Social Anxiety Disparity Between Extroverted and Introverted Psychology Students During COVID-19 at University "X"

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Abstract. Social anxiety is a global phenomenon that can be experienced by various groups, one of which is students with extroverted and introverted personality types. The purpose of this research is to determine the difference in the level of social anxiety between extroverted and introverted personality types among students during the COVID-19 pandemic. This study is a comparative quantitative study that uses proportionate stratified random sampling with a sample size of 139. The measurement tools used are the Eysenck Personality Inventory to measure personality types and the Liebowitz Social Anxiety Scale to measure social anxiety. Hypothesis testing shows that there is a significant difference in the level of social anxiety between extroverted and introverted personality types. Introverted personality types have a higher level of social anxiety compared to extroverted personality types. This significant difference is due to the differing characteristics of extroverted and introverted personality types in facing social situations, resulting in different tendencies towards social anxiety, whereas introverts tend to have higher social anxiety tendencies.
Keywords: Personality Type; Extrovert; Introvert; Social Anxiety

Abstrak. Kecemasan sosial merupakan fenomena global yang dapat dialami oleh berbagai kalangan, salah satunya yaitu terjadi pada mahasiwa yang memiliki tipe kepribadian ekstrovert dan introvert. Tujuan dari penelitian ini yaitu untuk mengetahui perbedaan tingkat kecemasan sosial antara tipe kepribadian ekstrovert dan introvert pada mahasiswa selama pandemi COVID-19. Penelitian ini berjenis kuantitatif komparatif yang menggunakan teknik proportionate stratified random sampling dengan jumlah 139 sampel. Alat ukur yang digunakan yaitu Eysenck Personality Inventory untuk mengukur tipe kepribadian dan Liebowitz Social Anxiety Scale untuk mengukur kecemasan sosial. Pengujian hipotesis menunjukan hasil bahwa terdapat perbedaan signifikan pada tingkat kecemasan sosial antara tipe kepribadian ekstrovert dan introvert. Tipe kepribadian introvert memiliki tingkat kecemasan sosial yang lebih tinggi dari pada tipe kepribadian ekstrovert. Perbedaan yang signifikan disebabkan karakterisitik dari tipe kerpibadian ektrovert dan introvert yang berbeda dalam menghadapi situasi sosial menghasilkan kecenderungan kecemasan sosial yang berbeda pula, dimana introvert memiliki kecenderungan kecemasan sosial yang lebih tinggi.
Kata kunci: Tipe Kepribadian, Ekstrovert, Introvert, Kecemasan Sosial

Introduction

Each individual possesses an inherent uniqueness that sets them apart from others. A distinguishing factor is their personality type. While fundamentally social beings (Hofmann & DiBartolo, 2010), an unforeseen occurrence emerged— the COVID-19 pandemic sweeping globally, leading to a decline in social activities. This applied to students as well, compelling them to continue education from home due to imposed governmental lockdowns. Li (2020) asserts that social anxiety may stem from various factors, including the COVID-19 pandemic. Furthermore, Li (2020) notes that although students engage in remote activities, they gradually adapt to the comfort of socially distanced situations. Given time, students' social roles will amplify, especially for soon-to-graduate students, as their social milieu becomes increasingly intricate (Li, 2020).

Several researchers have investigated the correlation between social anxiety and introverted and extroverted personality types. The outcomes of a study by Kukku, Smitha, and Reddy (2020) demonstrated that social anxiety does not significantly differ between extroverted and introverted personality types across genders. In correlational research carried out by Contractor and Sarkar (2018), it was discovered that the extraversion personality type exhibited a negative correlation with social anxiety. This suggests that higher scores on the extraversion scale are associated with lower levels of social anxiety. Conversely, lower scores on the introversion scale are linked to higher levels of social anxiety. In congruence with these findings, a study conducted by Mahmudah, Erawati, and Ihsan (2021) also demonstrates a weak negative correlation between individuals with introverted personality types and social anxiety.

An experimental study conducted by Gal Arad et al. (2021) examined university students from Tel Aviv University, consisting of a social distancing group (N=55) and a non-social distancing group (N=44). Based on the conducted experiment, the conclusion drawn was that social anxiety decreased from odd to even semesters in students before the pandemic. However, during the COVID-19 pandemic, social anxiety levels remained consistently high and unchanged between odd and even semesters.

Leary and Kowalsky (1995) as cited in Faranzoi (2008) explain that social anxiety is an unpleasant emotion experienced due to the individual's focus on interpersonal evaluation. Social anxiety requires attention, as noted by Hofmann and Dibartolo (2010), it's a universal phenomenon, signifying that every individual tends to experience social anxiety. This extends to students, who, in terms of age, belong to emerging adulthood and have the developmental task of becoming independent in their social roles (Voices for Children, 2017). Additionally, social anxiety is commonly found among students aged 18-24 (Jefferies, 2020). According to Jung (Alwisol, 2009), fundamentally, every individual possesses both personality types, introvert and extrovert, with varying proportions (one being dominant and conscious).

The phenomenon of social anxiety among students at University "X" has also been identified. In 2021, researchers conducted an open-ended survey involving 129 students, comprising 46 male students and 83 female students (aged 19-23 years). The results indicated a range of academic settings that triggered social anxiety among the University "X" students. In the context of performance, these situations encompassed class presentations, public speaking, impromptu oral exams, and group projects. Meanwhile, within the realm of social interaction, students experienced anxiety when receiving both positive and negative feedback, being praised by others, asking questions to professors, confronting challenging professors, engaging in conversations with the opposite gender, and communicating with authoritative figures. Updated data collected by researchers in 2022 from 99 students showed that 17% of students experienced mild social anxiety, 25% reported moderate levels, 24%

exhibited marked levels, 15% indicated severe levels, and a significant 18% of students were categorized as experiencing very severe levels of social anxiety.

In addition to conducting open-ended inquiries, researchers obtained preliminary data through questionnaires administered to the students of University "X" regarding the relationship between social anxiety and personality types. The findings indicated that social anxiety was more prevalent among students with introverted personality tendencies compared to their extroverted counterparts. Certain students presumed to be introverted exhibited physiological anxiety symptoms such as sweaty palms, increased heart rate and respiration, and muscle tension in social situations (Leary & Kowalsky, 1995). In social interaction scenarios, they tended to be reserved, and evasive and preferred conversing exclusively with close friends. These behaviors stemmed from feelings of fear, awkwardness, and hesitation in initiating interactions with others, as well as discomfort when in the presence of a group of individuals.

On the other hand, in performance situations, they experienced panic, anxiety, and nervousness. They are also inclined towards thorough preparation and mastery of the material to be presented as a preventive measure against potential errors that might lead to negative evaluations from others. Among students with extroverted tendencies, there were instances where they too experienced anxiety and fear of others' perceptions. Consequently, they exercised caution in conveying their thoughts to others. According to the preliminary data, one in five extroverted students reported increased heart rate, sudden mental blankness, and fear during presentations. The objective of this study is to ascertain the variance in the degree or level of social anxiety between extroverted and introverted personality types among students at University "X" during the occurrence of the COVID-19 pandemic. The research question formulated is whether there exists a disparity in the level of social anxiety between extroverted and introverted personality types among students of the Psychology Faculty at University "X" during the COVID-19 pandemic.

Method

This research is quantitative-comparative, aiming to compare the levels of social anxiety between students with extroverted and introverted personality types during the COVID-19 pandemic. The sample size for this study was 139 students, selected using a proportionate stratified sampling technique. Data collection was conducted through a Google Form questionnaire distributed via social media. The measurement instrument employed to assess students' personality types was the Extraversion scale from the Eysenck Personality Inventory (EPI), consisting of 24 items with a reliability value of 0.718 based on KR20 calculations. Meanwhile, the measurement tool employed to gauge social anxiety was the Liebowitz Social Anxiety Scale (LSAS), comprising 24 items, with a Cronbach's Alpha coefficient of 0.942.

Result

Based on the testing conducted using JASP 14.1.0 software, the obtained results are as follows:

Table 1.
Hypothesis Test

Independent Sample T-Test	Test	Statistic	df	p
Total_Performance	Student	-4,282	137	<.001
	Mann-Whitney	1,322.000		<.001
Total_Social Interaction	Student	-5,790	137	<.001
	Mann-Whitney	1,194.500		<.001
Total_LSAS	Student	-6,068	137	<.001
	Mann-Whitney	1,133.500		<.001

Based on the outcomes derived from the independent sample t-test results presented in Table 1, the Mann-Whitney U test value reveals a p-value of <0.001. This substantiates a statistically significant distinction in the levels of social anxiety between individuals exhibiting extroverted and introverted personality types, as indicated by the p-value being < (below) 0.05. This pattern of results is consistent across the subcategories of performance (p-value < 0.001) and social interaction (p-value < 0.001) as well.

Table 2.
Descriptive Statistics

Group Descriptives	Group	N	MEAN	SD	SE
Total_Performance	Ekstrovert	72	16.250	9.386	1.106
	Introvert	67	24.985	11.878	1.451
Total_Social Interaction	Extrovert	72	16.222	9.335	1.100
	Introvert	67	27.313	13.061	1.596
Total_Lsas	Ekstrovert	72	31.500	16.243	1.914
	Introvert	67	52.299	23.719	2.898

Through the descriptive statistical data provided in Table 2, it can be inferred that the mean values of the accumulated scores on the social anxiety scale reveal that the cohort categorized as having introverted personality types manifests higher mean values in comparison to the group classified with extroverted personality types. This observation applies to both the aggregate scores derived from the LSAS scale and the cumulative scores within the subdomains of performance and social interaction.

Table 3.
Social Anxiety Cross Tabulation

Social Anxiety	Personality				TOTAL
	Ekstrovert		Introvert		
	Total	%	Total	%	
Do Not Suffer	37	77%	11	23%	48
Mild	22	45%	27	55%	49
Moderate	9	53%	8	47%	17
Marked	4	25%	12	75%	16
Severe	0	0%	5	100%	5
Very Severe	0	0%	4	100%	4
Total	72		67		139

The social situations feared or apprehensively avoided based on personality types are depicted in the table below:

Table 6.
Social Situations

Social Situation	Ekstrovert		Introvert	
	Fear	Avoidance	Fear	Avoidance
Performance				
Impromptu oral exams	48	42	46	39
Public speaking	28	20	36	25
Oral exams	30	21	32	20
Classroom presentations	24	5	38	16
Group projects	1	1	4	7
Written exams	0	0	0	0
Unplanned written exams	0	0	0	0

Social Situation	Ekstrovert		Introvert	
	Fear	Avoidance	Fear	Avoidance
Social Interaction				
Confronting challenging professors	32	33	35	26
Receiving negative feedback	25	14	27	13
Asking questions to professors	8	5	25	11
Communicating with authoritative figures	11	9	21	10
Facing criticism	9	9	13	8
Conversing with the opposite gender	8	13	12	6
Receiving compliments from others	3	1	3	5
Receiving positive feedback	1	1	1	0

As for the data obtained from the research participants regarding their feelings towards the presence of the COVID-19 pandemic, the conclusions can be summarized as follows:

Table 7.
Conclusions from Open-Ended Questions

Rank	Conclusions/Themes
1	Boredom
2	Anxiety
3	Fine/Okay
4	Infrequent socialization
5	Unproductive
6	Disruptive to activities
7	Ennui
8	Reduced socializing ability
9	Loneliness and feelings of isolation
10	Stress
11	Becoming introverted
12	Laziness
13	Various changes

Discussion

The disparity in social anxiety levels during the COVID-19 pandemic among active students of the Psychology Faculty at University "X," categorized by their extroverted and introverted personality types, demonstrates a statistically significant distinction with a p-value of <0.001. The mean social anxiety score for individuals with extroverted personality types is 31.500, classifying them under the mild or minor social anxiety category. Conversely, the mean score for the introverted personality

group is 52.299, indicating a moderate level of social anxiety. It's noteworthy that this moderate classification aligns with the clinical threshold set at 50, as established by Arad et al. (2020).

Active students within the Psychology Faculty at University "X" who exhibit introverted personality tendencies display a heightened predisposition towards social anxiety when contrasted with their extroverted counterparts. This assertion is grounded in the derived mean values, wherein the introverted cohort exhibits a higher mean score for social anxiety in comparison to the extroverted group. This observation aligns with precedent correlation analyses that affirm the negative correlation between social anxiety and both extroverted personality traits (Contractor & Sarkar, 2018) and introverted personality traits (Mahmudah et al., 2021). Essentially, these findings signify that elevated score on the extraversion scale (indicative of extroversion) correspond to diminished levels of social anxiety, and conversely, reduced scores on the extraversion scale (indicative of introversion) correspond to escalated levels of social anxiety.

The significant disparity in levels of social anxiety between groups of students with introverted and extroverted personality types is attributed to the bipolar or opposing nature of the extroversion and introversion dimensions (Eysenck, 1998). Consequently, the distinct characteristics associated with these two personality types in facing social situations also differ, allowing for variations in experienced levels of social anxiety.

The extroverted personality type tends to be socially outgoing and can easily interact with anyone, thus cultivating a wide circle of friends. They enjoy parties as they require others to engage in conversation and generally dislike studying alone (Eysenck, 1964, as cited in Alwisol, 2009). These characteristics of extroverts make them less prone to experiencing high levels of social anxiety. They willingly involve themselves in various social situations. In contrast, the introverted personality type tends to be reserved, shy, and introspective and favors books over people (Eysenck, 1964). They have a proclivity to avoid social situations.

The elevated level of social anxiety among introverted students is also attributable to their subjective perspective, where they perceive that other are negatively judging them, even though this perception may not necessarily be accurate (Leary & Kowalski in Franzoi, 2008). Conversely, extroverted individuals adopt a more objective viewpoint. They test others' interpretations of them in social situations, often through direct eye contact. As a result, extroverts are better equipped to assess social situations more realistically (Purdon, 2001).

Differences in the levels of social anxiety based on gender were also identified in this study, with females exhibiting a higher percentage of social anxiety compared to males. This finding aligns with the research outcomes of Kukku et al. (2021). Significant differences were also observed within the subcategories of performance and social interaction, where introverts attained higher average scores in both subdomains. Introverts obtained a mean score of 24.985 in the performance subcategory, while extroverts obtained a mean score of 16.250. In performance situations, introverts experience fear or anxiety when their performance is being observed by others (Liebowitz, 1987 as cited in Kalalo et al., 2021), which tends to be higher compared to extroverts. Similarly, in social interaction scenarios, the introverted personality group attained a mean score of 27.313, whereas the extroverted personality group achieved a mean score of 16.222. This demonstrates that the introverted personality group is more prone to experiencing fear or anxiety during interactions with others (Liebowitz, 1987 as cited in Kalalo, Marlietama & Cristabel, 2021) compared to the extroverted personality group.

Apart from the observed differences in social anxiety levels between extroverted and introverted personality types, there are also common patterns in the description of performance situations among students that evoke social anxiety. These situations include impromptu oral exams, public speaking, oral exams, classroom presentations, and group projects. Conversely, social interaction scenarios that trigger social anxiety encompass facing challenging professors, receiving negative feedback, posing questions to professors, conversing with authoritative

figures, facing criticism, engaging in conversations with the opposite gender, receiving compliments, and receiving positive feedback.

However, written exams and unplanned written exams do not induce anxiety or avoidance behaviors in both personality groups. This absence of anxiety or avoidance can be attributed to the fact that during the COVID-19 pandemic, academic activities including exams were conducted remotely from home, thereby eliminating the sensation of anxiety or fear traditionally associated with such situations. This is due to the absence of direct monitoring of their performance by instructors or exam proctors.

Both extroverts and introverts experience higher levels of anxiety or fear rather than avoidance behaviors. While the social situations that evoke social anxiety between extroverted and introverted personality types are almost similar, their experiences remain distinct when analyzed through the frequency data presented in the table. Specifically, introverted personality types report higher levels of anxiety and avoidance in these situations compared to extroverts. In this context, social anxiety can pose significant risks to mental health and have detrimental effects on academic tasks and personal lives (Li, 2020). The adverse effects stemming from social anxiety may lead to fearing everyday activities such as meeting new people or talking on the phone, causing individuals to reduce their interactions or avoid engaging with others (Jefferies, 2020).

From the supplementary questionnaire data, four respondents were willing to provide explanations about situations that trigger physiological symptoms of social anxiety. It can be concluded that they feel fear, anxiety, shame, and panic when in crowded settings due to the fear of being negatively evaluated by others, feeling pressured, and experiencing discomfort. The crowded situations described by the respondents include scenarios where they are the center of attention and engage in social interactions with unfamiliar individuals. During the Covid-19 pandemic, they had fewer interactions with others. Nonetheless, the intensity of their physiological

social anxiety symptoms is still relatively infrequent and occasional, thus not significantly disrupting their daily lives.

Based on prior research findings, social distancing during the COVID-19 pandemic has led to an increase in social anxiety symptoms (Arad et al., 2021). As for students' perceptions of their experiences during the pandemic, they reported feeling bored and frustrated due to government policies mandating remote learning and limiting face-to-face interactions. This has led to reduced socializing, diminished social skills, limited outdoor activities, disruptions caused by frequent policy changes, and a sense of decreased productivity and laziness. Additionally, some respondents felt anxious, stressed, more introverted, isolated, and lonely during the pandemic. Therefore, based on the collected data, the COVID-19 pandemic setting has had notable negative impacts on students.

The government's policies to manage the COVID-19 pandemic through social distancing have led to a drastic reduction in direct social exposure. Consequently, this reduction has increased social anxiety (Li, 2020). This observation aligns with the findings of Arad et al. (2020), which suggest that levels of fear and avoidance (social anxiety) are influenced by social distancing, and everyday social exposure plays a role in reducing symptoms of social anxiety. However, some students report that they are coping well during the Covid-19 pandemic. According to Li's (2020) research, these individuals possess strong adaptive mental capabilities that enable them to navigate uncertain social situations adeptly.

The collected data indicates the presence of students falling into categories of moderate, marked, severe, and very severe social anxiety, with introverted personality types being predominantly represented. Such findings suggest potential hindrances and challenges for socially anxious individuals in fulfilling their social roles and meeting normative expectations (Voice for Children, 2017). The phase of emerging adulthood characterizes an age group that explores various possibilities, particularly in relationships and careers (Arnett, 2004). As a result, individuals with

a propensity for high social anxiety are less likely to marry or divorce, have children, frequently miss work, and exhibit poorer job performance (Jefferies, 2020).

One approach to alleviate social anxiety is to encourage exposure to feared social situations (Arad et al., 2021). Previous studies have demonstrated that exposure to social situations, whether virtual or in vivo, effectively reduces social anxiety symptoms (Anderson et al., 2013; Hindo & González-Prendes, 2011; Kampmann et al., 2016; Powers et al., 2008; Rodebaugh et al., 2004 in Arad et al., 2020). During the pandemic, individuals can mitigate social anxiety by engaging in social interactions or socializing through mediums like video calls. Thus, socially anxious students can effectively mitigate the development of social anxiety during the Covid-19 pandemic.

This study aims to provide new insights to address a research gap. The significant difference in social anxiety levels between extroverted and introverted personality types during the COVID-19 pandemic underscores a substantial gap in social anxiety levels between these personality types. Furthermore, the study reveals that introverts tend to experience higher levels of social anxiety.

Conclusion

Based on the conducted study, it can be concluded that there is a significant difference in the level of social anxiety among active students from the Faculty of Psychology at University "X" with introverted and extroverted personality types. More specifically, students with introverted personality types tend to experience a higher level of social anxiety compared to those with extroverted personality types.

Suggestion

Based on the study findings, it is recommended that university support services consider tailoring interventions and resources to address the varying social anxiety levels among students with introverted and extroverted personality types. This could involve providing targeted support, such as workshops or counseling, to

help introverted students manage their higher levels of social anxiety effectively during their academic journey.

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