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Adjustment problem and associated factors among first-year undergraduates at Wollo University, Ethiopia

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Background: Adjustment problems are characterized by a maladaptive emotional response to a stressful event among fresh first-year students. In Ethiopia, there is limited evidence about the adjustment problem and its determinant factors among undergraduates. Therefore, the present study aimed to assess the prevalence of adjustment problems and associated factors among first-year undergraduates at Wollo University, Dessie, Ethiopia.

Methods: An institutional-based cross-sectional study design was conducted from February 1–20, 2020. A systematic random sampling technique was employed to select the study participants. The resultant adjustment problem was assessed using the student adjustment to college questionnaire (SACQ). Data were analyzed using SPSS version 26. Logistic regression analysis was performed, and variables with a p -value of <0.05 were taken as statistically significant with adjustment problems.

Results: The prevalence of adjustment problems among first-year undergraduates were found to be 41.4% (95% CI (35.8, 46.9)). Students whose hometowns were far (>901 km) from the university, monthly pocket money $\leq 1,000$ ETB, being away from family/home for the first time, and facing great difficulty living in a dormitory were significantly associated with adjustment problems among university students.

Conclusion: The prevalence of adjustment problems among Wollo University students was high and positively associated with students' hometowns being far (>901 km) from the university, having monthly pocket money, being away from family/home for the first time, and facing great difficulty in living in a dormitory. Therefore, establishing adjustment problem screening services on the campus and designing proper mental health intervention programs are recommended to tackle the problem.

KEYWORDS

adjustment problem, undergraduate students, Wollo University, students, Ethiopia

Background

University students are constantly exposed to psychosocial stressors throughout their academic careers, with a personal square exhibiting more emotional and intellectual sternness than previous educational levels. Students go through a lot of stress and hardships at this point, leading to various physical, social, and emotional issues (Saleem and Mahmood, 2013). The majority of first-year students have reported that moving to campus is the most difficult adjustment period of their lives (Aderi et al., 2013). According to the Diagnostic and Statistical Manual Fifth Edition Text Revision (DSM-V-TR) diagnostic criteria, adjustment disorders are characterized by a maladaptive emotional response to identifiable stressful events, such as the loss of a job, divorce, or failure in school (American Psychiatric Association, 2013). It is one of the few diagnostic entities in which an external stressful event is linked to the development of symptoms. For university students, the adjustment problem could be a multifaceted one, which may be classified into four different elements; academic adjustment (dealing with various educational demands of the university), social adjustment (interacting and forming relationships with peers and staff, and being involved in social activities on campus), personal-emotional adjustment (sense of psychological and physiological wellbeing, feeling of calm and stability of the students), and institutional attachment (feelings about the institution and satisfaction with attending a particular university) (Baker and Siryk, 1984a).

The symptom complex that develops may involve anxious or depressive affect or may present with a disturbance of conduct. By definition, the symptoms of adjustment disorder usually begin within 3 months of the stressor and must be remitted within 6 months after the stressor is gone (American Psychiatric Association, 2013). According to the different studies carried out so far, adjustment disorder is a prevalent condition (Gradus, 2017; Yaseen, 2017). It is estimated to have an incidence of between 5 and 20% in mental health services and about 50% in psychiatric consultation settings (American Psychiatric Association, 2013). In the university, up to 60% of fresh undergraduates leave campus without finishing their degrees; most students leave within the first 2 years (Porter, 1989). The first year seems to be the most critical period for university adaptation because of the large number of possible adjustment difficulties, such as little or no experience outside their family and a lack of coping mechanisms. These issues probably cause

impediments to personal, social, spiritual, and academic success (Mattanah et al., 2004).

Literature review

Research conducted among freshman university students in North Jordan, a Middle Eastern country, showed that the prevalence of adjustment problems was 50% (Aderi et al., 2013). In other studies reported from Asian countries, Malaysia, 26% (Abdullah et al., 2009), and India, 9% (Devi et al., 2016) of university students faced academic adjustment problems. Furthermore, based on a large nationally representative study, the prevalence of adjustment problems among university students in Ethiopia was: Debre-Berhan at 35.7% (Wubshet, 2019), Dilla University at 42.5% (Ababu et al., 2018), St. Paul Medical College at 37.8% (Gerensea et al., 2017), and Madawalabu at 30.1% (Esmael et al., 2018). According to Smith and Renk, many students find that the multiple stressors of university life, including making plans for the future, struggling with tests and assignments, handling teacher's demands and challenges, selecting a major, and becoming financially and emotionally independent, can be an overwhelming experience for many students (Dyson and Renk, 2006). Additionally, various related works of literature reported that low social support, being female, low educational status, being away from home, family, and friends, financial problems, social stressors related to communication barriers, difficulty in adjusting to university classes, new living arrangements, dormitory, the inability to get emotional support, difficulty making friends, heavy academic work-load, family dysfunction and instability, divorce, distance increased from university, facing great difficulty in managing time/study skills, general adjustment to new situations, disorientation and culture shock, health problems, lack of job opportunities, family problems, low counseling service, and different educational expectations multiple risk factors are contributing to university adjustment problems (Wilson, 1984; Gerdes and Mallinckrodt, 1994; Wang et al., 2006; Abdullah et al., 2009; Nyamayaro and Saravanan, 2013; Yussuf et al., 2013; Gerensea et al., 2017; Páramo Fernández et al., 2017; Esmael et al., 2018).

Although related research emphasizes the importance of identifying factors affecting university adjustment, there is still a scarcity of studies in low and middle-income countries, and there is no evidence of the adjustment problems and their associated factors among undergraduates in Ethiopia, particularly in the northeast part of Ethiopia. Therefore, the present study was intended to assess the prevalence and associated factors of adjustment problems among Wollo university first-year undergraduates in Ethiopia. The result of the study can be used as a reference for others who will conduct similar studies. The null hypothesis of the current study is that no statistically significant differences between adjustment

Abbreviations: AD, adjustment disorder; AOR, adjusted odds ratio; COR, crude odds ratio; DSM-V-TR, diagnostic and statistical manual fifth edition text revision, ETB, Ethiopia Birr; KM, kilometers; SACQ, student adaptation to College Questionnaire; SPSS, Statistical Package for the Social Sciences; WU, Wollo University.

problems and joining a campus among university students would be expected.

Methods

Study area and period

The study was conducted at the Wollo University Dessie campus, located in the South Wollo Amhara regional state, 401 km from the capital city, Addis Ababa, in the Northeast of Ethiopia. It was established in 2005. It has six colleges and two schools, totaling 64 departments. The total number of first-year undergraduates in the first semester of the 2019/2020 academic year was 2,315; among these, 961 were females, and 1,354 were males. Of the total students, 614 were natural science students, and 1,701 were social science students. The study was conducted from February 1–20, 2020.

Study design

An institutional-based cross-sectional study design was conducted.

Population

Source population

All fresh regular undergraduates at Wollo University Dessie's campus were enrolled in the study.

Study population

All regular first-year undergraduates at Wollo University Dessie's campus were available during data collection.

Inclusion criteria and exclusion criteria

All regular first-year undergraduates aged ≥ 18 years old and attending class at the time of data collection were included, while students who were seriously ill and unable to communicate were excluded from the study.

Sample size determination and sampling technique

Sample size determination

In this study, the sample size was determined using a single population proportion formula using the assumption of a prevalence (P) of adjustment disorder of 42 % from Dilla University with 95% CI (Ababu et al., 2018). After

using a correction formula and adding 10% of our sample size by considering the non-respondent rate, it became 355. Finally, we used proportional allocation to select the study subjects of natural and social science students. Of the study participants, 94 and 216 students were in natural science and social science, respectively.

Sampling technique

The total sample size was proportionally allocated based on the total number of students in each department (natural science and social science students); the sampling interval (K) was calculated by dividing the total number of students by the sample size for each. A systematic random sampling technique is used by every other K value of 2. The first sampling unit was chosen at random from each level's first interval of " K "; the frame of each stratum refers to a list of all study populations in each stratum organized by ID numbers.

Data collection instruments

Data were collected by using a structured self-administered questionnaire. It has different subparts (including sociodemographic status, student adaptation to the college questionnaire, and substance abuse assessment). We have used the Students Adaptation to College Questionnaire (SACQ) questionnaire to assess adjustment problems, which Baker and Siryk developed in 1999 (Baker and Siryk, 1999). It contains 67 questions used to assess various experiences of adjustment problems among university students. Each question has a five-point response scale (1: "Strongly disagree," 2: "Disagree," 3: "Neutral," 4: "Agree," 5: "Strongly agree"), which was used as the primary data collection instrument. It has scores from 67 to 335 and a cutoff point ≤ 201 scores for adjustment problems (Ababu et al., 2018). This yields sensitivity and a specificity of 72 and 80%, respectively (Baker and Siryk, 1999). The SACQ is a commonly used instrument in the study of college student adjustment and has been found to be a reliable and valid measure. The full-scale reliability scale is reported to range from 0.92 to 0.95. It is divided into four principal subscales. The subscale alpha's have been determined as 0.81–0.90 for the academic subscale, 0.83–0.91 for the social adjustment subscale, 0.77–0.86 for the personal-emotional subscale, and 0.85–0.91 for the attachment subscale. The convergent validity has been demonstrated through the statistically significant correlations that have been established between the subscales and a variety of relevant variables, such as grade point average, involvement in social activities, election to an academic honor society, and appeals for psychological services (Baker and Siryk, 1984b). In this study, the internal consistency of subscales was assessed as academic adjustment (24 items; Cronbach's alpha 0.83), social adjustment (19 items; alpha 0.80), personal, emotional

adjustment (14 items; alpha 0.83), and institutional attachment (eight items; alpha 0.78), with two additional items of general adjustment; overall adjustment has 67 items; its Cronbach's alpha in the current study was 0.86. A probable case of academic, social, personal, emotional, and institutional adjustment in this study is defined as a cutoff point less than or equal to the mean value of 67.36, 61.06, 43.67, and 22.40, respectively (Ababu et al., 2018). Sociodemographic information encompassed age, sex, ethnicity, religion, department, marital status, parental marital status, distance from home, and monthly pocket money. Academic demand-related and social factors (difficulty managing time and study skills, being away from family/home for the first time, living in the dormitory, health problems, difficulty adjusting to a university class) and substance-related factors were assessed with yes/no questions. The current substance users are those who use specified substances (such as chewing khat, drinking alcohol, and smoking cigarettes) within 3 months and every user (if the students use restricted substances even once in their lifetime).

Data collection procedure

A structured self-administered questionnaire was prepared in English and then translated into the local language, Amharic, and back-translated into English by an independent person to ensure its understandability and consistency. Three psychiatric nurses were recruited for data collection and one MSc in psychiatry for supervision. The principal investigator provided training to the supervisor and data collectors on the methods of data collection and the questionnaire details. Before involvement in the data collection, training was given for 2 days to data collectors by the investigator on how to use the questionnaire, ethical principles of confidentiality, data management, how to identify participants, and how to facilitate the referral process in the case of adverse events occurring during the data collection process. A pretest was conducted on 5% of the sample size at the Kombolcha campus before actual data collection for clarity of questionnaires, and the items of questions were modified accordingly. The collected data were reviewed and checked for completeness before data entry and inserted into a computer from a paper, then checked twice and processed in a timely manner.

Data analysis

The collected data were checked manually for completeness and cleaned and stored for consistency data entered in the computer using Epi-Data version 3.1. Then it was exported to Statistical Package for Social Science (SPSS), version 26 statistical software for analysis. The findings were used to display frequency, proportion, and other descriptive

analyses. Binary logistic regression was used to determine the association between different factors and the outcome variable. Finally, all independent variables with a p -value < 0.25 were entered in the final model (multivariable logistic regression) to identify independently associated factors for adjustment disorder. Hosmer and Lemeshow's goodness of fit test checked the goodness of the fitted model. The strength of the association was assessed using AORs with their corresponding CIs at 95%. Finally, the p -value < 0.05 was considered statistically significant.

Results

Sociodemographic characteristics of the study participants

A total of 307 participants were included in the study, yielding a response rate of 86%. Out of which, nine respondents have not answered all the questions appropriately; 11 returned questionnaires without responding to questions, and the remaining 28 did not return the questionnaires. The majority of the respondents, 243 (79.2%), were male, and 283 (92.2%) were single in marital status. The mean (SD) age of the participants was 19.21(± 1.27 years), with the minimum and maximum age being 18–25 years, respectively. The majority of the respondents, 218 (71%), 172 (56%), and 233 (75.9%), were social science students, Orthodox Christian followers, and Amhara in ethnicity, respectively. Relating to the participants' parental marital condition, the majority, 221 (72%) of the parents of the participants, were living together, and a substantial number of the participants, 170 (55.4%), came from a distance of about ≤ 450 km. The majority of 272 (88.6%) respondents earned monthly pocket money $\leq 1,000$ in Ethio birr (ETB). Regarding psychological and academic assistance/study counseling services, the majority of 255 (83.1%) and 236 (76.9%) never received psychological support and academic assistance/study counseling after they joined the university (Table 1).

Social, academic, and substance-related factors

Among the study participants, 98 (31.9%) had varying degrees of difficulty from being away from family/home for the first time, followed by staying in the dormitory, which was found to be 84 (27.3%). Also, reported difficulty managing time and study skills, having health problems, and difficulty adjusting to university class comprises 122 (39.7%), 136 (44.3%), and 105 (34.2%) difficulty reported respondents, respectively. Regarding substance use history, 124 (40.4%) had a history of substance abuse in their lifetime, and 67 (21.8%) of the respondents had

TABLE 1 Sociodemographic characteristics of Wollo University main campus regular first-year undergraduates, Northeast Ethiopia, Dessie, 2020 ($n = 307$).

Variables	Categories	Frequency	Percent (%)
Age	18–20	260	84.7
	21–25	47	15.3
Sex	Male	243	79.2
	Female	64	20.8
Marital status of students	Single	283	92.2
	Married	24	7.8
Department	Natural science	89	29.0
	Social science	218	71.0
Religion	Orthodox	172	56.0
	Muslim	92	30.0
	Protestant	35	11.4
	Others*	8	2.6
Ethnicity	Amhara	233	75.9
	Oromo	42	13.7
	Tigre	21	6.8
	Others**	11	3.6
Marital status of students family	Living together	221	72.0
	Separated	31	10.0
	Divorced	14	4.6
	One/two parents died	41	13.4
Distance participants home from the University	≤450	170	55.4
	451–900	120	39.1
	≥900	17	5.5
Monthly pocket money in Ethio birr (ETB)	≤1,000	272	88.6
	≥1,001	35	11.4
Psychological support	Never	255	83.1
	Sometimes	51	16.6
Academic counseling/assistance	Never	236	76.9
	Sometimes	71	23.1

*Catholic, Jehovah's **Gambella & Gurage.

a history of substance abuse within the past 3 months before data collection time. Among the users, 28 (9.1%), 32 (10.4%), and 7 (2.3%) were drinking alcohol, chewing khat, and smoking cigarettes, respectively (Table 2).

Prevalence of adjustment problems among respondents

In the current study, the overall prevalence of adjustment problems among first-year undergraduates was 41.4% (95% CI

TABLE 2 Social, academic, and substance-related factors of Wollo University main campus first-year regular undergraduates, Northeast Ethiopia, Dessie, 2020 ($n = 307$).

Variables	Categories	Frequency	Percent (%)
Away from family/home for the first time	No difficult	209	68.1
	Some difficult	66	21.5
	Great difficult	32	10.4
Living in dormitory	No difficult	216	70.4
	Some difficult	57	18.6
	Great difficult	34	11.1
Difficult to manage time and study skill	No difficult	185	60.3
	Some difficult	83	27.0
	Great difficult	39	12.7
Health problem	No difficult	171	55.7
	Some difficult	89	29.0
	Great difficult	47	15.3
Difficulty adjusting to a university class	No difficult	202	65.8
	Some difficult	73	23.8
	Great difficult	32	10.4
Lifetime substance use	Yes	124	40.4
	No	183	59.6
If yes,	Alcohol	60	19.5
	Khat	58	18.9
	Cigarette	6	2.0
Current substance use	Yes	67	21.8
	No	240	78.2
If yes,	Alcohol	28	9.1
	Khat	32	10.4
	Cigarette	7	2.3

(35.8, 46.9). In contrast, the subdomain types and magnitude of academic adjustment, social adjustment, personal, emotional adjustment, and institutional adjustment were 135 (44.0%), 169 (55.0%), 124 (40.4%), and 148 (48.2%), respectively (Table 3).

Factors associated with adjustment problems among participants

In this study, factors such as sex, marital status of respondents' family, distance from home to the university, monthly pocket money in Ethio birr (ETB), psychological support, lifetime substance use, current substance use, being away from family/home for the first time, living in a dormitory, difficulty managing time/study skills, and health problems were all associated with a P -value of <0.25 in bivariable analysis. From these, variables such as participants' distance from home from university > 900 km, earning $\leq 1,000$ ETB pocket money, being away from family/home for the first time, and living in the dormitory were significantly associated with adjustment problems in multivariable analysis.

TABLE 3 Prevalence of adjustment problems among regular first-year undergraduates at Wollo University main campus, Dessie, Northeast, Ethiopia, 2020 ($n = 307$).

Variable	Category	Frequency	Percentage (%)
Academic adjustment	Yes	135	44.0
	No	172	56.0
Social adjustment	Yes	169	55.0
	No	138	45.0
Personal and emotional adjustment	Yes	124	40.4
	No	183	59.6
Institutional adjustment	Yes	148	48.2
	No	159	51.8
Overall adjustment problem	Yes	127	41.4
	No	180	58.6

Students whose hometowns were far (>901 km) from the university were 3.35 times (AOR: 3.35, 95% CI: 1.14–9.88) more likely to develop adjustment problems compared with those who came from a distance of < 450 km. The odds of having an adjustment problem were 4.62 times higher than among students who earn monthly pocket money $\leq 1,000$ ETB compared to $\geq 1,000$ ETB (AOR: 4.62, 95% CI: 1.70–12.54). Likewise, facing great difficulty due to being away from family/home for the first time was associated with 5.42 times higher odds of adjustment problems in the study participants compared to students who had not faced difficulty (AOR: 3.32, 95% CI: 1.32–7.85). Finally, facing great difficulty living in a dormitory was significantly related to adjustment problems, around 5.42 times higher than those who had not faced difficulty (AOR: 5.42, 95% CI: 2.26–12.99) (Table 4).

Discussion

In general, this study demonstrated an improved understanding of adjustment phenomena among university students in Ethiopia. It has added to our knowledge of the factors that affect adjustment problems among university students. This study was conducted during the 2019/2020 academic year for freshmen regular students at Wollo University by selecting 307 representative samples from the natural and social departments. The aim was to evaluate the primary adjustment challenges of freshmen students at Wollo University. Even though the majority of first-year students experienced a variety of psychological and environmental difficulties, tools used to measure adjustment difficulties in this study revealed that the prevalence of adjustment problems among first-year undergraduates at Wollo University was 41.4% (95% CI (35.8, 46.9)). The social adjustment problem appears to demonstrate relative significance among the adjustment problem domains examined in this study compared to academic, institutional, and

personal psychological challenges. A comparison of adjustment problem scores revealed that $\sim 55\%$ of respondents experienced a higher level of social adjustment problems. This is comparable to the study conducted at Jimma University (Jemal, 2011). This finding on the prevalence of adjustment problems is in line with the studies conducted at Dilla University, 42.5% (Ababu et al., 2018), and St. Paul Medical College, Ethiopia, 37.8% (Gerensea et al., 2017). In contrast, our result was higher than the prevalence report among students in Arabian Gulf University, Bahrain 34.1% (Alnakhli, 2018), Malaysian medical students 10% (Nyamayaro and Saravanan, 2013), Indian (35.5%), Madawalabu 30.1% (Esmael et al., 2018), Malaysia 26% (Abdullah et al., 2009), and Narayana Nursing Institution at Nellore district in India 9% (Devi et al., 2016). This difference could result from a comparatively less conducive living and learning environment and fewer available psychological and academic counseling services in our study settings. Moreover, the possible reasons for the observed variation might be the difference in methodological designs and the sociocultural variation of the students. Furthermore, the sample size was 135, and the tool difference was Kessler Psychological Distress Scale (K10); this was used to assess the extent of stress in Bahrain, which could be the reason for their difference (Alnakhli, 2018).

However, the finding of this study is also lower than that of a survey at Jimma University, 50% (Jemal, 2011), and North Jordan, 50% (Aderi et al., 2013). Time variation, sampling technique, sample size differences, and sociocultural issues might be the possible causes of the variability. The variation might be due to the difference in the sample size technique in which the previous study used a multi-stage sampling procedure among 214 students at Jimma University (Jemal, 2011), while in the current study, we used systematic random sampling among 307 participants. The other reason might be the difference in study participants' sociodemographic and economic characteristics.

Regarding factors associated with adjustment problems, in the current study, those students whose hometowns were far (>901 km) from the university were 3.35 times more likely to develop adjustment problems than those from a distance of ≤ 450 km. This finding is supported by the results of previous studies from Debre-Birhan University (Wubshet, 2019). This might be due to increased distance; students may feel more detached from family support and unable to get emotional support for the first time; this causes feelings of loneliness and isolation.

The odds of having an adjustment problem were 4.62 times higher than among students who earn monthly pocket money $\leq 1,000$ ETB compared to $\geq 1,000$ ETB. The result is supported by research conducted in Filipino colleges (Alipio, 2020). Students who get low pocket money are more likely to develop adjustment problems than those who receive higher pocket money. It is known that most of the literature reports that having financial problems (struggles) leads students to

TABLE 4 Bivariate and multivariable logistic regression analysis results of adjustment problems among Wollo University main campus regular first-year undergraduates, Northeast Ethiopia, Dessie, 2020 ($n = 307$).

Variables	Category	Adjustment proble		COR (95%C.I)	AOR (95%C.I)	P-values
		Yes (n)	No (n)			
Sex	Female	31 (48.4%)	33 (51.6%)	1.44 (0.82, 2.50)	1.39 (0.71, 2.76)	0.337
	Male	96 (39.5%)	147 (60.5%)	1	1	
Marital status of respondents' family	Separated	15 (48.4%)	16 (51.6%)	1.34 (0.63, 2.84)	0.91 (0.38, 2.15)	0.823
	Divorced	10 (71.4%)	4 (28.6%)	3.57 (1.08, 11.74)	3.06 (0.86, 10.87)	
	One/two parents died	11 (26.8%)	30 (73.2%)	0.52 (0.25, 1.09)	0.69 (0.31, 1.54)	
	Living together	91 (41.2%)	130 (58.8%)	1	1	
Distance participants home from the University	>900 km	11 (64.7%)	6 (35.3%)	2.82 (0.99, 7.98)	3.35 (1.14, 9.88)	0.029*
	451–900 km	49 (40.8%)	71 (59.2%)	1.06 (0.66, 1.80)	1.66 (0.97, 2.86)	
	<450 km	67 (39.4%)	103 (60.6%)	1	1	
Monthly pocket money in Ethio birr (ETB)	≤1,000	121 (44.5%)	151 (55.5%)	3.87 (1.55, 9.63)	4.62 (1.70, 12.54)	0.003*
Psychological support	Never	102 (39.8%)	154 (60.2%)	0.69 (0.37, 1.26)	0.71 (0.35, 1.42)	0.329
	Sometimes	25 (49.0%)	26 (51.0%)	1	1	
Lifetime substance use	Yes	57 (54.0%)	67 (46.0%)	1.37 (0.86, 2.18)	1.01 (0.52, 1.98)	0.985
	No	70 (38.3%)	113 (61.7%)	1	1	
Current substance use	Yes	34 (50.7%)	33 (49.3%)	1.63 (0.94, 2.81)	1.80 (0.99, 3.27)	0.054
	No	93 (38.8%)	147 (61.3%)	1	1	
Away from family/home for 1st time	Great difficult	23 (71.9%)	9 (28.1%)	4.20 (1.85, 9.54)	3.22 (1.32, 7.85)	0.010*
	Some difficult	25 (37.9%)	41 (62.1%)	1.01 (0.56, 1.77)	0.65 (0.28, 1.49)	
	No difficult	79 (37.8%)	130 (62.2%)	1	1	
Living in dormitory	Great difficult	25 (26.5%)	9 (73.5%)	5.22 (2.32, 11.76)	5.42 (2.26, 12.99)	<0.001*
	Some difficult	27 (47.4%)	30 (52.6%)	1.69 (0.94, 3.05)	2.03 (0.87, 4.74)	
	No difficult	75 (34.7%)	141 (65.3%)	1	1	
Difficult to manage time and study skill	Great difficult	23 (59.0%)	16 (41.0%)	2.25 (1.12, 4.56)	1.24 (0.52, 2.94)	0.624
	Some difficult	32 (38.6%)	51 (61.4%)	0.98 (0.58, 1.67)	0.68 (0.36, 1.31)	
	No difficult	72 (38.9%)	113 (61.1%)	1	1	
Health problem	Great difficult	31 (66.0%)	16 (34.0%)	3.24 (1.64, 6.38)	1.76 (0.81, 3.81)	0.153
	Some difficult	32 (36.0%)	57 (64.0%)	0.94 (0.55, 1.59)	0.74 (0.36, 1.53)	
	No difficult	64 (37.4%)	107 (62.6%)	1	1	

*Statistically significant at P -value < 0.05, COR, crude odds ratio; AOR, adjusted odds ratio, 1 = reference category, Hosmer Lemeshow goodness-of-fit 0.63, and Maximum VIF = 1.80.

develop adjustment disorders and stress. Additionally, on average, students with low pocket money have to worry about where they will get necessary materials for educational or recreational purposes.

Likewise, facing great difficulty due to being away from family/home (homesickness) for the first time was associated with 3.32 times higher odds of adjustment problems in the study participants compared to those who were not faced with difficulty. This is consistent with studies conducted by universities in Dilla (Ababu et al., 2018), Madawalabu (Esmael et al., 2018), Debre Berhan (Wubshet, 2019), Malaysia (Abdullah et al., 2009), and Zambia (Gerdes and Mallinckrodt, 1994). The possible causes may be that students who are away from home for the first time have difficulty studying their educational

work effectively and may feel loneliness. First-year students and their parents may fear losing aspects of their relationship with each other.

Another variable that predicts adjustment problems among first-year undergraduates in this study was living in the dormitory. In this study, those living in a dormitory were 5.42 times more likely to have adjustment problems than those who had not faced difficulty. This is in agreement with the results of the studies conducted at Madawalabu University (Esmael et al., 2018) and Millennium Medical, Addis Ababa, Ethiopia (Gerensea et al., 2017). The possible justification could be that university classes and the accompanying workload were the greatest areas of difficulty on their campus, followed by a change in living arrangements or living in a dormitory, and also that

students challenged that socializing or making friendships is not an area of difficulty in adjusting to the university.

Limitations of the study

The limitation of the study might be that our study had a cross-sectional design, and we could not establish causal relationships between the associations we observed. Also, recall bias was unavoidable because the data were gathered from participants' self-reports.

Conclusion

This study's findings showed that the prevalence of adjustment problems among undergraduates was high. It was more likely to experience adjustment problems among those far away from university, earning low pocket money, being away from family/home, and having difficulty living in the dormitory. Social adjustment problems, followed by institutional adjustment problems, were higher among the adjustment subscales scores.

Implications

Based on this study finding, numerous areas of research can be implicated. First, a student's previous coping techniques may point out causes related to adjustment problems and areas where interventions are required. Additionally, the results of this qualitative study may not be as generalizable because it only looked at a single institution as a case. An additional longitudinal study is required to address the significance of adjustment for university students, replicate these findings, and look into potential causes. Finally, more studies using larger samples, various backgrounds, and pertinent factors, including physical, health, and financial problems, may produce useful indicators of troubles in the area.

Recommendations

Based on the findings of this study, the following recommendations are made; WU ought to provide appropriate interventions (including psychosocial support such as induction training, mentoring, counseling, and life skills training) in psychological distress to help the students develop healthy psychological wellbeing. Besides, sufficient relaxation, recreation, and play facilities are as essential as teaching. Finally, WU's mental health department and psychosocial support center should emphasize adjustment problems of first-year undergraduates to reduce stressors.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the Ethical Committee of Wollo University College of Medicine and Health Science, Department of Psychiatry. Permission was obtained from the student director of Wollo University to cascade the research. All participants in the study were informed that participation is voluntary and written informed consent was taken, and they could withdraw from the study at any time if they were not comfortable with the questionnaire. The personal identifier was not included so that a participant's confidentiality and privacy were assured. All methods were performed in accordance with the relevant guidelines and regulations. The patients/participants provided their written informed consent to participate in this study.

Author contributions

TA and AB designed the study, developed the proposal, and conducted data collection. JK developed the proposal and collected the data. TA performed data analysis and report writing, interpreted the data, and prepared the manuscript for publication. All authors participated in approving the manuscript.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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