Background: Social anxiety disorder is a serious and disabling mental health problem that begins before or during adolescence, with the potential to significantly interfere with an individual’s daily functioning and overall quality of life.

Objective: The aims of this study were to assess the prevalence, severity, and quality of life towards social anxiety disorder among students of Mettu University, Ethiopia.

Subjects and Methods: A cross-sectional study was conducted among a stratified sample of 523 undergraduate students to identify the prevalence, correlates of social anxiety disorder, and impacts on quality life. All participants completed the Social Phobia Inventory, Liebowitz Social Anxiety Scale, and World Health Organization Quality of Life-Brief Form, Turkish Version (WHOQOL-BREF-TR). Of 523 students, 26% were screened positive for social anxiety disorder. About 69.4% and 17.4% of the students had mild and moderate symptoms of social anxiety disorder, respectively. WHOQOL BREF-TR scores showed that students with social phobia had significantly lower quality of life quality than those without social phobia. Being criticized by others or fear of parties was the most commonly feared situations. Talking to strangers was the most commonly avoided situations. Being females, current tobacco use, and family history of psychiatric illness were factors significantly associated with social phobia symptoms using logistic regression analysis.

Conclusion: The current study shows high prevalence of social phobia among the university students and its significant negative effects on quality of life which require prompt identification and treatment.

Keywords: social anxiety, university, quality of life
adulthood. However, recent studies suggest that lifetime prevalence rates may be much higher. After major depression disorder and alcohol dependence, social anxiety disorder is the third most common disorder in the general population and it is also the most prevalent anxiety disorder.

A cross-sectional study conducted in Sweden, Jordan University, Saudi Arabia (2014), and University of Parakuo students showed that about 9–16.1% of participants were positive of social phobia. Research conducted in Nigeria shows SAD in about 9.4% which states that there will be a significant difference in the phobic health of adolescents in the selected private and public Nigerian universities.

In Ethiopia, research conducted on prevalence of social phobia among high school students in Woldia, Gondar and Hawassa was 27.5%, 31.2%, 32.8%, respectively. Factors that have shown to have an association include being the first or only child, medical science faculties, being female, younger age, religious marital status (unmarried), the presence psychiatric illness, having a positive family history of mental disorder had a significant role for development of social phobia.

Evidence showed that social phobia was associated with substance use, low socioeconomic status, unemployment, low level of education, and social support. Also decreased academic achievement, poor clinical exam performance, and impaired quality of life also shown to have associated with social phobia.

Despite the high worldwide burden of social phobia, like shy, withdraw, unfriendly, and disinterested in social activity and limited evidence is available, particularly in developing countries. To the best of the author’s knowledge, no study has investigated the effects of social phobia on quality of life in Ethiopia. The present study aimed to determine the prevalence of social phobia among university students, its correlate, and impacts on quality of life.

**Subjects and Methods**

An institution based cross-sectional study conducted at Mettu University during the 2019–2020 academic years. This study included 8290 undergraduate students at Mettu University during the 2019–2020 academic years. Using a confidence interval of 95%, 5% margin of error, design effect of 2, the prevalence of social phobia of 19.9%, and adding 10% non-response rate of 10%, making a final number of participants to be 523. As such, 523 students were selected as the study group.

A study is part of a mega project undertaken in among regular undergraduate students of Mettu University and previously published study assessing suicidal behavior among this population were also part of the project.

Multistage stratified sampling technique was used to select the study participants. Stratification was first done on the faculty/college level, then by department and by the year of study. Finally, taking students from registration as a sampling frame a random selection was done. All regular undergraduate students aged 18yrs old and above were included, while critically ill students were excluded.

A self-administered structured questionnaire was used to collect information. Questionnaires about demographic, family and campus related and clinical factors were developed after an extensive review of literatures and similar study tools. Rating instruments included the Social Phobia Inventory to detect Social Phobia, the Liebowitz Social Anxiety Scale to measure the severity of Social Phobia and the WHO Quality of Life – BREF questionnaire to assess Quality of Life. The questionnaire was translated to Amharic and Afaan Oromo language, and then retranslated back to English so as to see and keep the consistency. Pretest was done on 26 students in Bedele agricultural campus whose completed the questionnaires beforehand and the questions were evaluated and re-arranged accordingly before actual data collection.

Ethical clearance was obtained from the ethical review board of Mettu University and permission was obtained from the concerned body.

**Rating Instruments**

Social Phobia Inventory (SPIN, a 17-item self-rating scale developed to measure social phobia). It shows the symptom domains of social phobia (fear, avoidance, and physiological arousal) and has reliable and valid psychometric properties in screening social phobia in adolescents and other populations. The Cronbach’s α in this study was 0.87. Subjects are asked to rate symptoms occurrences as 0 (not at all), 1 (a little bit), 2 (somewhat), 3 (very much), or 4 (extremely during the past week) and the sum score ranged from 0 to 68. A student with a score of 20 and
above on SPIN will be considered as having social phobia.25

Liebowitz Social Anxiety Scale is a self-rating scale used to rate fear/anxiety and avoidance regarding commonly feared performance or social situations. The scale includes 24 items and 2 subscales. The first subscale has 11 items and investigates social relationships. The second subscale has 13 items and investigates performance. The 4-point Likert-type scale measures the intensity of fear and avoidance behaviour during the previous week. It has a good internal consistency and evaluates the severity of fear and avoidance in common social situations. A score of <55 suggests mild social anxiety disorder, 55–64 suggests the moderate social anxiety disorder, 65–79 suggests marked social anxiety disorder, 80–94 suggests severe social anxiety disorder, and >95 suggests very severe social anxiety disorder. It is validated in and reliable for measuring the severity of social phobia.26 The Cronbach’s α in this study was 0.98.

World Health Organization Quality of Life Scale – Brief version (WHOQOL – BREF) which is a 26-item self-administered generic questionnaire. It produces a profile with four domain scores: physical health (7 items), psychological health (6 items), social relationships (3 items), environmental domain (8 items) as well as two separately scored items about the individuals’ perception of their quality of life (Q1) and health (Q2). Each item was scored in a Likert format from 1 (very dissatisfied) to 5 (very satisfied) in a positive direction, which means that higher scores indicate a higher quality of life. The scores of questions 3, 4 and 26 are reversed, so as to transform these negatively framed questions to positively frame. The Turkish version of the form had an internal validity score of 0.83 (Cronbach’s alpha) in physical terms, 0.66 in mental terms, 0.53 in social terms, and 0.73 in both environmental and environment-national terms.27 The Cronbach’s α in this study was 0.82.

Statistical Analysis
The data were analyzed using SPSS version 21. Descriptive (frequency and percentage) and inferential statistics (chi square test was used for categorical variables, and ANOVA (analysis of variance) were used to compare groups in terms of SPIN and LSAS scores).

An independent samples t-test was used to analyze the difference between the two groups (students with/without social anxiety disorder). Logistical regression analysis was used to evaluate the significance of the relationship between two dependent and independent variables. The Pearson correlation coefficient was used for correlation analysis.

Result
Socio-Demographic Characteristics of the Study Participants
A total of 523 participants were recruited for the study, which makes the response rate 100%. The results show that 270 (51.6%) of respondents were males and 253 (48.6%) were females. The mean age of students was 22.07 (SD = 2.36), with ages ranging from 18 to 32 years and the majority of them (61.0%) were at the age of 22 years or below. The sample consisted of different faculties with the highest number of engineering faculty (110, 21.0%) and the lowest number from Institute of education (42, 8.0%) which was proportionally recruited from each stratum. Also the study has revealed that 351 (67.1%) of the participants had one of two siblings and most perceived that their family income as bad (58.9%). The majority of the participants 319 (61.0%) were from rural backgrounds and first-year students comprises the majority of participants (222, 42.4%) (Table 1).

Social Phobia
The regarding students’ reports of their social phobia symptoms, the analysis (Table 2) showed that the mean score for students in general was 13.08 (SD = 9.24), with scores ranging from 0 to 43. About, 70% (n = 361) had a score of 16 or less.

Further analysis using LSAS score, for the levels of social anxiety symptoms showed that the majority of university students had mild symptoms, 69.4% (n = 363) followed by moderate symptoms 91 (17.4%), and those with marked to severe represented about 13.2% (n = 69). The Cronbach’s alpha for LSAS scale obtained in this sample was 0.976.

As shown in Table 2, 25.8% of the subjects had a SPIN score of 19 (Comor et al, 2000), and more which accounted for about one-fourth of participants, ie, There was a statistically significant difference in the prevalence of SAD regarding the age category, birth order, faculties, family history of mental illness. Being a younger age and rural backgrounds and first-year students comprises the majority of participants (222, 42.4%) (Table 1).

Social Phobia
The regarding students’ reports of their social phobia symptoms, the analysis (Table 2) showed that the mean score for students in general was 13.08 (SD = 9.24), with scores ranging from 0 to 43. About, 70% (n = 361) had a score of 16 or less.

Further analysis using LSAS score, for the levels of social anxiety symptoms showed that the majority of university students had mild symptoms, 69.4% (n = 363) followed by moderate symptoms 91 (17.4%), and those with marked to severe represented about 13.2% (n = 69). The Cronbach’s alpha for LSAS scale obtained in this sample was 0.976.

As shown in Table 2, 25.8% of the subjects had a SPIN score of 19 (Comor et al, 2000), and more which accounted for about one-fourth of participants, ie, There was a statistically significant difference in the prevalence of SAD regarding the age category, birth order, faculties, family history of mental illness. Being a younger age and rural backgrounds and first-year students comprises the majority of participants (222, 42.4%) (Table 1).
faculties, while lower prevalence is seen in the faculty of social science and humanities ($X^2 = 0.163, P < 0.05$).

The results of the present study show that significantly more of the students without social phobia have a family history of psychiatric illness than those with social phobia.

### Table 1 The Basic Sociodemographic, Clinical and Substance Use Characteristics of the Participants (n = 523)

| Variables          | Categories                           | Frequency | Percentage |
|--------------------|--------------------------------------|-----------|------------|
| Sex                | Male                                 | 270       | 51.6       |
|                    | Female                               | 253       | 48.6       |
| Age                | 18–20                                | 148       | 28.3       |
|                    | 21–23                                | 87        | 16.6       |
|                    | 24–26                                | 149       | 28.5       |
|                    | ≥27                                  | 139       | 26.6       |
| Ethnicity          | Oromo                                | 321       | 61.4       |
|                    | Amhara                               | 117       | 22.4       |
|                    | Gurage                               | 41        | 7.8        |
|                    | Tigre                                | 25        | 4.8        |
|                    | Others*                              | 19        | 3.6        |
| Faculty            | Engineering                          | 110       | 21.0       |
|                    | Health sciences                      | 97        | 18.5       |
|                    | Social science and humanities        | 85        | 16.3       |
|                    | Natural and computational            | 89        | 17.0       |
|                    | Business and economics               | 52        | 9.9        |
|                    | School of Law                        | 48        | 9.2        |
|                    | Institute of education               | 42        | 8.0        |
| Residence before campus | Urban                          | 204       | 39.0       |
|                    | Rural                                | 319       | 61.0       |
| Birth order        | Frist or only child                  | 123       | 23.5       |
|                    | Middle                               | 320       | 61.2       |
|                    | Last                                 | 80        | 15.3       |
| Year of study      | First                                | 130       | 24.9       |
|                    | Second                               | 133       | 25.4       |
|                    | Third                                | 107       | 20.5       |
|                    | Fourth                               | 77        | 14.7       |
|                    | Fifth                                | 76        | 14.5       |
| Alcohol use        | Yes                                  | 299       | 57.4       |
|                    | No                                   | 127       | 42.5       |
| Cigarette use      | Yes                                  | 78        | 14.9       |
|                    | No                                   | 53        | 67.9       |
| Khat use           | Yes                                  | 98        | 18.3       |
|                    | No                                   | 67        | 81.7       |

**Note:** *Wolayta, Dawuro, Kefa, Sidama, Gurage, Silte.*

### Table 2 Comparing Social Phobia with Demographic and Clinical Variables

| Variables          | Categories                           | Frequency | Percentage |
|--------------------|--------------------------------------|-----------|------------|
| Sex                | Male                                 | 270       | 51.6       |
|                    | Female                               | 253       | 48.6       |
| Age                | 18–20                                | 148       | 28.3       |
|                    | 21–23                                | 87        | 16.6       |
|                    | 24–26                                | 149       | 28.5       |
|                    | ≥27                                  | 139       | 26.6       |
| Ethnicity          | Oromo                                | 321       | 61.4       |
|                    | Amhara                               | 117       | 22.4       |
|                    | Gurage                               | 41        | 7.8        |
|                    | Tigre                                | 25        | 4.8        |
|                    | Others*                              | 19        | 3.6        |
| Faculty            | Engineering                          | 110       | 21.0       |
|                    | Health sciences                      | 97        | 18.5       |
|                    | Social science and humanities        | 85        | 16.3       |
|                    | Natural and computational            | 89        | 17.0       |
|                    | Business and economics               | 52        | 9.9        |
|                    | School of Law                        | 48        | 9.2        |
|                    | Institute of education               | 42        | 8.0        |
| Residence before campus | Urban                          | 204       | 39.0       |
|                    | Rural                                | 319       | 61.0       |
| Birth order        | Frist or only child                  | 123       | 23.5       |
|                    | Middle                               | 320       | 61.2       |
|                    | Last                                 | 80        | 15.3       |
| Year of study      | First                                | 130       | 24.9       |
|                    | Second                               | 133       | 25.4       |
|                    | Third                                | 107       | 20.5       |
|                    | Fourth                               | 77        | 14.7       |
|                    | Fifth                                | 76        | 14.5       |
| No. of siblings    | Mean ±SD (1.98±1.16)                 |           |            |
| Fathers education  | No formal education                 | 50        | 9.6        |
|                    | Primary school                      | 217       | 41.5       |
|                    | Secondary school                    | 137       | 26.2       |
|                    | Above secondary                     | 119       | 22.8       |
| Mothers’ education | No formal education                 | 62        | 11.9       |
|                    | Primary school                      | 187       | 35.8       |
|                    | Secondary school                    | 235       | 44.9       |
|                    | Above secondary                     | 39        | 7.5        |
| Perceived family monthly income | Bad                                      | 308       | 58.9       |
|                    | Moderate                             | 127       | 41.1       |

(Continued)
However, with respect to gender, ethnicity, year of study, family educational status, perceived family income, and residency, there was no statistically significant difference in the prevalence of SAD (all P values >0.05).

Using logistical regression analysis, three independent variables that were significantly shown to have association in the final model. The risk of social phobia was 1. Ninety-five-fold higher among female students than male students, 1. Eighty-four-fold higher among those with a family history of psychiatric illness than those without, and 2. Ninety-five-fold higher among students who smoked cigarettes in the past 3 months compared to those who did not (Table 3).

Table 3 Logistic Regression Analysis Showing Factors Associated with Social Phobia Among Students in Mettu Health Science Students, Mettu, Ethiopia, 2019 (n=523)

| Variables                  | Category    | COR (95% CI)   | AOR (95% CI)   |
|----------------------------|-------------|----------------|----------------|
| Sex                        | Male®       | 1.78 (1.20–2.64) | 2.04 (1.26–3.28)® |
|                            | Female®     |                |                |
| Previous history of        | No®         | 1.83 (1.02–3.30) | 1.84 (1.01–3.35)® |
| chronic physical illness   | Yes®        |                |                |
| Current tobacco use        | No®         | 1.27 (0.74–2.2)  | 2.95 (1.36–6.40)® |
|                            | Yes®        |                |                |
| Lifetime khat use          | No®         | 1.99 (1.00–3.99) | 1.52 (0.68–3.37) |
|                            | Yes®        |                |                |
| Residence                  | Urban®      | 4.52 (2.69–7.7)  | 1.24 (0.494–3.12) |
|                            | Rural®      |                |                |

Notes: †P value < 0.05. ‡P value < 0.01. VIF 1.06–2.10. Hosmer–Lemeshow goodness of fit test corresponding, P value = 0.77, Reference = †. Abbreviations: COR, crude odds ratio; AOR, adjusted odds ratio.

Using item analysis to examine the items that had the highest and lowest scores (Table 4), the analysis showed that the mean items ranged from 0.56 (SD = 0.81) (item 13: Heart palpitations bother me when I am around people) to 0.99 (SD = 1.07) (item 2: I am bothered by blushing in front of people).

The highest three items in addition to item 2 were item 10 (M = 0.96, SD = 1.10: Talking to strangers scares me) and item 7 (M = 0.85, SD = 1.09: Sweating in front of people causes me distress). This also goes for the highest three items that students reported being very much to extremely experiencing social phobia symptoms over the past week as items 2, 10, and 7 had the highest percentage among all other items.

Table 4 Item Analysis of SPIN Among University Student in Mettu (n=523)

| Item                                                                 | Mean | SD    |
|----------------------------------------------------------------------|------|-------|
| 1 I am afraid of people in authority.                                | 0.68 | 0.976 |
| 2 I am bothered by blushing in front of people.                      | 0.99 | 1.073 |
| 3 Parties and social events scare me.                                | 0.82 | 0.957 |
| 4 I avoid talking to people I do not know.                           | 0.75 | 0.961 |
| 5 Being criticized scares me a lot.                                  | 0.85 | 0.959 |
| 6 Fear of embarrassment causes me to avoid doing things or speaking to people. | 0.80 | 0.921 |
| 7 Sweating in front of people causes me distress.                    | 0.85 | 1.009 |
| 8 I avoid going to parties.                                           | 0.79 | 0.892 |
| 9 I avoid activities in which I am the center of attention.          | 0.79 | 0.993 |
| 10 Talking to strangers scares me.                                   | 0.96 | 1.109 |
| 11 I avoid having to give speeches.                                  | 0.83 | 0.990 |
| 12 I would do anything to avoid being criticized.                    | 0.65 | 0.925 |
| 13 Heart palpitations bother me when I am around people.             | 0.56 | 0.811 |
| 14 I am afraid of doing things when people might be watching.        | 0.59 | 0.885 |
| 15 Being embarrassed or looking stupid is my worst fear.             | 0.67 | 0.931 |
| 16 I avoid speaking to anyone in authority.                          | 0.72 | 0.888 |
| 17 Trembling or shaking in front of others is distressing to me.      | 0.78 | 0.955 |

Notes: Copyright ©, Jonathan Davidson. 1995, 2008, 2015. All rights reserved. Permission to use the SPIN must be obtained from the copyright holder at mail@cd-risc.com. The SPIN may not be reproduced or transmitted in any form, or by any means, electronic or mechanical, or by any information storage or retrieval system without permission in writing from the copyright holder.
Correlating SPIN and LSAS with QOL Scores

As seen in Table 6. Regarding correlation of LSAS scores to QOL scores, they were negatively correlated with respect to physical health, psychological health, social relationship and environment, although not significant in majority of the domains, except the psychological domain.

Again, SPIN scores were also negatively correlated with QOL scores in all areas. Thus, social phobia was associated with reported deterioration in physical, psychological health, social relationship and environmental functioning. SPIN and LSAS scores were found to be more strongly correlated with psychological domain scores and SPIN score were more strongly correlated with physical health domain compared to other domain (Table 6).

Discussion

This study aims on the prevalence of social phobia and its impact on quality of life among university students in Mettu, South western, Ethiopia. The prevalence of social phobia varies widely among different countries. In this study, social phobia was found in 26% of subjects, much more than other studies among undergraduate university students in different settings.18,28-31 Regarding the severity of social phobia, using LSAS score, the majority of the students have mild forms of social anxiety disorder. In other words, levels of social anxiety symptoms show about 17.4% of them had moderate symptoms, which is in line with the study undertaken at the University of Jordan (6.8%). However, the finding was lower than study done in Woldia, Ethiopia (27.5%),15 Saudi Arabia,
Different studies have shown an association of social phobia with gender. The results of the current study, which showed higher social phobia scores of female students compared to their counterparts. This was in line with the international report of different countries such as India, Turkey, German. However, in one study social phobia prevalence is found to be higher in men in studies of prevalence conducted with clinical samples.

The current study shows an association of cigarette smoking and social anxiety disorder. This finding was in agreement with international report such as in the USA and Turkey. The reason behind might be related to smoking, which used for its reinforcing effect, by socially anxious people to elevated negative affect especially for social interaction.

In contrast to studies done in Australia and Swedish, SAD was more prevalent among students of engineering faculties than students of social science and humanities faculties. It may be related to the consequences of social anxiety on academic performance during pre-engineering years and career choices made thereafter, in addition to a larger quota of students in the school, as this stage greatly matters their life on the campus, particularly.

Considering birth order, SAD was more prevalent among first or only child than being middle or last child. Which was in agreement with study done in Egypt (birth order). It was hypothesized that the first-born child will have a higher level of social anxiety than a non-first born child.

In terms of age, the current study shows significant association, with higher prevalence of SAD among students in the age group of 18–20 years as compared to older age groups. The finding was in accordance with many of the prior studies, shown an early onset of social anxiety symptoms.

Family history of psychiatric illness was found to have significant association with SAD. This could be explained by studies showed association of social phobia and genetic inheritability, although the underlying mechanisms remain unclear.

The most commonly reported feared social situations in the target sample were being criticized by others or fear of parties and social events, followed by doing things or speaking to people and the most commonly avoided situations were talking to strangers followed by being a center of attention. These findings were consistent with result of earlier studies. This is because college years are a critical period to socialize themselves, particularly via social interaction.

Again their expectation matter the way they interact, they may avoid such interaction because of negative evaluation.

The Effects of Social Phobia on Quality of Life

To the best of the author’s knowledge, the present study is the first to investigate the direct relationship between social phobia and its impact on quality of life among university students in Ethiopia. In the present study students with social phobia had lower scores on all areas of life quality, including physical and psychological health, social relationships, and the environment than those without social phobia.

Results of an epidemiological study from report that students with social phobia have reduced quality of life in all domains as compared to those without social phobia as in Swedish, and California, and Canada. Similarly, in the current study, students with SAD were more likely than students without SAD to be unsatisfied with their health, suffer from depression and psychological distress, rate their quality of life as poor, and to be unsatisfied with many aspects of life. For example, mean ± standard deviation score of students (2.96 ± 1.42) and (2.11 ± 1.24) with SAD reported dissatisfaction with personal relationship and health, respectively.

In sum, our study reported high level of social phobia. These have an impact on impairing health status. Particularly mental health, and predispose students to more complicated dysfunction in different areas of functioning, dropping out of school and letting them disable or dependent.

Study limitations included that this sample was only for university students and did not represent the general population. From an epidemiological perspective, it is necessary to study a community representative sample that best represents the entire population.

Conclusions

The current study shows high prevalence of social phobia among the university students and its significant negative effects on quality of life. These findings necessitate more extra efforts in recognizing and treating social anxiety disorder in higher academic institutions. Prompt identification and treatment will help in reducing the bad consequences of this common condition.

Abbreviations

ANOVA, analysis of variance; CI, confidence interval; DSM-5, Diagnostic and Statistical Manual of mental
disorders Fifth Edition; OR, odds ratio; MINI, Mini International Neuropsychiatric Interview; LSAS, Liebowitz Social Anxiety Scale; SAD, Social Anxiety Disorder; SPIN, Social Phobia Inventory; SPRQ, Social Phobia Screening Questionnaire; SPSS, Statistical Package for Social Science; UK, United Kingdom; USA, United States of America; WHOQOL-BREF, World Health Organization Quality of Life Scale – Brief Version.

Data Sharing Statement
The data that support the findings of this study are available from the Mettu University, but restrictions apply to the availability of these data, which were used under license for the current study and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of Mettu University.

Ethics Approval and Consent to Participate
The study was carried out in accordance with the principles of the Declaration of Helsinki. Ethical clearance is obtained from the ethical review board of faculty of health and medical sciences of Mettu University. An official letter was obtained from Mettu University president’s office, and an approbation letter was obtained from the head of the department of psychiatry. Selected students were informed about the nature, purposes, benefits and adverse effects of the study and invited to participate. Confidentiality was ensured and all related questions they raised were answered. Participation was completely voluntary, with no economic or other motivation, and each participant signed written informed consent for their participation. Participants had the right to refuse or discontinue participation at any time according to their choice.

Acknowledgments
We would like to thank Mettu University for providing ethical approval to conduct this research. Our deepest thanks go to all study participants, data collectors and supervisors who spent their valuable time for the good outcome of the research work.

Author Contributions
MAH wrote the protocol, design the study, organized the data collection process, analyzed the data, and reviewed and edited the manuscript. MAH and ZA contributed to an analysis of the data, drafted the manuscript, critically reviewed and approved the manuscript for publication. All authors contributed to data analysis, drafting or revising the article, gave final approval of the version to be published, and agree to be accountable for all aspects of the work.

Funding
No institution or organization funded this study.

Disclosure
The authors declare that they have no competing interests, financial or otherwise.

References
1. Mäki P. Social phobia and depression in adolescence in general population and 2 year follow up. Social phobia and depression in adolescence in general population concurrent associations. Acta Univ Tampere. 2015;2040.
2. Akçağoyun F. Analysis of self-esteem levels of students in physical education and sports high school. J Educ Train Stud. 2018;6(2):73. doi:10.11114/jets.v6i2.2951
3. Ahmad RJ, Bayan H, Faque T, Seidi PM. Prevalence of social anxiety in students of college of education – university of Garman. Res World J Arts Sci Commem. 2017;VIII(1):78–82.
4. Goodwin RD, Faravelli C, Rossi S, et al. The epidemiology of panic disorder and agoraphobia in Europe. Eur Neuropsychopharmacol. 2005;15(4):435–443. doi:10.1016/j.euroen.2005.04.006
5. Alarcon RD. Synopsis of psychiatry: behavioral sciences and clinical psychiatry, 6th ed. Am J Psychiatry. 1992;149:972–974 p. doi:10.1176/ajp.149.7.972
6. Stein MB, Kean YM. Disability and quality of life in social phobia: epidemiologic findings. Am J Psychiatry. 2000;157(10):1606–1613. doi:10.1176/appi.ajp.157.10.1606
7. Green-Landell M. Social anxiety disorder in Swedish adolescents: prevalence, victimization & development [Internet]. Unityrc, Linköping, Sweden; 2010. Available from: http://www.diva-portal.org/smash/record.jsf?pid=diva2:329270. Accessed June 5, 2020.
8. Stein DJ, Lim CCW, Roest AM, et al. The cross-national epidemiology of social anxiety disorder: data from the World Mental Health Survey Initiative. BMC Med. 2015;17:1–21.
9. Tillfors M, Furmark ÅT. Social phobia in Swedish university students: prevalence, subgroups and avoidant behavior. Soc Psychiatry Psychiatr Epidemiol. 2007;2:1–7.
10. Mustafa RB, Mansour AMH. Social phobia among university students in Jordan. Life Sci J. 2014;11(2).
11. Hakami RM, Mahfouz MS, Adawi AM. Social anxiety disorder and its impact in undergraduate stu- dents at Jazan University, Saudi Arabia. Ment Illn. 2017;9:42–47. doi:10.1108/MI.2017.7274
12. Djidonou A, Tchégonsi FT, Adoukonou T. Associated factors and impacts of social phobia on academic performance among students from the university of Parakou (UP). Open J Psychiatry. 2016;6:151–157. doi:10.4236/ojpsych.2016.62018
13. Bella TT, Omibodun OO. Social phobia in Nigerian university students: prevalence, correlates and co-morbidity. Soc Psychiatry Psychiatr Epidemiol. 2009;44(6):458–463. doi:10.1007/s00127-008-0457-3
14. Reta Y, Ayalew M, Yeneabat T. Social anxiety disorder among undergraduate students of Hawassa University, College of Medicine and Health Sciences, Ethiopia. Neuropsychiatr Dis Treat. 2020;16:571–577. doi:10.2147/NDT.S235416
15. Mekuria K, Mulat H, Derajew H, et al. High magnitude of social anxiety disorder in school adolescents. *Psychiatry J*. 2017;5.
16. Desalegn GT, Getinet W, Tadie G. The prevalence and correlates of social phobia among undergraduate health science students in Gondar, Gondar Ethiopia. *BMC Res Notes*. 2019;12(1):1–6. doi:10.1186/s13104-019-4482-y
17. Elalky MI, Abed Z, Othman E, Eita LH. The effect of birth order and socio demographic characteristics on anxiety and depression among adolescents. *Int J Nurs Sci*. 2015;5(3):110–121.
18. Lampe L, Slade T, Issakidis C, Andrews G. Social phobia in the Australian National Survey of Mental Health and Well-Being (NSMHWB). *Psychol Med*. 2003;33(4):637–646. doi:10.1017/S0033291703007621
19. Shah PS, Kataria L. Social phobia and its impact in Indian university students. *Internet J Ment Health*. 2010;6(2):1–8.
20. Davidson JRT, Hughes DL, George LK, Blazer D. The epidemiology of social phobia: findings from the Duke Epidemiological Catchment Area Study. *Psychol Med*. 1993;23(3):709–718. doi:10.1017/S0033291700025484
21. Cougle JR, Zvolensky MJ, Fitch KE, Sachs-Ericsson N. The role of comorbidity in explaining the associations between anxiety disorders and smoking. *Nicotine Tob Res*. 2010;12(4):355–364. doi:10.1093/ntr/ntq006
22. De Menezes GB, Fontenelle LF, Versiani M. Trans-cultural aspects of social anxiety disorder and related conditions: a Brazilian case series and a review of international clinical studies. *J Bras Psiquiatr*. 2006;55(3):196–200. doi:10.1590/S0047-20852006000300004
23. Sartorius N, Orost B. Depression comorbid with anxiety: results from the WHO study on psychological disorders in primary health care. *Br J Psychiatry*. 1996;168:38–43.
24. Management B, Abdul Z, Hajure M, Desalegn D. Suicidal behavior and associated factors among students in Mettu University, South West Ethiopia, 2019: an Institutional Based Cross-Sectional Study. *Psychol Res Behav Manag*. 2020;13:233.
25. Connor K, Davidson J, Sherwood A, Foa EB. Psychometric properties of the Social Phobia Inventory (SPIN): Psychometric properties of the Social Phobia Inventory (SPIN): new self-rating scale. *Br J Psychiatry*. 2000;176:379–386. doi:10.1192/bjp.176.4.379
26. Nagata T. Social Anxiety Disorder. *Setishin Shinkigaku Zasshi*. 2015;117(4):283–291
27. Orley J. WHOQOL-BREF: Introduction, Administration and Generic Version. World Health Organization; 1996.
28. Free TA. Primary care of the child with a chronic condition. *Nurse Pract*. 1994;19(2):55.
29. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Arch Gen Psychiatry*. 2009;66:593–602. doi:10.1001/archpsyc.66.6.593
30. Wittchen HU, Jacob F. Size and burden of mental disorders in Europe - a critical review and appraisal of 27 studies. *Eur Neuropsychopharmacol*. 2005;15(4):357–376. doi:10.1016/j.euroneuro.2005.04.012
31. Wilson I. Screening for anxiety disorder in first year university students. *2005;34(11):983–984.
32. Alkhalfiah FA, Alsalamh NS, Alhomaidhy MA. Prevalence of social phobia among medical students in Saudi Arabia. *Egypt J Hosp Med*. 2017;69(5):2412–2416. doi:10.12816/0041685
33. Gültekin BK, Dereboy IF. The prevalence of social phobia, and its impact on quality of life, academic achievement, and identity formation in university students. *Turk Psikiyat Derg*. 2011;22(3):150–158.
34. Education P, Kahramannmara S, Education P, Kahramannmara S. Analysis of social phobia levels of university students who and who do not do. *Int J Bus Manag Soc*. 2016;7(3):72–77.
35. Beidel DC, Turner SM, Young BJ, Ammerman RT, Sallee FR, Crosby L. Psychopathology of adolescent social phobia. *J Psychopathol Behav Assess*. 2007;29(1):47–54. doi:10.1007/s10862-006-9021-1
36. Uysal Ş, Özen H, Madenoglu C. Social phobia in higher education: the influence of nomophobia on social phobia. *Glob eLEARNING J*. 2016;5(2):50–51.
37. Rapee RM. Recent advances in the treatment of social phobia. *Aust Psychol*. 1993;28(3):168–171. doi:10.1080/000486793093258897
38. Pearson TR. Anxiety and birth order: does birth order play a role in a child’s anxiety level? 2009.
39. Kendler KS, Neale MC, Kessler RC, Heath AC, Eaves LJ. The genetic epidemiology of phobias in women: the interrelationship of agoraphobia, social phobia, situational phobia, and simple phobia. *Arch Gen Psychiatry*. 1992;49(4):273–281. doi:10.1001/archpsyc.1992.01820040025003
40. Stein DJ, Vythilingum B. Anxiety disorders and gender. *Anxiety Disord Gend*. 2015;1–168.