups

Age Group	Mean	Standard Deviation
25-30	18.83	5.37
31-40	19.12	5.23
41-50	19.42	5.83
51-60	20.66	7.43

To reveal on relationship between gender & SA, the author used the T- Test for independent samples to test the gender differences.

Table 6: T- Test for independent samples, $\alpha= 0.05$.

Gender	Sample Size	Mean	Standard Deviation	Calculated - T Value	Degree of Freedom	T- Table Value	Significance
Female	250	20.42	7.26	3.19	398	1.97	Significant
Male	150	18.51	1.16				

The Calculated T value ($3.19 > 1.97$ (T- Table value)) meant that there was a difference in SA between females and males. The female group mean was 20.42. greater than 18.51 for the male group mean. Females tended to be more socially anhedonic than males in their daily life. This result did not match with many studies (Cvjetkovic-Bosnjak et al., 2016; Dodell- Feder & Germine, 2018; Goldstein et al., 2021) which confirmed that males scored high on SA scale compared to females.

4. Discussion

The relationship between SA and TAP requires several studies on a larger sample in different environments to determine the nature of this relationship and to ensure the positive correlation between them. The " Hard- Work" person may feel more depressed; W.H.O. reported that negative work environments might create depressed employees and lead to a reduction in productivity (Lindberg, 2021).

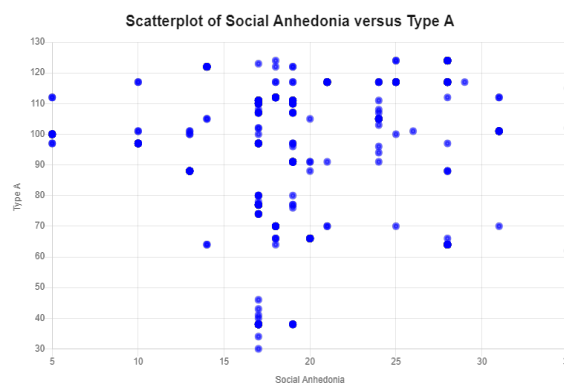


Figure 1: Scatter Plot of SA scale and TAP scale scores

The size of the sample in this study may be the reason for the weak positive correlation in this scatter plot. study. Determining the relationship between SA and TAP requires further research. Yet, although the correlation is weak, it is still positive, confirming the link between the TAP lifestyle, especially A1 with SA.

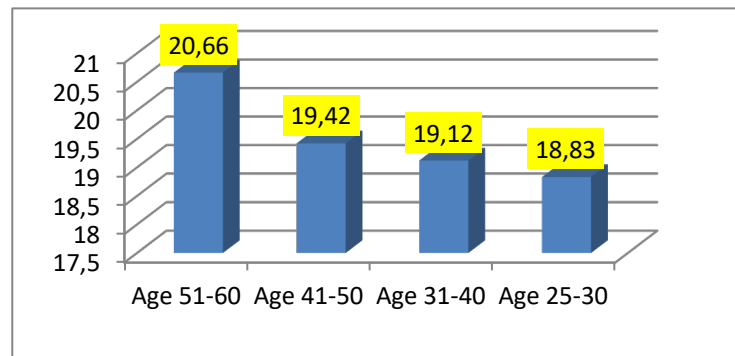


Figure 2: SA means according to age variable

Age is also a risk factor in SA. Older people tend to be more anhedonic compared to younger people. Social isolation has increased recently due to low income, separation from families, migration to live and work in other places, and the loss of loved ones over time (Fakoya et al., 2020). Gender can be an additional determinant in SA syndrome. In this study women tend to be more anhedonic and isolated than men; these results oppose a number of previous results (Vandervoort, 2000; Henning-Smith et al., 2018). This could be the nature of community from which the sample came.

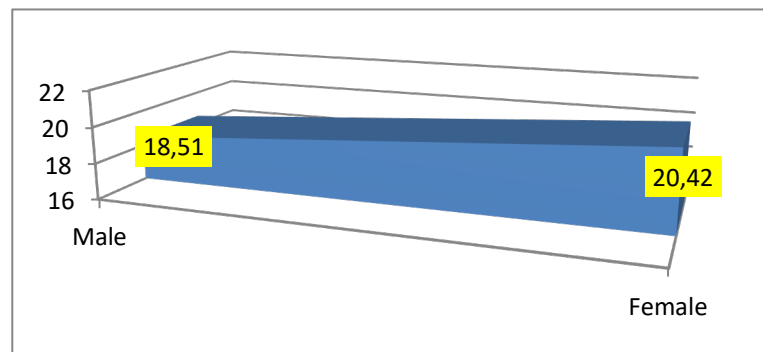


Figure 3: SA means according to gender variable

4.1. Theoretical contributions:

The relationship between Type A1 and SA may be predictable because of the TAP lifestyle. TAP individuals tend to be obsessive workaholics who prefer work to social interactions. As a result, they may be at risk of isolation (Petticrew et al., 2012).

The role of age in anhedonic behavior is somewhat unclear and neutral. However, the high mean of the older age group on the SA scale may be attributed to several factors, including the decrease in social engagement due to old age. This result agreed with many studies that assessed the nature of social activities in aging. Marcum (2011) reported on the differences in the type of activity between younger and older age, and (Benjamins et al., 2003) also supported the idea of the withdrawal of older age especially when it is associated with other factors such as low general health.

Gender differences are often influenced by societal culture. In general, females in eastern societies suffer much more than males from a lack of social interaction and activities, which affects their reactions to social events. The lack of resources in Arab psychological environments and gender studies may prompt a reconsideration of directing studies towards this environment.

It is important to remember that it is not only the gender factor that is the cause or contribute in SA, but rather the nature of the combined factors in this sample in terms of educational level, age and environment, which contributed on SA level gender differentiation.

Stress in daily life also plays a significant role in killing pleasure. People who suffer acute- chronic stressors can be less likely to feel pleasure (Grillo, 2016). SA usually conforms with stress and follows it (Grillo, 2012). People in a country such as Iraq- who suffer from wars and endless conflicts (World Health Organization, 2007) - often suffer from painful, unsafe events for an extended period, affecting mood and well-being and making them more liable to suffer from SA.

Types of employment may affect SA. The academic's work is characterized by the necessity for accuracy, focus, and preoccupation with scientific research. The environment of academic life may contribute to a kind of isolation. Spending time alone may affect mental health; 40% of academics may feel lonely and isolated in their work environments (Sibai et al., 2019).

4.2 Practical implications

The finding that TAP was associated with SA has important implications that could lead to the discovery of factors that may influence SA and enhance the importance of the personality field in diagnosing developing or precipitating depression. Furthermore, this discovery contributes to the understanding of gender differences in Anhedonia and its connection to personality. Safety environments also may affect SA by increasing the anxiety levels. Many societies through the world suffer from deteriorating security situations due wars or political conflicts, and that can be a new direction to study these impacts on SA levels. Finally, these results may contribute to a deeper understanding of how academia impacts an individual's mental health, making it possible to improve the environment of university academics.

Due to the curfew enforced during the COVID-19 pandemic, and following safety measures during the epidemic crisis; handing out forms on the university campus became a challenge. Hence, the author used Google Forms method and incomplete forms were excluded. Sample type was another problem; in general, the Middle Eastern participants found it difficult to respond and interact with the psychological scales and often did not cooperate with the research, especially when filling out answers online. According to the author's view; this may be due to their somewhat secretive nature and their inability to express themselves normally. It may also be due to their lack of actual certainty in the field of scientific research and its results.

4.3 Directions for future research

The relationship of SA to personality types should also be studied extensively, as well as the study of SA's connection to the emotional, practical and material relationships of the individual. It is also important to study TAP and its link to depression.

SA is often the result of an uncomfortable work environment. It is not always linked to a specific age nor to a specific gender. Individuals with SA share many characteristics, among them an intellectual preoccupation and a strong predilection for work. A low level of social support may also be a contributing factor. These ideas require more investigation.

Only a few studies analyze the relationship between SA and personality types, as well as the role of age and gender in this syndrome. This study is the first of its kind to examine these relationships in the Arabic environment.

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The Conflict of Interest

The author declared that there are no potential conflicts of interest concerning this article's research, authorship, and publication.

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