
MENTAL HEALTH DIFFICULTIES, COPING MECHANISMS AND SUPPORT SYSTEMS AMONG IN SCHOOL ADOLESCENTS IN ILORIN WEST LOCAL GOVERNMENT AREA, ILORIN KWARA STATE

BY

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Abstract

Although adolescents are highly vulnerable to mental health challenges, they receive little attention, especially in developing countries. The study was on mental health difficulties faced by adolescents in three senior secondary schools in Ilorin West Local Government Area, Ilorin, Kwara State, their coping strategies and support systems. The study is a descriptive cross-sectional study using multi stage sampling to select 274 participants for the study. More than half of the respondents 57.09% are familiar with different mental health condition. The survey also shows a higher female participation rate 60.45% compared to males 39.55%. Majority 72.01% of students feel overworked due to academic demands, and despite completing assignments or homework within deadlines, they may experience increased stress. The data reveals that 47.01% of students use music as a coping mechanism for anxiety and only 1% of respondents have sought professional help. The p value of 1% ($0.01 < 0.05$) of the data analysis on mental health clearly shows that the respondents have different experiences and views about their mental health. The p value of 0.9 in coping strategy is such a small quantity that it indicates that the differences between the coping strategies are statistically significant. The analysis of four section datasets reveals significant variability 0.01 in respondent characteristics, suggesting that demographic factors play a crucial role in shaping opinions and experiences. Mental health data suggest that respondents have very different mental health experiences, which could be due to personal, environmental, or situational factors. Coping strategies data shows that there is no uniform approach to coping with mental health challenges, and individuals may adopt different strategies based on their personal circumstances or preferences. This indicates a need for personalized mental health interventions that cater to the diverse coping mechanisms employed by different individuals.

Introduction

Adolescence is a stage in life cycle between 11 and 19 years of age characterized by increasing independence from adult controls, rapidly occurring physical and psychological changes, exploration of social issues and concerns, increased focus on activities with a peer group and establishment of a basic self-identity (Hurlock, 2001). It is a stressful developmental period filled with major changes in physical maturity and sexuality, cognitive process, emotional feelings and relationship with others. It is a phase of life marked by special attributes like rapid physical, psychological, cognitive and behavioral changes and developments, including urge to experiments, attainment of sexual maturity, development of adult identity, and transition from socio-economic dependence to relative independence. Globally, 10–20% of adolescent's experience mental health disorders (Wasselhoeft, *et al.*, 2013). Anxiety and depression is among the leading causes of illness and disability, particularly among adolescent girls (World Health Organization, 2018). Among school-going adolescents, the school environment could potentially contribute to mental health promotion and prevention, or adversely affect the mental health and wellbeing of students (Das *et al.*, 2016; Aldridge & McChesney 2018). Behaviours typical of the school and classroom settings such as bullying, teasing, difficulty adjusting to rules, poor relationship with teachers and peers, academic pressure, examination phobia, unhealthy competitions, peer pressure, peer victimization, peer marginalization and repeated *oppression* (Williams and Littlefield, 2018; Deb *et al.*, 2015) can put adolescents on edge. The consequence is inappropriate behaviours including rebellion against authority, use of alcohol, tobacco and illicit drugs, and risky

sexual behaviours (World Health Organization 2018). Aside triggering mental disorders, these behaviours can lead to teenage pregnancy, sexually transmitted infections, low educational achievement, and even school dropout (Das *et al.*, 2016).

Despite the role of optimum mental health on the overall quality of life, community, family and school set-ups are often not enabling enough to promote the social, emotional, psychological skills and lifestyle habits of adolescents (World Health Organization, 2019). Largely, mental health is on the periphery of health policy and developmental agenda as strategies to promote enabling and nurturing environments for optimal mental health is still lacking. This is evident by the scarcity of epidemiological and large-scale data on the magnitude of adolescents' mental health problems, and coping strategies. Stigmatization of mental illness, coupled with lack of innovative psychosocial interventions and counselling therapy, as well as limited human and technical capacity to deliver mental health services is contributing to the hesitancy of patients in seeking help (World Health Organization, 2019).

Research Questions

- What are the mental health difficulties among in-school adolescents in Ilorin west local government Kwara state?
- What are the coping strategies towards the mental health difficulties among in-school adolescents in Ilorin west local government Kwara state?
- What are the mechanisms towards the mental health difficulties among in-school adolescents in Ilorin west local government Kwara state?

General Objective

The main objective of this study work is to determine the adverse effects of mental health difficulties, coping mechanisms and sources of support systems among in-school adolescents in Ilorin West Local Government Ilorin, Kwara state.

Specific Objective

- To determine the concept of mental health as expressed by in-school adolescents in Ilorin West Local Government Area, Kwara state.
- To determine the academic challenges as expressed by in-school adolescents in Ilorin West Local Government Area, Kwara state.
- To enumerate the strategies for coping with academic challenges expressed by in-school adolescents in Ilorin West Local Government Area, Kwara state.

Research hypotheses

H₀₁: The mental health difficulties do not significantly impact on the academic challenges expressed by in-school adolescents in Ilorin West Local Government Area Ilorin, Kwara state.

H_{a1}: The mental health difficulties significantly impact on the academic challenges expressed by in-school adolescents in Ilorin West Local Government Area Ilorin, Kwara state.

H₀₂: The strategies for coping do not significantly impact with academic challenges expressed by in-school adolescents in Ilorin West Local Government Area Ilorin, Kwara state.

H_{a2}: The strategies for coping significantly impact with academic challenges expressed by in-school adolescents in Ilorin west local government Ilorin, Kwara state.

Methodology

The descriptive survey research design was used for the study to examine the mental health difficulties, coping mechanisms and support systems among in school adolescents in Ilorin west local government area Ilorin, Kwara state. The city of Ilorin is the largest urban centre and capital of Kwara State in North Central Nigeria. It lies on latitude 8 °30'N and longitude 4°35' E. It has an elevation of 320metres above the sea level, and operates on the WAT time zone (UTC 1Hour). The people of the state are mainly civil servants, farmers, traders, artisans and organized private sectors. The major religions in Ilorin are Islam and Christianity, Yoruba is the main language spoken by the people, whereas minority ethnic groups are Hausa, Igbo, Fulani and Nupe. The population of this study consisted of all adolescents' students in government secondary school in Ilorin west, majorly SS2 and SS3 irrespective of their gender. The minimum sample size for the study in the selected Government secondary schools in Ilorin west Local Government Area was determined using the Fischer's formula for sample size determination where the population is greater than 10,000 stated below:

$$n = \frac{Z^2PQ}{d^2}$$

Where; n = the desired sample size when the population is greater than 10,000
 Z = the standard normal deviate, set at 1.96 which corresponds to 95% confidence Interval
 P = percentage of student experiencing mental health disorder 20% (Wasselhoft, *et al.*, 2013)
 q = the complimentary probability of P which is $(1 - p)$ that is, percentage of student in that condition = $1 - 0.20 = 0.8$
 d = degree of accuracy desired, usually set at 5% or 0.05

Substituting, we have

$$n = \frac{(1.96)^2 \times (0.20) \times (0.80)}{(0.05)^2}$$
$$n = 246$$

The percentage of student in the selected secondary schools in Ilorin west is less than 10,000, and estimated to be 1000, therefore to obtain the "finite sample size" for the study, the formula below is used.

$$n = \frac{n}{1 + (n/N)}$$
$$n = \frac{246}{1 + (246/1000)}$$
$$n = 247$$

To compensate for non-response

$$nf = n / e$$

Where, nf = desired sample size
 n = the minimum required sample size
 e = expected response rate set at 90% or 0.9

Substituting, therefore
= $247 / 0.9$
= 274.44
= 274

Therefore, to increase the precision and accuracy of this study, this sample size will be increased to 274

Multistage sampling technique was used for the selection of the respondents in this study. The selection was carried out in stages as follows;

Stage 1: Ilorin west has 12 wards; simple random sampling techniques was used to select 3 wards from Ilorin west.

Stage 2: Simple random sampling was used to select 3 schools from each ward.

Stage 3: Systematic random sampling was used to select eligible participants from the selected schools using the list of secondary schools as the frame.

A questionnaire was used for the study. The questionnaire was developed using information obtained from relevant literature and previous studies. It was used to collect information on academic challenges and strategies for coping with the academic challenges in school. The questionnaire was constructed in the formal language (English language) for easy administration to the respondents. Permission to conduct the study was taken from the Vice Principal Academics of each school, the purpose of study was made known to the Vice Principal Academics and after permission, the researcher introduced herself to the participants and the major purpose of the study was explained to them. Thereafter, a self-administered questionnaire was used to collect data for the study. The questionnaire was written in English language. Confidentiality of the information obtained was assured and maintained throughout the study. After the approval to carry out this study was obtained from the department of Public Health Science Al-Hikmah, permission to carry out this study was obtained from each school. The purpose of this study and further information regarding this study was explained to the participants. Thereafter, questionnaire was administered to the participants.

Results

Out of 274 questionnaires administered among the high school students, it was 268 that were returned, the remaining 6 questionnaires were not response. Therefore, the result was only for 268 responses. Data analysis was performed by simple cross-tabulation analysis to test variables such as demographic data, mental health status, coping strategy and support system

Table 1: Respondents on Socio-Demographic Data

S/N	Demographic	Respondent	Number of Respondent	Percentage (%)
1	AGE	Under 118	262	97.77
		18-24	6	2.23
		25-34		
2	GENDER	Male	106	39.55
		Female	162	60.45
3.	LEVEL OF EDUCATION	High School	268	100
		Undergraduate	0	
		Graduate	0	
4	TRIBE	Yoruba	257	95.89
		Igbo	3	1.12
		Hausa	3	1.12
		Others	5	1.86

5.	FAMILY TYPE	Single Parent	51	19.03
		Nuclear Family	172	64.18
		Extended Family	24	8.95
		Polygamy Family	20	7.46

Table 2: Respondents on Mental Health

S/N	Mental Health	Respondent	No of Respondent	Percentage (%)
1	How familiar with the different mental condition: depression, Anxiety, bipolar disorder.	Yes	153	57.09
		No	115	42.91
2.	Are you Over work with school activities?	Yes	193	72.01
		No	75	27.99
3.	Are you able to complete assignment or home work within deadlines?	Yes	195	72.76
		No	73	27.24
4.	How often do you feel stress out at school?	Never	113	42.16
		Rarely	20	7.46
		Sometimes	140	52.23
		Often	56	20.89
		Very Often	20	7.46
5.	How challenging in making friend in school	Very Easy	113	42.16
		Bit easy	80	29.85
		Difficult	50	18.62
		Extremely difficult	25	9.38
6.	Do you have comfort in talking about mental health to teachers or parent.	Yes	196	73.13
		No	72	26.86
7	Missing Classes	Never	138	51.49
		Rarely	85	31.71
		Sometime	45	16.79
8.	Having Trouble Paying attention	Yes	208	77.61
		No	60	22.38
9.	i. Do you feel distrustful of others?	Yes -78	No-198	Y=73.9 N-26.1
	ii. Having a strange thought.	Yes- 206	No-62	Y-76.9 N-23.1
	iii. Hearing voices.	Yes- 255	No- 13	Y- 95.1 N-4.9

	iv. Have to do the same way or keep repeating them.	Yes- 98	No-170	Y-63.4	N-36.6
10.	Having problem in school with; Behavior Grade Skipping classes	Yes- 20 Yes- 35 Yes- 40	No-248 No- 233 No-228	Y-7.5 92.5 Y-13.1 86.9 Y-14.9 85.1	N N- N- N-
11.	Worry about; Eating Sleeping Weight	Yes- 158 Yes- 78 Yes- 35	No-110 No-190 No-233	Y-59 Y-29.1 70.9 Y-13.1 86.9	N-41 N- N- N-
12.	Having trouble in keeping friends.	Yes No	20 248	Y=7.5 NO= 92.5	

Table 3: Respondents on coping strategy

S/N	QUESTION	Respondent	No of Respondent	Percentage (%)
1.	Activities that help cope with anxiety	Exercise Meditation Music Drawing	78 54 127 9	29.10 20.14 47.01 3.35
2.	Level of comfort in discussing about personal anxiety to teachers or councilor	Very comfort Somewhat Comfort Neutral Uncomfortable Very Uncomfortable	57 93 63 55 0	21.26 34.70 23.50 20.52 0
3.	Level of comfort is discussing mental health with parents.	Very comfort Somewhat Comfort Neutral Uncomfortable Very Uncomfortable	210 38 10 0 10	78.35 14.18 3.73 0 3.73
4.	Anxiety Management.	Never Occasionally Most Time All time	85 40 132 11	31.71 14.92 49.25 4.10

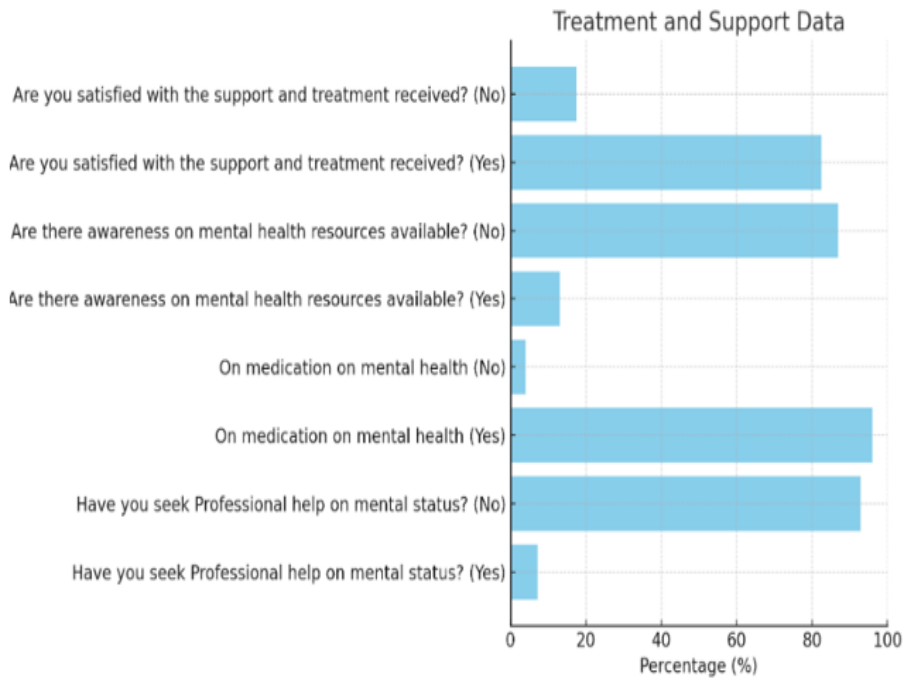


Figure 1: Respondents on treatments and support

Statistical analysis

The statistical analysis was carried out using Microsoft excel 2013 alongside with statistical tools merge with software package. In order to analyses the pretest or level of reliability of the questionnaire, the Cronbach's Alpha formula was introduced. The Cronbach's Alpha is a measure of internal consistency, indicating how well a set of items measures a single one-dimensional latent construct. It is commonly used to assess the reliability of a questionnaire or test.

Cronbach's Alpha formula:

$$\alpha = \frac{N}{N - 1} \left(1 - \frac{\sum \text{Variance of Each Item}}{\text{Total Variance}} \right)$$

Where

- α: Cronbach's Alpha
- N= is the number of items (questions)

The summation of the variance of each item and total variance was evaluated using Microsoft excel 2013 calculating tools which shown in the table below.

Application of Chi-square Statistical Tool

Chi-square tests are used to determine if there is a significant association between two categorical variables. For analyzing questionnaire data in Excel, you can use the Chi-square test to see if the distribution of responses differs significantly from what would be expected by chance. The chi square can be calculated using the formula

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Where

O is the observed frequencies which indicate the value obtained from each response of the questionnaire
E: this is the number of expected frequencies. It can be obtained using the formula

$$E = \frac{(Row\ Total \times Column\ Total)}{Grand\ Total}$$

Where

Row Total is the number of total number of row from the excel analysis test and
Column total is the total number of response which is 330
Grand total is the summation of all the row value.

Determine the Degrees of Freedom

The degrees of freedom (df) for a Chi-square test is calculated as:
df= (Number of Rows-1) × (Number of Columns-1)

Calculate the p-value

To find the p-value, the Chi-square distribution with the calculated statistic and degrees of freedom was used. In Excel, for this analysis the **CHISQ.DIST** was used. The P value of every section of the questionnaire varied based on several factors.

Table 4: Variance, pretesting, expected frequency and chi-square on Demographic Data

	DEMOGRAPHY DATA						
	D1	D2	D3	D4	D5	GRAND TOTAL	
	262	106	268	257	51	944	
	6	162	0	3	173	344	
				3	24	27	
				5	20	25	
TOTAL RESPONDENT	268	268	268	268	268		
						1340	
VARIANCE	32768	1568	35912	32258	5183	1873	
Pretesting = 0.8							

			EXPECTED FREQUENCY				
	188.8	188.8	188.8	188.8	188.8		
	68.8	68.8	68.8	68.8	68.8		
	5.4	5.4	5.4	5.4	5.4		
	5	5	5	5	5		
			CHI-SQUARE				
	28.3	36.3	33.2	24.6	100.6	223.1	223.
	57.3	126.2	68.8	62.9	157.8	473.1	473.
				1.07	64.1	65.1	65.1
				0	45	45	90
						806.3	851.3
			p Value	1			

Table 5: Variance, pretesting, expected frequency and chi-square on Mental health status

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	g.total
	153	193	195	45	113	196	138	208	637	95	271	20	2264
	115	75	73	42	80	72	85	60	443	709	533	248	2535
				115	50		45						210
				43	25								68
				23									23
													5100
VARIANCE	722	6962	7442	4.5	544.5	7688	1404.5	10952	18818	2E+05	34322	25992	2E+06
Pretesting = 0.48													
					EXPECTED VALUES								GTOTAL
	118.971	118.971	118.971	119	118.97	119	118.97	118.97	479.44	356.9	356.913	118.97	2264
	133.2118	133.2118	133.2118	133.2	133.21	133.2	133.21	133.21	536.82	399.6	399.635	133.21	2535
				11.04	11.04		11.04						33.106
				3.573	3.573								7.1467
				0.104									0.1037
													4839.4
					CHI- SQAURE								
	9.733249	46.06414	48.58674	45.99	0.2997	49.87	3.0436	66.623	51.783	192.2	20.6802	82.333	617.21
	2.489783	25.43776	27.21574	62.45	21.256	28.13	17.449	40.236	16.398	239.5	44.5059	98.913	623.97
				979.5	137.58		104.54						1221.6
				435	128.48								563.5
				5054									5054.1
													8080.4
							p VALUE=	1					

Table 6: Variance, pretesting, expected frequency and chi-square on Coping Strategy

	Q1	Q2	Q3	Q4	G TOTAL
	78	57	210	85	430
	54	93	38	40	225
	127	63	10	132	332
	9	55	0	11	75
	0	0	10	0	10
					1072
Variance	2711.3	1131.8	7844.8	3001.3	30409.3
	T variance of each items			14689.2	
pretest = 0.7					
			Expected frequency		
	107.5	107.5	107.5	107.5	430
	56.25	56.25	56.25	56.25	225
	83	83	83	83	332
	18.75	18.75	18.75	18.75	75
	0	0	2.5	0	2.5
		0			
					1064.5
			CHI SQUARE		
	8.095349	23.723256	97.73255814	4.7093023	134.26047
	0.09	24.01	5.921111111	4.6944444	34.715556
	23.3253	4.8192771	64.20481928	28.927711	121.27711
	5.07	70.083333	18.75	3.2033333	97.106667
		0	22.5		22.5
					409.8598
		PVALUE	0.9		

Table 7: Variance, pretesting, expected frequency and chi-square on Treatment and Support

	Q1	Q2	Q3	Q4	
	19	257	35	221	532
	249	11	233	47	540
					1072

Variance	26450	30258	19602	15138	32
pretesting	1				2856.42
		Expecting Frequency			
	133	133	133	133	532
	135	135	135	135	540
					1072
		chi square			
	97.71429	115.609	72.21052632	58.22556	343.7594
	96.26667	113.8963	71.14074074	57.36296	338.6667
					682.4261
		p value	1		

Discussion

The survey primarily targets adolescents, with 97.77% of respondents under 18 years old. This age group is crucial as adolescence is a critical developmental period marked by numerous psychological and emotional changes. The survey also shows a higher female participation rate (60.45%) compared to males (39.55%), suggesting the need for gender-specific interventions. Family structure also plays a significant role in mental health, with most respondents coming from nuclear families (64.18%). Mental health interventions should consider these differences and provide tailored support to address the unique needs of students from diverse family structures.

The study reveals that a significant number of adolescents in school face mental health challenges, such as academic pressure, peer relationships, and identity formation, including school-related stress, social challenges, and difficulty making friends. The study agreed with Cortina, Sodha, Fazel & Ramchandani (2012) who found that high prevalence of mental health problems has been reported among younger populations in sub-Saharan Africa. Majority 72.01 of students feel overworked due to academic demands, and despite completing assignments or homework within deadlines, they may experience increased stress. This finding corroborates with Muller (2004) found that causes of academic challenges include too much of academic work load, lack of extra curriculum activities, too much of home assignments to cover, inadequate of school facilities/instructional materials and inadequate time to study. Similarly, Onukwufor and Izuchi (2017) found that following academic challenges are experienced among senior secondary school students fear of examinations among students, having many subjects to learn in a day, lack of financial support for educational needs and poor time Management among others. Physical health concerns, such as eating, sleeping, and weight are also prevalent and often linked to mental health issues. Also, school-related problems, such as behavior issues, grade issues, and skipping classes, can impact students' overall well-being and academic success.

Making friends is a significant challenge for many students, and schools should foster environments that encourage social interaction and support the development of social skills. Class attendance and attention are also critical, with a notable minority missing classes. Early detection and intervention programs are crucial, and schools should provide mental health screenings and access to mental health professionals. Such concerns could thus present a barrier to young people's engagement with preventive interventions led by trained school staff or implemented within a school setting. Therefore, reviews of evaluations of existing programmes have highlighted the important role that a

programme component focusing on promoting a supportive school environment or ethos can have in maximising engagement with and the effectiveness of school-based prevention and early intervention programmes.

To address these challenges, a multi-faceted approach is needed, including enhanced mental health education, stress management programs, social skills development, supportive environments, early intervention, holistic health approaches, and tailored support. The data reveals that 47.01% of students use music as a coping mechanism for anxiety, with benefits such as stress reduction and mood improvement. Physical activity, meditation, and drawing are also popular coping mechanisms. Comfort in discussing anxiety with teachers or counselors varies, indicating the need for more approachable and trained mental health professionals. Parents are highly comfortable discussing mental health with their children, suggesting strong familial support. Previous qualitative studies have similarly highlighted the importance, from young people's perspectives, of familial support in protecting against adversity or promoting recovery from mental health issues (e.g., Las Hayas *et al.*, 2016). The finding agreed with Masten (2021) who found that close caregiver child relationship have frequently been identified as a key family-level protective factor for young people in the face of adversity. Anxiety management is most common, with 74.25% of respondents managing their anxiety most of the time. However, some students struggle to manage their anxiety effectively, requiring targeted interventions. This equally agreed with Kempf (2011) who found from the study that the major academic coping strategies identified by the respondents include; integrating stress management lessons in guidance and counseling sessions, teaching assertiveness so that the adolescent will have high self-esteem, communicating with parents of concerned adolescents on how they could intervene and through anxiety prevention training programme among others which was also found to have influence on gender.

Professional help is low, with only 7.1% seeking professional help. The latter reflects Ungar *et al.*, (2018) finding that adolescents with high resilience and low risk describe less need for professional support in general, potentially due to the social support that they already have. A holistic approach that includes medication, therapy, and lifestyle changes is essential. High awareness of available mental health resources is low, with only 13.1% of respondents aware of available resources. Satisfaction with support is high, but improving accessibility and awareness of these resources is necessary to reach more students in need.

Conclusion

The analysis of four section datasets reveals significant variability in respondent characteristics, suggesting that demographic factors play a crucial role in shaping opinions and experiences. Demographic factors such as age, gender, or socioeconomic status significantly influence how people respond to surveys. Mental health data also reveals considerable diversity in how respondents experience and perceive mental health issues. High variances and Chi-square values for certain questions suggest that respondents have very different mental health experiences, which could be due to personal, environmental, or situational factors. Coping strategies data shows that there is no uniform approach to coping with mental health challenges, and individuals may adopt different strategies based on their personal circumstances or preferences. This indicates a need for personalized mental health interventions that cater to the diverse coping mechanisms employed by different individuals.

The findings suggest that mental health interventions should be tailored to address the specific needs and experiences of different demographic groups, considering the diverse ways in which individuals experience and cope with mental health challenges. There is no statistically significant difference across quarters, suggesting uniformity across time periods. Chi-square values vary across the quarters, but these differences are not significant enough to reject the null hypothesis. Implications for treatment and support include that treatment and support levels have been consistent throughout the year, suggesting that processes, policies, or interventions in place are stable and do not fluctuate significantly over time. Future considerations include re-evaluating the data to detect any seasonal or quarterly variations or to consider future trends or context changes.

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