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Psychological Distress in Kufa University Students: A Comparative Study between Humanistic and Scientific Fields and Day vs Night Study Schedules

Duaa Abdul Hadi Fatlawi*[1], Ahmed Burhan Abdulameer[2], Rawnaq Hussain Al-Ghrebaw[3]
[1,2,3] Faculty of Nursing, University of Kufa, Iraq
*Email: Duaaa.alfatlawi@uokufa.edu.iq

Abstract: Psychological distress is seen as an umbrella term that covers various emotional and somatic symptoms. It is not limited to clinical mental illness but spans a continuum from transient stress responses to chronic psychiatric conditions A descriptive comparative study approach was designed to meet the previously mentioned objectives of the current study. The period of the study is from 1st November 2024 to 20th March 2025. A convenience sample of (102) students from three scientific colleges (nursing Engineering and Science) and three humanistic colleges (Low, Arts, Jurisprudence) / University of Kufa from night and day study. The study instrument consist of two part, part1: Subjects socio-demographic data (Age/Years, sex, stage, type of study, type of college, residence, and monthly income), part2: Kissler Psychological Distress scale (k10). The results of the currents study revealed that the psychological distress among Kufa university students the overall mean of score of Kessler Psychological Distress (K10) Scale for morning and night study students. It shows that the overall mean of score of Psychological Distress is mild level (58.8%) for morning students and (68.6%) have mild levels for night study students. Inferential statistics has shown that there is no a highly significant difference in mean of score for night and morning study and scientific and humanistic collage. And it indicates that there is no significant relationship between Kessler Psychological Distress (K10) Scale and demographic data at (P>0.05). Except sex at (P=0.034) and monthly income at (P=0.030). A mild level of psychological distress was found among Kufa university students for both night and day study and humanistic and scientific colleges. The night study students exhibited a higher level of psychological distress than day study students. It is recommended to activate the sessions of educational guidance and support to deal with the problems and difficulties that may increase students' psychological distress. Achieving further studies about the effectiveness of educational programs in relieving psychological distress among students.

Keywords: Psychological Distress, Night Study, Scientific Fields

Introduction

The term ‘distress’ is frequently used in nursing literature to describe patient discomfort related to signs and symptoms of acute or chronic illness, pre- or post-treatment anxiety or compromised status of fetuses or the respiratory system. ‘Psychological distress’ may more accurately describe the patient condition to which nurses respond than does the term ‘distress’. Psychological distress is seldom defined as a distinct concept and is often embedded in the context of strain, stress and distress. This creates confusion for nurses attempting to manage the care of people experiencing psychological distress [1].

University life is a phase of transition that comes with outstanding academic challenges, social challenges, and personal development. Adjusting to university exposes students to various sources of stress, which may eventually cause psychological distress in the form of anxiety, depression or stress symptoms [2]. Such mental health challenges not only affect students’ well-being but also have a direct repercussion on their academic performance. The research intends to compare the psychological distress of university students based on two core dimensions. The first dimension compares night study students with day study students in view of the fact that study schedules may greatly influence sleep and circadian rhythms, [3] thereby affecting mental health. The second dimension examines differences between students enrolled in scientific disciplines and students of humanistic fields. Prior studies show that the curriculum and stress levels differ from subject to subject and this has an effect on students’ coping

strategies and stress levels [4]. Additionally, examines of the literature suggest subgroup differences may facilitate the development of effective mental health interventions [5]. Previous studies have investigated the level of depression [6], [7] and other measures of psychological distress in university populations and others have examined the role of lifestyle factors including sleep quality in students' mental health [4]. There are also meta-analyses that have evaluated several different types of stress-reduction interventions among university students, highlighting the importance of accounting for context in developing appropriate solutions given the emerging concerns of diverse educational backgrounds environments [8], [9] .Using a comparative approach, this study aims to expand on the understanding of the role of both time of study (evening study vs. day study) and academic field (scientific vs. humanistic) that increase psychological distress. By delineating these differences, however, the hope is that institutions will be able to create more nuanced systems of support that that effectively address the diverse needs of their student populations.Students attending universities around the world are facing mental health issues. Students who experience mental distress (anxiety, depression, chronic stress) can see their school performance affected. Research like [10], [11] shows that university students often have mental health issues, and this can have an impact. By focusing on Kufa University students, this study adds regional data that can better inform local policy and practice.Completely fascinating is day versus night study modes distinction. Research addressing the sleep behavior and mental health [12], indicates that night students may be subject to extra stressors such as circadian rhythm disruption, lifestyle imbalance, and difficulty accessing university services. The study compares psychological distress in day and night students to find out whether scheduling differences are important causes of variance in distress. Some subjects are more stressful than others. Most scientific faculties require a lot of hard work in the lab, solving difficult problems, and following strict protocols. This puts a lot of stress. On the other hand, humanistic subjects require heavy reading, interpretation, and subjective judgment, which are stressful in their own ways. So, comparing these groups may provide some insights into risk factors and resilience which are specifically related to these disciplines. This would be in agreement with Beiter et al [13] who reported discipline-specific mental health correlates. Young adults have the highest prevalence for mental disorders, with 26% of people aged 16–24 years and 25% of people aged 25–34 years having had a mental disorder. As the majority of university students are within these age groups, this may provide some explanation for the high prevalence of psychological distress in university students. For university students, mental health problems may be even more prevalent, as recent research has found that university students experience significantly higher levels of psychological distress than the general population [14]. Objectives of study aim:

1- To assess the psychological distress among Kufa university students.

2- to compare between day and night study and humanistic and scientific college students.

3- To find out the relationship between the psychological distress among Kufa university students and their demographic data.

Methodology

Design of the study

A descriptive comparative study approach was designed to meet the previously mentioned objectives of the current study. The period of the study is from 1st November 2024 to 20th March 2025.

Setting of the study :-

This study was conducted in the College of Nursing, College of Arts, College of Low, College of Engineering, College of sciences, College of Jurisprudence / University of Kufa.

Sample of the study :-

A convenience sample of (102) students from three scientific colleges(nursing Engineering and Science and three humanistic colleges(Low, Arts, Jurisprudence) that only with day and night studies / University of Kufa.

The Study instrument

The study instrument consist from two part: part1:subjects socio-demographic data (Age/Years, Gender, Marital status , Stage, Type of collage, Type of study, Residence, and Monthly income) and part2: (Kissler Psychological Distress scale (k10) The Kessler Psychological Distress Scale (K10) is a widely used screening tool designed to measure non-specific psychological distress in population-based studies. Developed by Kessler et al. (2002), the scale consists of 10 items that assess symptoms of anxiety and depression experienced over the past four weeks. Each item is rated on a 5-point Likert scale ranging from "none of the time" (1) to "all of the time" (5). Total scores range from 10 to 50, with higher scores indicating greater psychological distress. a total of 190 questionnaires for statistical analysis were collected from intensive care units in the hospitals. This method was done at the teaching hospitals that participated in this research. From October, 2022, to April 24th, 2023, the data collection procedure was conducted out.

Statistical analysis: Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 25 of the Statistical Analysis System. The following statistical data analysis approaches were used to analyze and evaluate the results of the study.

Results

Table 1. Statistical distribution of study subjects by their demographic data for night and morning study.

Socio-Demographic Data	Rating And Intervals	Night study(n=51)		Morning study(n=51)	
		Freq.	%	Freq.	%
Age	**<= 25**	**31**	**60.8**	**49**	**96.1**
	26 – 35	14	27.5	2	3.9
	36 – 45	3	5.9	0	0
	46+	3	5.9	0	0
Sex	**Female**	**28**	**54.9**	**40**	**78.4**
	Male	23	45.1	11	21.6
Marital status	**Single**	**31**	**60.8**	**46**	**90.2**
	Married	20	39.2	5	9.8
Residence	**Urban**	**40**	**78.4**	**43**	**84.3**
	Rural	11	21.6	8	15.7
Collage type	**Scientific collage**	**30**	**58.8**	24	47.1
	Humanistic collage	21	41.2	**27**	**52.9**

Stage	First	11	21.6	17	33.3
	Second	6	11.8	**18**	**35.3**
	Third	11	21.6	10	19.6
	Fourth	**23**	**45.1**	6	11.8
Monthly income	**Sufficient**	**26**	**51.0**	**28**	**54.9**
	Sufficient to somewha	22	43.1	19	37.3
	Insufficient	3	5.9	4	7.8

Table 1 displays the statistical distribution of the study subjects based on socio-demographic data, and it describes that the samples' subgroup has the highest percentage of: participants ages were (<= 25) years for both night study (60.8%) and morning study (96.1%), and (54.9%) were female in the night study and (78.4%) female in the morning study. those who were enrolling in forth stage (45.1%) in the night study, and (35.3%) in second stage in the morning study, those who are single (60.8%) in the night study and (90.2%) in the morning study; and those who lived in the urban area (78.4%) in the night study and (84.3%) in the morning study and those who are in the scientific collage (58.8%) in the night study and (52.9%) are in the Humanistic collage for morning study and those with Sufficient (51%) and (54.9%) respectively.

Table 2. Mean of score of Kessler Psychological Distress (K10) Scale for morning and night study students.

		Morning study		**Night study**	
	Levels	**Frequency**	**Percent**	**Frequency**	**Percent**
Kessler Scale (K1	**Mild**	**30**	**58.8**	**35**	**68.6**
	Moderate	18	35.3	15	29.4
	Severe	3	5.9	1	2.0
	Total	**51**	**100.0**	**51**	**100.0**

<= 2.33 =Mild, 2.34 - 3.66 =Moderate, 3.67+ = Severe

Table 2 provides the overall mean of score of Kessler Psychological Distress (K10) Scale for morning and night study students. It shows that the overall mean of score of Psychological Distress is mild level (58.8%) for morning students and (68.6%) have mild levels for night study students.

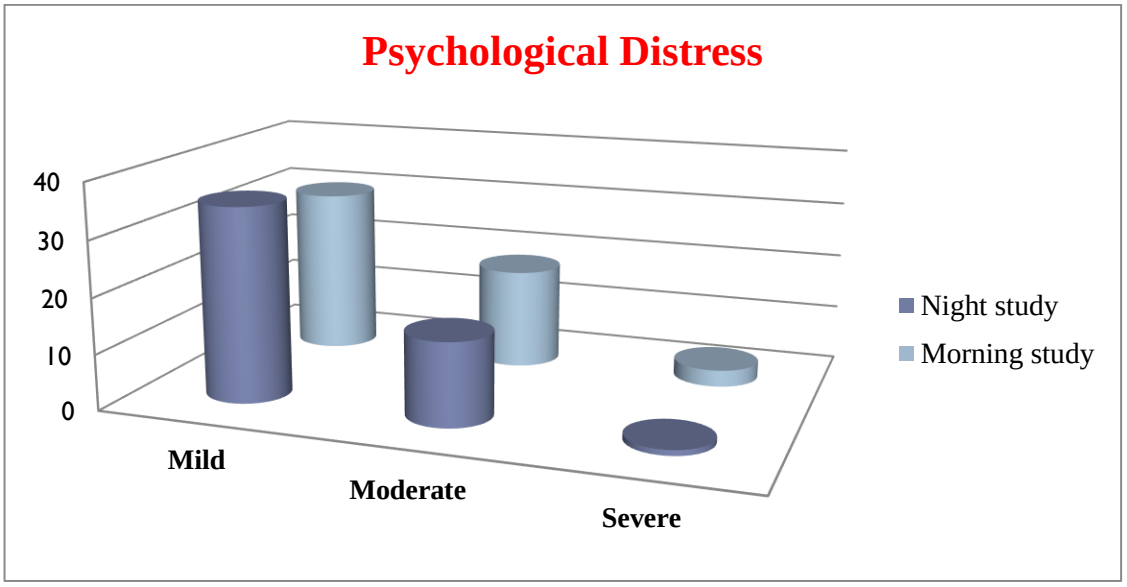

Figure 1. Show the overall mean of score of Kessler Psychological Distress (K10) Scale for morning and night study students.

Table 3. Descriptive statistics and assessment of Kessler Psychological Distress Scale for the study subjects.

Items		None of	A littl time	Some of	Most of	All of t	MS	Asses.
1. How often did you feel tired out for no good reason	**Freq.**	19	29	29	19	6	2.64	Moderate
	%	18.6	28.4	28.4	18.6	5.9		
2. How often did you feel nervous?	**Freq.**	15	25	35	15	12	2.84	Moderate
	%	14.7	24.5	34.3	14.7	11.8		
3. How often did you feel so nervous that nothing cou	**Freq.**	42	31	17	5	7	2.05	**Mild**
you down?	**%**	41.2	30.4	16.7	4.9	6.9		
4. How often did you feel hopeless?	**Freq.**	58	23	12	4	5	1.77	**Mild**
	%	56.9	22.5	11.8	3.9	4.9		
5. How often did you feel restless or fidgety?	**Freq.**	24	34	26	11	7	2.44	Moderate
	%	23.5	33.3	25.5	10.8	6.9		
6. How often did you feel so restless you could not sit	**Freq.**	42	23	26	6	5	2.10	**Mild**
	%	41.2	22.5	25.5	5.9	4.9		
7. How often did you feel depressed?	**Freq.**	39	17	29	11	6	2.29	**Mild**
	%	38.2	16.7	28.4	10.8	5.9		
8 .How often did you feel that everything was an effor	**Freq.**	21	26	34	9	12	2.65	Moderate
	%	20.6	25.5	33.3	8.8	11.8		
9. How often did you feel so sad that nothing could ch	**Freq.**	40	28	21	9	4	2.10	**Mild**
up?	**%**	39.2	27.5	20.6	8.8	3.9		
10. How often did you feel worthless?	**Freq.**	86	9	6	0	1	1.24	**Mild**
	%	84.3	8.8	5.9	**0**	1.0		

MS: Mean of Scores : Mild : MS = 1-2.33 ; Moderate : MS = 2.34-3.66 ; Good : MS = >3.66

Table 3 elucidates the descriptive statistics and assessment of Kessler Psychological Distress Scale for the study subjects. This table shows the assessment and mean of scores of K10 for the study subjects, it reveals that the assessment of the majority items was (mild) for items numbered (3, 4, 6, 7, 9 and 10), while it is considered (moderate) for the item numbered (1, 2, 5 and 8). This assessment is based on the statistical scoring system that indicated total mean of scores between (1-2.33) as (mild); and those between (2.34-3.66) as (moderate), those with scores more than (3.66) as (severe).

Table 4. Mean Differences among Kessler Psychological Distress (K10) Scale and Type of study and collage type.

	Type of study	**Mean**	**N**	**Std. Deviation**
	Morning study	1.37	51	0.561
	Night study	1.44	51	0.577
Kessler Psychological	**Total**	1.40	102	0.567
(K10) Scale	**Collage type**	**Mean**	**N**	**Std. Deviation**
	Scientific	1.38	51	0.599
	Humanistic	1.43	51	0.539
	Total	1.40	102	0.567

Table 4 reveals that there is no a highly significant difference in mean of score for night and morning study and scientific and humanistic collage.

Table 5. Relationships between Kessler Psychological Distress (K10) Scale and Subjects' demographic data.

Items	**Mean**	**Chi-Square**	**DF**	**Sig.**
Age	1.30	2.134	6	0.907
Sex	1.33	2.123	2	**0.034***
Marital status	1.24	0.209	2	0.901
Residency area	1.18	0.113	2	0.945
Collage type	1.50	2.869	2	0.238
Type of study	1.49	0.618	2	0.734
Stage	2.50	1.405	6	0.966
Monthly income	1.54	4.879	4	**0.030***

*** Significant at P<0.05 , df: degree of freedom**

Table 5 sheds light on the relationship between Kessler Psychological Distress (K10) Scale overall scores and participants ' demographic data. It indicates that there is no significant relationship between Kessler Psychological Distress (K10) Scale and demographic data at (P>0.05). Except sex at (P=0.034) and monthly income at (P=0.030)

Discussion

The results of table (1) shows the statistical distribution of the study subjects based on socio-demographic data, and it describes that the samples' subgroup has the highest percentage of: participants ages were (<= 25) years for both night study (60.8%) and morning study (96.1%), and (54.9%) were female in the night study and (78.4%) female in the morning study. Those who were enrolling in forth stage (45.1%) in the night study, and (35.3%) in second stage in the morning study, those who are single (60.8%) in the night study and (90.2%) in the morning study; and those who lived in the urban area (78.4%) in the night study and (84.3%) in the morning study and those who are in the scientific collage (58.8%) in the night study and (52.9%) are in the Humanistic collage for morning study and those with Sufficient (51%) and (54.9%) respectively.

Regarding age, the current result recorded a high percentage of students age (<= 25) years, and this is because most students join colleges at 18 years old, and study four stages until 25 years or less, and considering that all the researchers of this study are women, this factor may have contributed to the majority of the sample consisting of female participants. Also, in regarding to the subjects Residence, the results show that was (78.4% and 84.3) Urban. This study is agreeing with Zan and Khudhair [15] which was found that the majority of the study sample (86.7%) are from urban residence.

With regard to monthly income, different results have been obtained by Bayram and Bilgel [16] who recorded that (64.3%) of the students families' economic situations were moderate.

Table 2 shows that the overall rating of the Kessler Psychological Distress Scale was mild among university students. These results are inconsistent with Faraj's M. [17] study, which found that students experience moderate to mild levels of psychological distress associated with COVID-19, regardless of sociodemographic characteristics.

The table (4) show there is no significant difference between humanistic and scientific student level of psychological distress and this results agree with [18] who study Mental Health in Medical Students a Case Control Study Using the 60 Item General Health Questionnaire and find there is no differences between medical and non-medical student, while Leahy et al. [19] who examining distress among 955 students at an Australian university compared distress across disciplines, and found that psychology and medical students had similarly high levels of psychological distress, while psychological distress was slightly higher among law and engineering students.

The study found that night study students have a higher level of psychological distress than those in the day study this may result from most of night students had working during study and also disturbance in sleeping pattern , this result a ling with Lund et al. [20] who study Sleep Patterns and Predictors of Disturbed Sleep in a Large Population of College Students found that hat irregular sleep patterns and insufficient sleep among college students are associated with increased psychological distress. And also Beiter et al. [21] found the prevalence of issues like depression, anxiety, and stress among college students, with these phenomena linked to academic pressures and multiple responsibilities such as work and marriage.

Discussion This study aimed to explore the relationships between the Kessler Psychological Distress (K10) Scale and various demographic factors. Table (5) shows a statistically significant relationship exists between sex and psychological distress, indicating that gender differences may influence levels of distress. Research supports that women often report higher distress levels due to societal and biological factors, as noted in studies like Kessler et al. [22]. And also these findings align with those of Nerdrum et al. [23], who reported that sex, marital status and father's educational level have similarly been associated with the degree of psychological distress among Norwegian university students.

This study find monthly income significantly affects psychological distress levels. These findings align with Evans et al. [24], who emphasize the link between socioeconomic status and mental health. Larcombe and Fethers [25] found that financial stress has also been identified as a risk factor for depression symptoms among Australian students. Research by Andrews and Wilding [26] further highlights the impact of financial difficulties on university students' psychological distress, with more than 20% of students reporting a major financial crisis or going without food or essential travel through lack of money.

Conclusion

1. A mild level of psychological distress was found among Kufa university students for both night and day study and humanistic and scientific colleges.
2. Most of university students are single.
3. The night study students exhibited a higher level of psychological distress than day study students.
4. The students in the humanistic collages had a higher level of psychological distress than scientific colleges students.

Recommendations

1. Conducting more studies about students' psychological distress with a larger sample.
2. It is recommended to activate the sessions of educational guidance and support to deal with the problems and difficulties that may increase students' psychological distress.

Achieving further studies about the effectiveness of educational programs in relieving psychological distress among students.

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