

ORIGINAL ARTICLE

Social Integration, Perceived Social Support, and Subjective Well-Being among University Students

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Abstract

In today's complex sociocultural context, understanding the social health of university students is essential, as internal and external factors shape students' well-being. This study examines perceived social support, subjective well-being, and social integration as social health variables among undergraduate university students. The study employed a quantitative approach, using a survey to collect data from students through multi-stage stratified random sampling. Instruments measuring social integration, perceived social support, and subjective well-being for university students were used, and the data were analyzed using descriptive and inferential statistics. The findings indicated that students demonstrated higher levels on measures of social health variables. Background characteristics such as age, academic stream, and year of study significantly influence students' social health. A positive, statistically significant relationship was found between social integration, perceived social support, and subjective well-being. Interpersonal bonds outside the family are vital for social integration. Family relationships, academic efficacy, and college gratitude challenge the assumption that academic satisfaction mainly drives social integration. Importantly, the tested model was statistically significant in predicting university students' social integration. The study recommends implementing programs that promote social integration and foster a sense of community on campus.

Keywords: social integration, social health, perceived social support, subjective well-being

Background

Perceived social support, social integration, and subjective well-being are essential social health variables in undergraduate university life. This is because this life stage is transitional, during which they often form new social connections while letting go of established ones. Social health is 'adequate and well-functioning social relationships,

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sufficient social support, little or no social strain, some social participation, social inclusion in one's society, and strong, well-functioning social networks (Waite, 2018, p. 100)'. This definition reveals that social health involves many facets of our lives. However, social health, in this study, encompasses perceived social support, social integration, and subjective well-being among university students.

Social integration is the process by which students from diverse backgrounds, cultures, or social groups come together to create a cohesive and harmonious social environment (Amosco&Galigao, 2024). It contributes to the overall academic and personal development of university students. Facilitating social connections and relationships with peers and the surrounding environment among students is more likely to nurture a sense of belonging and support within the university community (Maunder, 2018). This, in turn, can lead to increased engagement in campus activities, improved mental well-being, and higher levels of academic achievement (Mrozinske, 2016; Oyeniyi et al., 2021; Wong et al., 2024; Chemagosi, 2024). Social integration is an essential component of social health in undergraduate university students. It nurtures affiliation, improves academic outcome, and encourages positive relational dynamics (Strayhorn, 2018; Jabbar, 2024; Cavaletto&Miglietta, 2024). Importantly, it implies the brief process for which students become part of social network.

Conversely, perceived social support is vital to the well-being, mental health, and academic success of university students (Cobo-Rendón et al., 2020; Chen et al., 2023; Yuan et al., 2024; Chen et al., 2024). Support from family, friends, and peers helps students manage stress, reduces the likelihood of anxiety and depression, and enhances resilience and academic performance. Research indicates that robust social support strengthens resilience against stress and mental health challenges (Kumari et al., 2022; Zhang et al., 2023; Chyu& Chen, 2024). Support from family, peer relationships, and institutional resources significantly influences students' perceptions of support (Chaudhry et al., 2024). Strong social support systems are correlated with improved academic outcomes and reduced anxiety, underscoring the importance of fostering supportive environments within higher education institutions (Smith, 2023; Zhang, 2024).

Another significant variable in the social health dimension is subjective well-being. It is a fundamental concept that supports students' success in academic and extracurricular pursuits. In this context, subjective well-being refers to how students perceive and evaluate their lives and specific domains, including the emotional and cognitive dimensions of their experiences (Snyder & Lopez, 2001). Studies have shown that the quality of relationships is instrumental in influencing students' subjective well-being (Zhou et al., 2023; Zhang et al., 2024). Subjective well-being can have a positive and considerable impact on personal development and growth (Wang, 2024).

The relationship among social integration, perceived social support, and subjective well-being has a synergistic effect on students' overall well-being. Studies show that different

types of social support associated to various facets of subjective well-being (Siedlecki et al., 2014; Zhang & Sun, 2024). Social support and integration significantly impact subjective well-being (Appau&Awaworyi, 2020). Additionally, social integration and perceived social support are crucial factors that significantly impact the well-being and academic success of university students. Li (2024) identified that higher levels of social integration among students were associated with better psychological well-being and academic success. Social integration and perceived social support enhance students' sense of belonging, improving their engagement and overall support (Maluenda-Albornoz et al., 2022).

This study is grounded in Student Subjective Well-being Theory, Social Support Theory, and Student Integration Theory, with Ecological Systems Theory providing an overarching lens (Bronfenbrenner, 1979). Subjective wellbeing is conceptualized using Renshaw's student well-being model, which emphasizes the social and contextual nature of students' well-being in higher education settings (Renshaw & Bolognino, 2016). Perceived social support is considered a major psychosocial variable that enhances well-being directly and serves as a guard against stress (Cohen & Wills, 1985; Zimet et al., 1988). Brief social integration is indicated by students' embeddedness in campus life, which is vital for social health (Liu & Liu, 2000).

Furthermore, university students' social health variables are influenced by socio-demographic variables such as gender, age, year of study, and place of origin. Gender difference is seen in the perceived social support, subjective well-being, and social integration. Female students predominantly reported higher perceived social support and lower subjective well-being, due to sociocultural and limited representation in leadership on campus (Saddique et al., 2021). Female students have faced challenges in male-dominated academic and social spaces that have limited their involvement in extracurricular activities (Tucker, 2024).

Years spent on the campus also influence student's social health. Junior students have faced campus adjustment difficulties and restricted social networks, which affect their social health (Wilcox et al., 2005). When their year of study progress, social health increased due to exposure to group activity and peer learning. Nevertheless, the advantage of seniority is not similar, particularly when psychosocial support services are lacking. Being an urban or rural place of origin remains one of the key predictors of social health. Students from rural origins face challenges in social integration due to cultural differences in the urban located universities (Marav, 2020). This by itself restricts the formation of substantive social bonds and affects their well-being (Ali et al., 2021).

Regarding the predictors of social integration, different psychosocial and demographic variables have influenced it. Findings showed that subjective well-being has a substantial influence on social integration (Mahasneh, 2022). Support from family, friends, and significant others predicts social integration (Maluenda-Albornoz et al., 2022). Social support enhances affect, well-being, and belonging, which are determinative elements

of social integration (Berrios-Riquelme et al., 2025). When demographic variables are combined with other psychosocial predictors, they predict social integration. A study showed that personal and psychosocial factors together influence social integration across different educational settings (Gracia & Herrero, 2004).

Notwithstanding with an expanding body of research on university students social health variables, limitations still exist particularly in Ethiopian context. Methodologically, most studies showed in Ethiopia that they laden to simple association and examine variables in predicting stress, academic performance or social support, which limits understanding of social health variables in shaping students' well-being (Dachew et al., 2015; Jones, 2019). Conceptually, previous findings have examined these social health variables in isolation, with limited effort to integrate the constructs with a well-integrated theoretical model to reflect the multifaceted and socially situated nature of student well-being (Tinto, 2012; Renshaw & Bolognino, 2016; Cohen & Wills, 1985; Zimet et al., 1988). To add on, differences in the operationalization and measurement of these variables further limit cross-cultural study comparability and theoretical advancement, particularly in low-resource contexts (e.g., Keyes, 2006; Renshaw, 2016). Contextually, empirical evidence from low- and middle-income countries, including Ethiopia, remains limited relative to studies from Western contexts, despite distinct sociocultural, institutional, and resource-related conditions that may uniquely shape students' social experiences and well-being (Gebremariam et al., 2024; Kibret & Tareke, 2017). Addressing these gaps, the present study examines subjective well-being, perceived social support, and brief social integration within an integrated theoretical framework among undergraduate university students. The following are the basic research questions addressed in this study.

1. What are the levels of social integration, subjective well-being, and perceived social support among university students?
2. Are there differences across demographic variables (gender, place of origin, stream, and year of study) in social integration, subjective well-being, and perceived social support among university students?
3. What is the relationship among social integration, subjective well-being, and perceived social support among university students?
4. Do demographic variables, perceived social support, and subjective well-being predict social integration among university students?

Method

Research Approach and Design

This study employed a quantitative research approach. It was used to collect numerical data that can be analyzed using statistical techniques (Johnson & Eagly, 2000). This

study collected and analyzed the levels, relationships, and predictive powers of the study variables among sample university students.

The research design used in this study was a quantitative survey. A quantitative survey design is a structured research method that involves the systematic collection of numerical data from a sample population using standardized instruments such as questionnaires. (Silva et al., 2015; Fowler, 2013; Cresswell, 2014).

Participants and Procedures

The study was conducted among undergraduate university students in Ethiopia. A multi-stage stratified random sampling technique was employed to select sample students who stayed on campus for more than a year. The initial stage was categorizing colleges based on consistent student enrollment and larger student populations. Hence, the College of Business and Economics and the School of Law from the social science stream, and the College of Medicine and Health Sciences from the natural science stream were selected. Then, stratification was based on gender and academic year. These stages were employed to enhance the selection precision and generalizability to the study population (Singh & Mangat, 1996).

The total sample size was determined using Cochran's (1963) formula for estimating sample proportions in large populations. Based on this formula, the final sample size for the study was calculated. To address disproportionate representation, stratum-specific sample sizes were allocated. Minimum thresholds were applied to ensure adequate representation of smaller strata.

Measures

The Multidimensional Scale of Perceived Social Support (MSPSS) was used to measure students' perceived social support via self-report (Zimet et al., 1988). The MSPSS was initially tested on university undergraduate students. It has 12 items, with three subscales addressing different sources of support: family, friends, and significant others. Responses are rated on a 7-point Likert scale ranging from 1 ("Very strongly disagree") to 7 ("Very strongly agree").

The College Student's Subjective Well-Being Questionnaire (CSSWQ) was used to assess students' first-order covitality, including academic self-efficacy, college gratitude, school connectedness, and academic satisfaction, as well as the second-order latent construct of college students' covitality (Renshaw & Bolognino, 2016). The scale contains 16 items rated from 1 (strongly disagree) to 7 (strongly agree).

Students' social integration was assessed using the Brief Social Integration Scale (BSIS) developed by Holland and Grün (2018). BSIS is a concise instrument designed to measure social integration. It assesses how well individuals are embedded in their social

networks and the quality of their social relationships. This concise 6-item instrument responses are recorded on a 5-point Likert scale ranging from 1 (“Strongly disagree”) to 5 (“Strongly agree”).

To establish content validity for the adapted scale, the Content Validity Index was computed in accordance with established guidelines. The Content Validity Index is widely recognized method for expert judgment of items (Lynn, 1986; Polit & Beck, 2006). Each item was rated by a panel of seven subject matter experts with specialties in social psychology, psychology, educational psychology, developmental psychology, social work, and sociology, using a 4-point relevance scale. Both item-level and scale-level indices were calculated as recommended by Yusoff (2019). These sources provide the theoretical foundation and practical steps for CVI computation, ensuring methodological rigor and transparency in the validation process. As a result, the measures meet the acceptable threshold. The values are presented in Table 1.

Table 1

Content Validity of Measures by Experts

Measures	I-CVI	S-CVI/Average	S-CVI/UA	Remark
Subjective well-being	1	1	1	Accepted
Perceived social support	1	1	1	Accepted
Brief social integration	1	1	1	Accepted

Note: I-CVI is presented here for each item, not the total

Thresholds: I-CVI ≥ 0.78 ; S-CVI/Ave ≥ 0.90 ; S-CVI/UA ≥ 0.8 and if its 1 it is ideal

The reliability of the instruments was evaluated using internal consistency analysis of data collected during the pilot study with 65 students, as recommended by Wolf et al. (2013). Cronbach’s alpha was computed for each scale using IBM SPSS version 26. The overall reliability coefficient for all measures is within an acceptable threshold, indicating internal consistency. Cronbach’s alpha values for the subjective well-being, perceived social support, and brief social integration scales are 0.88, 0.87, and 0.72, respectively. In addition, each sub-scale’s values are for academic satisfaction 0.81, academic efficacy 0.84, school connectedness 0.83, college gratitude 0.78, significant others 0.88, family 0.74, and friends 0.88. All the instruments are measured in English.

Data Analysis

A one-sample t-test was used to examine levels of social integration, perceived social support, and university students’ subjective well-being. An independent samples t-test was used to assess differences across gender, place of origin, and academic stream. A one-way ANOVA was used to investigate differences in social integration, perceived social support, and subjective well-being across student year levels (second-, third-, fourth-, and fifth-year students).

Pearson product-moment correlations were used to examine the relationships among social

integration, perceived social support, and students' subjective well-being. Additionally, it was used to examine the association between perceived social support dimensions and subjective well-being. Multiple linear regression is used to examine the predictive power of students' demographic characteristics, perceived social support, and subjective well-being for social integration.

Ethical Considerations

Ethical clearance was sought and obtained from the Institutional Research Ethics Review Committee (IRERC) of the University of Gondar, with reference number UOG/IRERC/05/06/124/2025. This clearance ensures that the research complies with established ethical standards for studies involving human participants. Written informed consent was obtained from participants, and for those who participated in an online version, an agreement box was provided to indicate their willingness to participate in the study by checking a box. The participants were also informed about the data privacy, confidentiality, and anonymity of their information.

Results

This section presents the results of analyses examining the extent to which subjective well-being, perceived social support, and demographic characteristics predict social integration among university students. In addition, the relationship between social health variables and differences across demographic variables is tested.

Table 2

Demographic Characteristics of Respondents

Students Demography	Classification	N	Percentage	Mean	SD
Age				21.89	1.36
Gender	Male	93	42.7		
	Female	125	57.3		
Place of origin	Urban	135	61.9		
	Rural	83	38.1		
Stream	Social	96	44		
	Natural	122	56		
Year of study	Second year	63	28.9		
	Third year	45	20.6		
	Fourth year	75	34.4		
	Fifth year	35	16.1		

Table 2 summarizes the demographic profile of the study sample undergraduate university students. Participants had a mean age of 21.89 years and a standard deviation of 1.36. The sample was moderately skewed toward female students, and the majority reported an urban background. Students from the natural sciences were slightly more numerous than those from the social sciences. Regarding academic progression, most participants were in the middle to later years of study; fourth-year students comprised the largest subgroup, followed by second- and third-year students, whereas fifth-year students accounted for the smallest proportion. Generally, the sample reflects a diverse undergraduate population with respect to gender, disciplinary stream, and academic seniority.

The Level of Social Integration, Perceived Social Support and Subjective Well-Being

In this study, social health variables were assessed among participants to determine their levels. The variables include social integration, support from significant others, family relationships, friendships, perceived social support, academic efficacy, academic satisfaction, school connectedness, college gratitude, and subjective well-being. The overall results, as shown in Table 3, indicated that the sample students exhibited higher social health levels compared to the test values.

Table 3

Levels of Students in the Measures of Social Health Variables

Variable	Mean (SD)	M	t	p
Brief social integration	22.36(3.87)	18	16.65	0.00
Significant other	20.68 (5.53)	16	12.48	0.00
Family	22.01(4.76)	16	18.65	0.00
Friends	19.71(5.24)	16	10.3	0.00
Overall perceived social support	62.39(12.52)	48	16.97	0.00
Academic efficacy	21.45(4.44)	16	18.13	0.00
Academic satisfaction	19.82(5.11)	16	11.04	0.00
School connectedness	19.03(5.41)	16	8.27	0.00
School gratitude	14.91(4.11)	12	10.44	0.00
Overall subjective well-being	75.22(14.59)	60	15.4	0.00

A series of one-sample t-test revealed significantly higher scores across all the social health variables. The brief social integration scores significantly exceed the population mean ($M = 22.36$, $SD = 3.87$), $t(216) = 16.65$, $p < .001$). Implying sample students in the university had a better integration in the campus life.

Regarding perceived social support of university students, the dimensions of significant others, family and friends significantly exceeded the population mean. The overall perceived social support ($M = 62.39$, $SD = 12.52$) showed marked elevation relative to population standards ($\mu = 48$), $t = 16.97$, $p < .001$.

University students' subjective well-being and its dimension score also showed statistically significant compared to the population mean. The subjective well-being measures of academic efficiency Academic efficacy ($M = 21.45$, $SD = 4.44$) exceeded population norms ($\mu = 16$), $t = 18.13$, $p < .001$. Academic satisfaction ($M = 19.82$, $SD = 5.11$) was significantly higher than population averages ($\mu = 16$), $t = 11.04$, $p < .001$. School connectedness dimensions of subjective well-being ($M = 19.03$, $SD = 5.41$) surpassed comparison standards ($\mu = 16$), $t = 8.27$, $p < .001$. School gratitude ($M = 14.91$, $SD = 4.11$) showed significant elevation over population means ($\mu = 12$), $t = 10.44$, $p < .001$. The overall subjective well-being ($M = 75.22$, $SD = 14.59$) demonstrated substantial advantages compared to population norms ($\mu = 60$), $t = 15.40$, $p < .001$. The findings demonstrated that all dimensions of social health measures were significantly higher in the sample students compared to population reference value, with large effect sizes as indicated by the t values.

Gender Based Comparison across the social integration, perceived social support and subjective well-being

An independent sample t -test was conducted to examine the differences in measures of social health and its dimensions. The results showed that being male or female was not a statistically significant factor in determining social integration, subjective well-being, and perceived social support of undergraduate university students.

Table 4

Gender based comparison across the social health variables

Variable	Male	Female	t	p
Social Integration	22.41 (4.24)	22.44 (3.59)	-0.57	.90
Significant Others	20.18 (6.06)	21.24 (5.16)	-1.28	.20
Family Support	22.07 (4.29)	22.43 (4.74)	-0.52	.60
Friends Support	19.94 (4.83)	19.65 (5.55)	0.36	.71
Perceived Social Support	62.19 (11.32)	63.32 (12.71)	-0.61	.50
Academic Efficacy	21.35 (5.29)	21.48 (4.13)	-0.18	.80
Academic Satisfaction	19.68 (5.88)	19.71 (4.90)	-0.05	.90
School Connectedness	19.62 (5.27)	18.41 (5.63)	1.45	.10
College Gratitude	15.50 (4.04)	14.49 (4.16)	1.60	.10
Subjective Well-Being	76.15 (15.16)	74.10 (14.48)	0.93	.30

An independent sample t -test revealed in Table 4 shows that there was no statistically significant gender differences across the three main social health variables and their dimensions ($\alpha = .05$). However, effect size analysis revealed meaningful patterns worth

contextual interpretation.

Subjective well-being dimensions of school connectedness and college gratitude approached the conventional significant threshold, suggesting a potential male advantage in bonding and gender difference in gratitude expression. Females showed better mean scores in social integration and perceived social support while males outperformed females in total subjective well-being.

Social health variables between rural and urban origin university students

Students' place of origin influences their integration into the school environment, their perception of support, and their well-being. In this study, a comparison was made to determine whether there is a statistically significant difference between urban and rural students in social integration, perceived social support, and subjective well-being. The findings showed that a statistically significant difference was observed in social integration and perceived social support, with urban-origin students performing better in both areas within the school environment.

Table 5

An independent sample t-test measuring place of origin comparisons

Variable	Urban	Rural	t	p
Social Integration	22.78 (3.74)	21.32 (3.97)	2.24	.020
Significant Others	21.71 (5.11)	18.14 (6.06)	3.91	.001
Family Support	22.95 (4.16)	20.39 (5.47)	3.32	.001
Friends Support	20.10 (5.15)	18.91 (5.83)	1.29	.190
Perceived Social Support	64.75 (10.92)	57.43 (14.86)	3.57	.001
Academic Efficacy	22.12 (3.91)	19.59 (5.69)	3.36	.001
Academic Satisfaction	20.05 (5.02)	18.91 (5.90)	1.27	.200
School Connectedness	18.90 (5.61)	18.82 (5.46)	0.09	.920
College Gratitude	15.07 (3.93)	14.50 (4.71)	0.81	.420
Subjective Well-Being	76.15 (13.95)	71.82 (16.25)	1.73	.080

As shown in Table 5, a statistically significant difference was observed in multiple domains at $p < .05$. In social integration, urban students had an advantage over rural students. It was found that students from urban places of origin ($M = 22.78$, $SD = 3.74$) scored significantly higher than those from rural places of origin ($M = 21.32$, $SD = 3.97$) on their brief social integration measures, $t(216) = 2.24$, $p = .020$. The effect size was small to medium (Cohen's $d=0.38$).

Support from significant others was more substantial among students from urban places of origin. Similarly, family support favored urban participants and was statistically significant, $t(216) = 3.32, p=0.001$. Students from urban backgrounds ($M=64.75, SD=10.92$) scored significantly higher than those from rural backgrounds ($M=57.43, SD=14.86$) on perceived social support, $t(216) = 3.57, p=0.001$.

In the dimension of subjective well-being within academic efficacy, a significant difference is observed between students from urban and rural backgrounds, $t(216) = 3.36, p = 0.001$. This indicates that students from urban origins perform better in the subjective well-being aspect of academic efficacy than those from rural origins. However, in other dimensions of subjective well-being and in the overall subjective well-being measure, no significant difference was found between urban and rural groups, $t(216) = 1.73, p = .080$. The findings indicated that the independent sample t-tests revealed significant urban advantages across five of the ten measures of the social health dimensions.

Field of Study-Based Comparison

An independent sample t-test was performed to compare social health variables between students in social and natural streams. The results showed few differences across most variables, with one notable exception.

Table 6

An independent sample t-test measuring social health variables between social and natural stream students

Variables	Stream	N	Mean	Std. Deviation	t	P
Social integration	Social	122	22.3919	4.00618	-0.27	0.78
	Natural	96	22.5652	3.18086		
Significant others	Social	122	20.6486	5.74855	-0.99	0.32
	Natural	96	21.5652	4.60749		
Family	Social	122	22.2635	4.35712	-0.22	0.82
	Natural	96	22.4348	5.28163		
Friends	Social	122	20.0946	5.13271	1.62	0.10
	Natural	96	18.6522	5.70854		
Perceived social support	Social	122	63.0068	12.51638	0.17	0.86
	Natural	96	62.6522	11.34748		
Academic efficacy	Social	122	21.3108	4.52334	-0.67	0.50
	Natural	96	21.8261	4.69186		
Academic satisfaction	Social	122	20.0676	5.04492	1.75	0.08
	Natural	96	18.5217	5.75708		

School connectedness	Social	122	18.8514	5.31890	0.07	0.94
	Natural	96	18.7826	6.18928		
College gratitude	Social	122	14.3919	4.07019	-2.78	0.006
	Natural	96	16.3043	4.05994		
Subjective well-being	Social	122	74.6216	14.19083	-0.33	0.74
	Natural	96	75.4348	16.44608		

As indicated in table 4 in social integration, social stream students ($M = 22.39$, $SD = 4.01$) and natural stream students ($M = 22.57$, $SD = 3.18$) showed no statistically significant differences. Regarding perceived social support measures, there were no statistically significant differences across the dimensions or in the overall result between social and natural stream students.

The other notable measures of social health, including the dimensions of subjective well-being and academic efficacy, show that both groups report similar levels: social stream ($M = 31$, $SD = 4.52$) versus natural stream ($M = 21.83$, $SD = 4.69$), $t(216) = -0.67$, $p = 0.50$. Social stream students ($M = 20.07$, $SD = 5.04$) report slightly higher academic satisfaction than natural stream students ($M = 18.52$, $SD = 5.76$), but this difference is not statistically significant, $t(216) = 1.75$, $p = .08$. In measures of school connectedness related to subjective well-being, no statistically significant difference was found between social and natural stream students, $t(216) = 0.07$, $p = .94$. However, natural stream students ($M = 16.30$, $SD = 4.06$) report significantly higher college gratitude than social stream students ($M = 14.39$, $SD = 4.07$), $t(216) = -2.78$, $p = .006$. The overall subjective well-being score indicates that there are no statistically significant differences between social and natural stream students, $t(216) = -0.33$, $p = 0.74$.

The analysis showed that social and natural stream students have similar levels of social health variables, except for college gratitude, where natural stream students reported significantly higher levels. The pattern indicates that academic stream differentiation may specifically influence institutional gratitude rather than broader social health measures.

Year of study Based Comparison of the Social Health Variables

A one-way ANOVA is computed to compare students' social health across years of the study. There is no statistically significant difference across years of study on the majority of social health variables. However, significant changes are observed in subjective well-being variables of academic satisfaction and college gratitude.

Table 7

Year of Study-based Comparison of Social Health Variables

Variables	Second Year	Third Year	Fourth Year	Fifth Year	F	p
Social integration	22.0 (3.74)	22.28(5.42)	22.54(3.91)	24.20(1.22)	0.96	0.41
Significant others	22.16(3.66)	21.71(6.26)	20.48(6.16)	19.00(5.45)	1.75	0.15
Family	22.90(4.49)	22.42(4.95)	22.55(4.26)	19.20(3.55)	2.08	0.10
Friends	19.06(5.36)	21.00(5.49)	20.36(4.94)	18.60(7.01)	1.17	0.32
Perceived social support	64.13(9.03)	65.14(15.83)	63.39(12.50)	56.80(13.71)	1.21	0.31
Academic efficacy	21.93(3.94)	21.42(5.91)	21.50(4.45)	18.80(5.94)	1.38	0.25
Academic satisfaction	19.23(5.10)	16.28(4.02)	20.52(5.21)	17.80(6.40)	3.48	0.01
School connectedness	18.50(5.76)	19.71(4.98)	19.08(5.43)	17.60(4.08)	0.43	0.72
College gratitude	15.96(3.90)	14.57(4.60)	14.40(4.08)	12.00(5.16)	3.45	0.01
Subjective well-being	75.63(14.25)	72.00(14.90)	75.50(14.24)	66.20(20.49)	1.45	0.28

In social integration, there was no statistically significant difference across the years of the study. However, the mean value shown in Table 7 indicated that social integration in campus life tends to increase as students progress through their years of study. A higher mean was observed among fifth-year students, with minimal variations among them. There was greater deviation in social integration among second, third, and fourth-year students, respectively. As a year of study progresses, there is a slight decline in perceived social support among students. This also applies to the other dimensions of perceived social support.

In the overall dimensions of subjective well-being, there were no statistically significant differences across the students' year of study. However, a decline is observed as the year of study increases, as shown in Table 5. In the dimension of academic satisfaction, there was a statistically significant difference across the years of study, $F(3,214) = 3.48$, $p = 0.01$. The Tukey HSD comparison indicates that fourth-year students have significantly higher academic satisfaction than third-year students, with a mean difference of -4.23 (95% CI: -8.06, -0.41). In college gratitude, a statistically significant difference was observed across the years of study among students, $F(3,214) = 3.45$, $p = 0.01$. The Tukey HSD shows that second-year students experience significantly higher gratitude than fifth-year students, with a mean difference of -3.97.

Relationship among Social Integration, Perceived Social Support and Subjective Well-being

The relationship between social integration, perceived social support, and subjective well-being is tested using Pearson product-moment correlations. Furthermore, the relationships across the dimensions of each social health measure are computed. The results generally indicate that there is a positive statistically significant relationship among each measure and its dimensions.

Table 8

Bivariate correlation between social integration, social support, and subjective well-being

Variables	1	2	3
Social integration	-		
Perceives social support	.342**	-	
Subjective well-being	.148*	.461**	-

** . Correlation is significant at the 0.01 level (2-tailed).

A Pearson correlational analysis examined the relationship between social integration, perceived social support, and subjective well-being in a sample of university students. The results indicated statistically significant positive correlations between all three variables. Social integration showed a moderate positive correlation with perceived social support ($r=.34$, $p<.01$) and a significant positive correlation with subjective well-being ($r=.15$, $p<.05$). The strongest correlation emerged between perceived social support and subjective well-being ($r=.46$, $p<.01$). These results suggest that socially integrated students tend to report higher levels of perceived social support. Both social integration and perceived social support demonstrate a meaningful association with students' subjective well-being. Students' perceived social support shows the strongest connection to subjective well-being.

A Correlational Analysis of Perceived Social Support Dimensions

Table 9

Inter-correlations among perceived social support components

Variables	1	2	3	4
Significant others	-			
Family	.567**	-		
Friends	.496**	.346**	-	
Perceives social support	.865**	.776**	.770**	-

** . Correlation is significant at the 0.01 level (2-tailed).

A Pearson correlation analysis showed strong connections among the dimensions of perceived social support. All correlations were statistically significant at $\alpha < 0.01$ level (two-tailed), indicating solid associations between support sources. The overall perceived social support has a strong positive correlation across its dimensions. Therefore, perceived social support acts as an integrating construct combining specific support sources. The family-friend correlation is the smallest (yet still statistically significant) association.

The Relationship between Subjective Well-Being Items

The correlation between the various aspects of subjective well-being in university students, as presented in Table 8, demonstrates statistically significant moderate positive associations.

Table 10

Bivariate correlation between subjective well-being components

Variables	1	2	3	4	5
Academic efficacy	-				
Academic satisfaction	.512**	-			
School connectedness	.445**	.579**	-		
College gratitude	.371**	.271**	.432**	-	
Subjective well-being	.753**	.797**	.831**	.650**	-

** . Correlation is significant at the 0.01 level (2-tailed).

A Pearson correlation analysis revealed significant associations among five dimensions of academic-related well-being. All correlations were statistically significant at $\alpha < .01$ (two-tailed), indicating consistent relationships across measures. Students' school connectedness showed the strongest association with overall subjective well-being, $r=.83$. Academic satisfaction emerged as the second strongest predictor, $r=.80$. The weakest significant correlations were observed between college gratitude and academic satisfaction. All relationships exceed conventional thresholds for meaningful psychological associations.

Predictors of Social Integration

Many factors influence students' social integration at university. These include immediate to distant factors as well as individual personality traits. In this study, factors related to perceived social support, subjective well-being, and demographic variables such as age, gender, place of origin, academic stream, and year of study are examined. A multiple linear regression analysis predicting social integration demonstrated statistically significant effects.

Table 11
Regression Analysis Predicting Social Integration

Predictors	S.E	β	t	p
Significant others	.065	.207	2.254	.026
Family	.077	.000	-.001	.999
Friends	.067	.181	2.013	.046
Academic efficacy	.079	-.066	-.738	.462
Academic satisfaction	.070	-.125	-1.332	.185
School connectedness	.073	.103	1.019	.310
College gratitude	.081	.113	1.307	.193
Age	.241	.197	2.373	.019
Gender	.740	.158	1.749	.082
Place of Origin	.696	-.105	-1.414	.159
Academic stream	.859	.189	2.000	.047
Year of Study	.403	.286	2.770	.006

A multiple linear regression analysis was performed to identify predictors of social integration. The overall model was statistically significant, $F(12, 207) = 3.77$, $p < 0.001$, accounting for 21.3% of the variance ($R^2 = .213$). Among the predictors, perceived social support from significant others ($\beta = .207$, $p = .02$) and friends ($\beta = .181$, $p = .04$) were significant positive predictors. Age ($\beta = .197$, $p = .01$), academic stream ($\beta = .189$, $p = .04$), and year of study ($\beta = .286$, $p = .006$) also significantly predicted the outcome variables. However, family support, academic efficacy, academic satisfaction, school connectedness, college gratitude, gender, and place of origin were not statistically significant predictors ($P > 0.05$).

The finding further illustrates that each unit of social support from significant others enhances social integration in the university environment by 0.207. Perceived social support from peers ranks as the second most significant factor influencing social integration among students. Older students report better social integration (+0.197SD/unit). With each shift in academic stream, there is a 1.72 percent change in social integration. The most powerful predictor is the year of study; each additional year corresponds to a 2.8 percent increase in social integration.

The result suggests that perceived social support from significant others and friends outweighs the academic factors in the constructs of subjective well-being. The age and year of study of university students emphasize the cumulative nature of campus experience.

Discussion

The purpose of this study was to examine how well subjective well-being, perceived social support, and selected demographic characteristics predict social integration among university students. The investigation of social integration, perceived social support, and subjective well-being among university students reveals key findings. Social health in Ethiopian university students is vital for their academic success and overall well-being. It

plays a crucial role in developing well-rounded, resilient individuals who can contribute positively to society. When social support is low, students are more likely to face mental health problems compared to those with strong social support (Hefner & Eisenberg, 2009). Conversely, low social integration can lead to various negative effects, such as increased feelings of isolation, loneliness, and mental health issues. It may also result in decreased participation in extracurricular activities, limiting opportunities for personal growth and networking (Hamza et al., 2021; Lukács, 2021).

Gender influences social integration, subjective well-being, and perceived social support. Due to norms and expectations, men and women often participate differently in social networks and campus activities. Women tend to build closer, more intimate relationships, while men may have broader but less deep connections. This can affect the quality and extent of social integration, shaping how both genders engage in campus life. Research indicates that gender affects aspects of life satisfaction and happiness. Women often report higher stress levels and may face greater difficulties balancing study and social life, which can impact their well-being (Inglehart, 2002). The perception of sufficient social support is vital for mental health and coping, influencing genders differently. Women typically perceive higher social support from friends and family (McLean et al., 2023; Barnett et al., 2021; Kneavel, 2021). However, in this study, gender does not significantly influence social integration, subjective well-being, or perceived social support. Consistent with this, Joshi (2010) states that gender is not a determinant of subjective well-being. Jones (2010) suggests that social integration impacts gender. Overall, there are no significant differences in subjective well-being levels across genders (Mahasneh, 2022).

Being an urban place of origin offers a significant advantage in terms of social integration, perceived social support from significant others and family, and the subjective well-being of academic efficacy. The findings from Sining et al. (2022) demonstrated that the university department influenced students' well-being. This indicates that the feedback system and other forms of support provided within the field of study have a considerable impact on students' overall social health. There was no statistically significant difference between natural and social science students in social integration, perceived social support, and subjective well-being. However, college gratitude for subjective well-being showed a significant benefit for natural stream students. As the year of study increases, there is no statistically significant advantage in social integration, subjective well-being, and perceived social support. Nonetheless, academic satisfaction and college gratitude had statistically significant benefits across different years of study.

A notable positive relationship exists between social integration, perceived social support, and subjective well-being among university students. A strong positive correlation is present between perceived social support and the components of subjective well-being. Studies have indicated no correlation between academic and social integration (Kubala, 2000). Others have stated that a positive correlation was observed between subjective well-being and social support (Mahasneh, 2022). Huang & Zhang (2022) emphasize that

perceived social support is significantly associated with well-being among students. The positive association between social health variables suggests that interpersonal relationships play a critical role in buffering academic and psychosocial stress among university students.

Personal and situational factors significantly contributed to changes in social integration (Herrero & Gracia, 2004). This study indicates that social integration is significantly explained by subjective well-being and perceived social support, in combination with students' demographic characteristics. Rubin (2012) observed that social class is related to social integration. Additionally, gender and year of study played a role in determining social integration. Taken together, the findings indicate that social integration among university students is primarily shaped by psycho-social factors and demographic characteristics, underscoring the central role of demographic factors, subjective well-being and perceived social support in fostering students' connectedness within higher education settings. This findings is consistent with social support theory, which posits that emotional and instrumental support enhance psychological resilience. However, the stronger role of peer support in this study contrasts with some western study findings, highlighting contextual difference.

This study advances theory by conceptualizing social integration as an outcome shaped by psychological, social, and demographic factors in higher education. Extending Student Integration Theory, the findings suggest that social integration is not only a precursor to academic success but also influenced by students' subjective well-being and perceived social support, indicating a dynamic integration process. The predictive role of subjective well-being supports theoretical arguments that positive emotional and evaluative states facilitate students' engagement and participation in university social life (Steele & Fullagar, 2009). Consistent with Social Support Theory, perceived social support is a key social resource that promotes integration. Furthermore, the inclusion of demographic characteristics—place of origin, academic stream, gender, and year of study—aligns with Ecological Systems Theory, highlighting how individual attributes and institutional positioning jointly shape social integration (Johnson, 2026). Generally, the study underscores the value of multidimensional, ecologically grounded theoretical models for understanding student social integration, particularly in under-researched higher education contexts. Besides, in the Ethiopian higher education context, where many students relocate from rural area and face significant socio-economic challenges, social support system may serve as a crucial coping mechanisms for adjustment and well-being

This study has several limitations to consider when interpreting its results. First, the cross-sectional design limits the ability to establish causality among subjective well-being, perceived social support, and social integration. Second, reliance on self-reported data may introduce response biases and social desirability effects. Third, conducting the study within a limited institution limits the applicability of the findings to other

universities or higher education environments with different structures and cultures. Although key demographic factors were included, other relevant variables—such as academic performance, mental health history, and institutional support services—were not examined. Lastly, although validated scales were used, contextual differences might influence how students interpret and answer certain items. These limitations indicate that the results should be viewed as suggestive rather than conclusive.

Conclusion

The study highlights social integration as a dynamic outcome influenced by students' social relationships and academic pathway rather than by personal attributes. Perceived social support is a substantial factor, serving as the primary factor through which students enhance subjective well-being and ensure continuity of meaningful engagement within the university environment. While social integration and well-being are interconnected, the findings further revealed that social support, particularly from friends and significant others, was positively associated with students' subjective well-being, while other factors showed limited or non-significant effects. These results highlight the importance of interpersonal support systems in shaping students' well-being within Ethiopian universities, where many students face academic, social and economic challenges. The findings suggest that strengthening peer support and fostering inclusive campus environments may contribute to improved student experiences. Contextual advantages, particularly an urban background and academic progression, further reveal that access to social and institutional resources accumulates over time, reinforcing integration. Notably, the limited role of gender and disciplinary stream challenges commonly held assumptions and shifts attention toward structural and relational factors. Collectively, the findings advance understanding of student social health by positioning social integration as an evolving process driven by support systems and institutional exposure rather than static personal characteristics.

Recommendation

The findings of this study provide important insights into social integration among university students, challenging traditional views while supporting developmental and institutional theories. Universities should make student well-being a fundamental part of student support services, recognizing its role in social integration. Strengthening structured peer-support and mentoring programs can improve perceived social support, especially for students from rural areas, early in their studies, and in underrepresented academic fields. Institutions should create inclusive social and co-curricular activities that encourage interaction across genders, academic disciplines, and year groups. Orientation and transition programs should go beyond academic orientation to actively promote social connectedness and a sense of belonging. At the policy level, stakeholders in higher education should include social health indicators in student development and quality assurance frameworks. Future research should focus on longitudinal, multi-

institutional studies to better understand causal relationships and contextual factors influencing student social integration.

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Data Availability

The data-set used and analyzed in the study is available from the first author upon reasonable request.

Consent for Publication

Not applicable.

Authors Contribution

Habtamu Genet Yeniakal: conceptualization, methodology, investigation, data curation, formal analysis, writing-original draft.

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Competing Interest

The authors declare that there are no competing interests.

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