

Factors Affecting Female Students' Academic Achievement at Bahir Dar University

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Abstract

The main purpose of this study was to investigate the on-campus and off-campus factors responsible for female students' low academic performance and consequently high attrition. Based on review of the related literature, basic research questions were formulated. For data gathering, both quantitative and qualitative research methods were employed. The quantitative data were obtained through questionnaire. A pilot study was conducted to validate the instrument using 30 second year university students and was followed by the main study. The final version of the questionnaire was administered for 600 undergraduate students at Bahir Dar University. The qualitative instrument constituted of document analysis, student records, and interview. The SPSS 13.0 was used for data analysis. Statistical techniques such as Percentage, Cross Tabulation, Pearson Product Moment Correlation, t-test and Regression Analysis have been used for data analysis. Though the rate of attrition decreases, the number of female students' attrition has increased. The problems female students encountered constitute personal, university related factors, academic factors and economic factors. Previous academic background (high school) is one of the major factors for their low academic performance. The off-campus factors that affect female students' academic performance include family background, Disco and traditional Music Houses and economic problems. In conclusion, the majority of problems female students encounter and those factors that affect female students' academic performance are personal and the other problems are caused by the university environment.

1. Introduction

Education is one of the social factors whereby gender disparity is reflected. The number and proportion of educated females is very low. As the grade level of education increases, the number of female students starts to decline. Consequently, higher education remains the level of learning where females are less represented both as students and staff. The very few women that are fortunate enough to join higher learning institutions can be characterized by lower academic performance and higher forced withdrawal. Consequently, such inequity in higher education representation has a serious life-long impact on their opportunities to participate in the country'

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s political power sharing, economic privileges as well as social representations. Thus, this study focuses on assessing factors affecting female students' academic achievement and causes of higher attrition at Bahir dar University.

Bahir dar University is one of well established public universities in Ethiopia. Its student population is increasing from time to time. Currently, there are about 40,000 students at undergraduate and post graduate level in various modes of delivery. This student number is the second in the country next to Addis Ababa University.

2. Statement of the Problem

The question of equality in education should not be measured only by the number of enrollment and by the school inputs because some inputs may be of greater importance to certain groups of students. The new definition of equality is stipulated in such a way that the students are equal when the educational outcomes of these students are essentially the same for both males and females. Therefore, it is unwise to think gender equality in education by simply counting the number of female students enrolled in higher education institutions. Equality of sexes can be ensured if the schools identify and solve the factors that affect females' academic performance and thereby minimize female attritions. However, schools and universities, because of their biased treatments and some other external factors, become centers of gender disparity.

For instance, some studies made in USA revealed that children of both sexes start school with roughly similar potential to learn. Their scores on IQ tests were approximately equivalent when gender difference was controlled. Yet, test scores of female students decrease over time until when children move up the ladder in the education arena. This implies that there are on-campus and off-campus factors that differently treat students across gender (Feldman, 1990).

Similarly, the document analysis made on students' results at Bahir dar University has portrayed that the attrition rate of female students at Bahir Dar University has been found to be higher compared to male students. The results in Table 1 revealed that female students' attrition rate has drastically decreased from time to time. The rate of attrition ranged from 39.8% for Faculty of Business and Economics in 2006/7 academic year to 4% for Agriculture and Environmental Sciences in 2011/12. The rate has declined, though inconsistently. However, since the number of females' enrollment is increasing from year to year, significant numbers of female students were still academically dismissed from the university. Attrition rate varied from faculty to faculty. It seems high at Faculties of Business and Economics, Law and Education and Behavioral Sciences. Unlike expectations, the worst attrition rate was not recorded at faculties of Engineering and Medicine and Health Sciences. One of the reasons for the attrition rate to decline may be that the university has set evaluation policy which enforces teachers so as not to give more than 10% percent of failing grade (D and F). Another reason presumed to decrease female students' attrition rate might be that the university has introduced continuous assessment which is believed to enhance students' engagement in academics and there by increases their achievement.

Table 1: Attrition Rate of Female Students at Bahir Dar University from 2006/7-2011/12

Faculty		Academic Years						
		2007	2008	2009	2010	2011	2012	Total
Agriculture	Enrollment	48	84	103	210	138	275	858
	Attrition	15	17	21	30	6	11	100
	%	31.3	20.2	20.4	10	4.3	4	
Education	Enrollment	53	615	455	1350	514	1251	4238
	Attrition	20	165	55	80	43	68	431
	%	37.7	26.8	12	5.9	8.4	5.4	
Business &Eco	Enrollment	93	380	385	1746	290	782	3676
	Attrition	37	114	84	112	17	57	421
	%	39	30	21.80	6.40	5.90	7.3	
Medicine	Enrollment			6	14	11	35	66
	Attrition			0	1	1	3	5
	%			0	7.10	9.1	8.60	
Engineering	Enrollment	2117	173	150	515	134	1093	2282
	Attrition	52	40	34	50	15	58	249
	%	24	23	22.70	9.70	11.20	5.30	
Law	Enrollment	59	61	48	101	378	395	1042
	Attrition	19	20	11	11	36	37	134
	%	32.20	32.20	22.90	10	9.50	9.40	

From the literature, various factors have been stated to be the causes for lower academic performance and higher attrition rates of female students. For instance, the general institutional environment, the overall interaction and practice the students make with school personnel, institutional rules and regulations, sanctions, and the organizational structure. It is long noted that the relationship between students and their universities is one significant predictor of social and academic development that the structure of the university unfairly treats students based on their background (Apple, 1980).

Stereotypes in higher institutions, based on students' characteristics serve as an important avenue in affecting females' academic performance. Eliminating stereotypical attitudes towards various groups that are represented in the classroom is a recognized avenue to increase females' academic performance and thereby minimize their attrition rate in higher institutions (Banks and Banks, 1997).

Furthermore, teacher-student interactions, peer interaction and lack of adequate orientation are presumed to be factors affecting females' education. Thus, this study plans to identify the major factors that influence females' academic performance in the Ethiopian higher learning institutions.

Traced on the theoretical frameworks and practical and statistical evidences, the following research questions were formulated.

1. What are the on-campus factors that affect the academic performance of female university students and cause higher attrition rate?
 - 1.1 What is the trend of attrition at Bahir Dar University?
 - 1.2 What are the on-campus factors that affect the academic performance of female University students?

- 1.3 Are there unfavorable University environment that affect females' education?
- 1.4 Do female students receive adequate support from teachers and friends?
- 1.5 Are female students victims of sexual harassment and verbal abuse?
2. What are the off-campus factors that affect the academic performance of female University students?
 - 2.1 What are the surrounding environmental factors that affect females' academic performance?
 - 2.2 Does female students' residence affect their academic performance?

3. Research Design

This study has focused on the major factors that affect female students' academic performance and causes of attrition in Bahir Dar University. Even though the female students' problems are multifaceted, in this study attempts were made to examine on campus and off-campus factors.

The quantitative instrument was a questionnaire. This instrument was used to collect data about the major problems that challenge female students at Bahir Dar University, and the major factors that affect females' academic performance. The qualitative part constituted document analysis and interview.

4. Populations, Samples and Sampling Techniques of the Study

Students of Bahir Dar University were the focus of this study. Second year and above undergraduate students were selected for the reason that their stay in the university might have let them clearly understand the factors that affect female students' academic performance and causes of attrition.

Data were collected from six, out of 16, randomly selected faculties. These faculties included Education and Behavioral Sciences, Engineering, Medicine and Health Sciences, Agriculture and Environmental Sciences, Law and Business and Economics.

The questionnaire was distributed to 20 students in the classroom randomly. In the sections where there were adequate numbers of females, 15 females and 5 males were selected arbitrarily in the classroom. However, when the number of female students in the sections was found below 15, the number of male students was increased. In total, 600 (400 females and 200 male students) students from the University filled the questionnaire. The questionnaire constitutes issues about factors affecting female students' academic achievement, their relationship with male students and teachers, the nature of university environment and availability and types of sexual harassment in the university.

5. Data Gathering Instruments

In this study, four data gathering instruments were used. They were questionnaire, document analysis, observation and interview. The way such instruments were developed and scored is explained hereunder.

5.1 Quantitative Instrument

Questionnaire

The questionnaire was constructed based on theoretical and empirical grounds about factors affecting female students' academic performance and causes of attrition. A total of 179 items were developed. The questionnaire included background information (10), measure of parents education level (10), recreation centers (12), money spending (7), prevalent problems (18), university environment (11), nature of affirmative action (8), attitude towards affirmative action (16), factors for low performance and attrition (17), support from friends (15), support from teachers (11), locus of control (20).

5.2 Qualitative Data Gathering Instruments

i. Document Analysis

Document analysis was carried out to examine the rate of female students' attrition from Bahir Dar University. To see the trends of female students' attrition, the documents from the Registrar of the University were consulted. For this purpose documents from 2006-2012 were analyzed.

ii. Interview

Interview was conducted with University Officials, Gender officers, Dean of Students, and female students. The results of interview were employed to substantiate the results gathered through questionnaire and document analysis.

iii. Focus group discussion

Focus group discussions were held with gender office heads, gender club members, female students and students' council members. The issue of discussion was about the problems female students face in the university.

6. Data Analysis Techniques

In this study, both quantitative and qualitative data analysis techniques were employed. The data gathered through the questionnaire from students were analyzed using mean, standard deviation, t-test, and linear regression analysis. The SPSS 13.00 was employed to analyze the quantitative data.

The data collected through document analysis was analyzed qualitatively through narration and using percentage. The interview and the focus group discussions were also analyzed qualitatively and used to support the findings obtained through questionnaire and document analysis.

7. Results

This part deals with the presentation of the data gathered through various instruments. The results are presented hereunder.

Factors for Low Achievement and Causes of Attrition

The data obtained from open-ended questions have pointed out that the problems female students face in the university consists 17 types of problems that are categorized under four themes. They are personal, university environment, academic and economic factors as indicated below.

i. Personal related factors

- Lack of self confidence
- Lack of adequate effort
- Carelessness
- Lack of ability to be competent
- Homesickness
- Being addicted to drinking, smoking, disco houses, etc
- Tension
- Falling in love easily
- Inability to become well planned and organized

ii. University related factors

- Lack of proper reading place where they can use freely
- The influence of male students
- The influence from male teachers and other staff members and youth from surrounding environment
- Lack of proper guidance
- Academic advising problem

iii. Academic related factors

- Difficulty of education
 - Poor high school performance
- iv. Economic related factor
- Shortage of money to support one self

Of these problems, personal factors such as lack of self confidence, lack of adequate effort and carelessness constitute the first, the second and the third crucial problems in order that affect female students' academic achievement and thereby increase their attrition in the university.

In addition to the personal problems, it was reported that lack of support from teachers, absence of concerned people in the university about female students' problems and absence of adequate counseling services are problems mentioned by students.

Sexual harassments, domestic violence, dating violence and stalking are serious problems on faculty campuses. The study has portrayed that 35 percent of female respondents were victims of sexual harassments or attempted sexual assault per year and in nearly most cases it was by an acquaintance, based on ethnicity, coming from same place, study group, and rarely outside of the campus by students. The types of sexual harassments include:

- Showing sexually appealing writings and magazines
- Telling sex related jokes to female students without their consent
- Disseminating female students' photographs.
- Sending sex related messages using electronics instruments
- Touching female students' body during practical works and laboratory training
- Assigning and using sex related nick names to female students
- Harassing females through continuously following their activities
- Hiding learning materials and forcing female students for sexual practice

Of these cases, 65 percent of reported sexual assaults against female students in the university are perpetrated by someone known to the victim, and nearly half of such sexual assaults occur during day time.

Correlation analysis (Table 2) demonstrated important relationships. University Grade Point Average (GPA) is highly and significantly correlated with support from friends, and teachers, favorable perception of university environment and preparatory school leaving certificate exam results. However, students' GPA negatively but significantly correlated with the problems students encounter in the university. That is, the more students believe that they have problems in the university; the lower is their university GPA. The correlation ranged from $r = -0.118$ with problems students encounter in the university, to 0.091 with support from friends.

Table 2: Correlation among Support Friends and Teachers, Problems Females Encounter in Higher Learning Institutions, their Perception of University Environment, Preparatory School Leaving Certificate Exam and their GPA

GPA	1.00					
Friend support	0.091	1.00				
University Env.	0.071	0.132	1.00			
Problems	-0.118	0.304	0.223	1.00		
Teacher support	0.081	0.365	0.344	0.171	1.00	
Entrance exam	0.209	0.076	0.075	0.103	0.122	1.00
	GPA	Friend support	University Env.	Problems	Teacher support	Entrance exam

The results in Table 3 portray that except students' age the rest of factors, such as entrance exam, conduciveness of university environment, support from friends, support from teachers, and problems students encounter in their university life significantly predict students' academic performance in higher learning institutions of Ethiopia.

Table 3: Predictors of Students' Academic Performance in Higher Learning Institutions

Mode: variable	B	t	Sig.
University environment	-0.092	-2.447	0.015
Problems in the university	-0.098	-2.633	0.009
Support from Friends	-0.113	-2.923	0.004
Support from teachers	0.097	2.462	0.014
Entrance exam	0.226	6.462	0.000
Age	0.036	1.035	0.301

Two t-tests run to determine if there are statistically significant differences between the means of male and female students support services given by their friends and teachers depicted that the mean differences between male and female students are statistically significant at $p < 0.05$ for friends support and $p < 0.01$ for support from teachers in favor of males.

Table 4: t-test on Friends and Teachers Support between Sexes

Source	Male		Female		df	F	Sig
	Mean	SD	Mean	SD			
Support from friends	33.96	27.68	30.7	29.22	598	2.853	0.019
Support from teachers	78.54	9.1	73.59	9.66	598	1.308	0.000

Table 4 portrays that there are significant mean differences between male and female students in the support they receive from teachers and friends in favor of males.

8. Discussion of the Findings

What is the Trend of Attrition in Bahir Dar University?

The registrar office has attributed decrease in female students' attrition rate (Table 1) to the effective tutorial programs given in the university. Female students may leave university because of sexual harassment and the refusal of administrators to correct it. Feldman (1990) explained that sexual comments or jokes, sexist terms, sexual rumors, graffiti, leering, sexually graphic notes, and physical sexual harassment such as touching, grabbing, or pinching are precipitating factors for female students attrition. The findings of the current study indicated that such problems do persist in the higher learning institutions of Ethiopia. For instance, as it is indicated in open ended question responses, verbal and physical harassment by male students, teachers and other university staffs and rape are mentioned as major problems female students encounter at Bahir Dar University.

This result was substantiated by participants of the focus group discussion (FGD). Some female students reported that girls are mostly victims of sexual harassments by senior male students and some instructors who mostly target to use their grades as a means. The problem related with teachers become serious when we apply for university administration to take measures. The officials request us to give our witness. However, most of the female students did not take courage to expose themselves in front of some people and as a result refused to give their witnesses about what the instructors had committed on them. As a result of these harassments, female students have indicated that they have stopped to go to libraries, laboratories, study spaces and students lounges for recreation. The FGD has also portrayed that the University management is not working enough to help female students in real sense. Their support is verbal and for the sake of reporting believing that it is a policy issue. Practically, the university management is observed marginalizing female education centers, they claimed.

As a result of sexual harassment, students often stay in dormitory; some even miss class, or do not contribute. They may experience difficulty concentrating on academic work or suffer lowered self-esteem and self-confidence (Banks and Banks, 1997). Though the current study has not assessed the direct relationship between female students' level of harassment and their self-esteem, the findings of the current study revealed that lack of self-confidence is the first major factor that affects their academic performance. Lack of confidence might develop on females' dependency on male students which possibly may expose them to deal with males for sexual matters.

Does the University Environment Affect Students' Academic Performance?

Among the 17 factors that affect female students' academic achievements, five of them are directly related with the university environment. This implies that the university social climate is not comfortable for female students which significantly affect their academic achievement.

This result contradicts with the theoretical framework that states feelings of personal affirmation and comfort create the conditions of personal connectedness that is essential to students' taking ownership in learning, which, in turn, leads to more sustained attention, effort, time on task and improved task mastery and academic achievement.

The quantitative data analysis has also proved this fact to be true. The correlation analysis has shown that students' beliefs about the conduciveness of the university environment is highly and positively correlated with their GPA (Table 2). The Linear regression analysis has pulled out conduciveness of university environment as one significant variable that predicts female students' university GPA. Besides, peer support and support from teachers, which are practically part and parcel of the university environment, are significant predictors of female students' academic achievement in the university.

The mean difference between male and female students on their perception of the school environment is statistically significant in favor of males. Male students perceived that the school environment is more conducive than their female counterparts.

The results of the current study are not different from the already established theoretical frameworks and research findings. There is growing evidence that the school environment may act as a threat to some group of students. For instance, Brookover cited in Feldman (1990) has proved that unfavorable social environment is likely to distract the female students from the task at hand, to the detriment of performance and to influence their self-concept. Put in a different way, the context of higher education institutions serves as a tracking system to perpetuate the existing patterns of social stratification, benefiting males (Ibid). The school environment in the higher education institutions is a system of stratification that embodies differences of prestige and status among sexes.

While the available literature ascertains that school programs that promote self-efficacy, self-confidence, and high expectations are as important as programs that provide opportunities for higher academic achievement and career success, the current findings have indicated that personal problems such as fear of failure and lack of self-confidence are the first top most important factors that impede female students' academic achievement at Bahir Dar University and probably in higher learning institutions of Ethiopia.

Do Female Students Receive Adequate Support from Teachers and Friends?

It is believed that as students are integrated into and become more interdependent with both academic and social elements of a university, the probability that the student will leave the university declines (Prince, 1993). Astin (1975) also found that involvement was critical to a student's decision to persist or drop out from school. In other words, involvement with faculty and student peer groups encourages participation in social and intellectual life of a college and, therefore, helps learning and persistence in college (Astin, 1993).

Among school factors that promote female students' success in higher education the most critical is sound counseling, and providing staff training to help teachers serve female

students more effectively (Nelson, 1993). The significant difference male and female students in getting support from friends and teachers (Table 4) implies that male students received more support from friends and teachers than their female counterparts. In other words, female students received less information, shared less experience about the academic and social life in higher education and less guidance from their friends and teachers. In short, females are at disadvantageous position. The current findings have proven that the greater support female students receive from peers and teachers, the higher is their university GPA.

Peer attitudes and support also contribute to education aspirations among females. A major part of what students learn comes from friendships formed outside the classroom and the strategies of peers for coping with school (Willingham & Cole, 1997). Female students who are parts of peer groups that participate in and are accepted by the school do better in their classes and future jobs than students in peer groups that reject the school and feel rejected by it.

Females with close friends who are school oriented and consider attending College are more likely to graduate. This implies that the support of schools and peers is very important to female students in completing higher education and taking nontraditional career paths (Merten, 1997). The current finding (Table 2) has also proved that peer support and support from teachers have significant effects on female students' academic performance in higher learning institutions. Other findings have indicated that lack of academic support or staff hostility as a reason for female students' leaving the higher learning institutions. This statement was strengthened by the findings of the current study. That is, the support given by teachers to female students was found less than to their male counterparts. Furthermore, the regression analysis has portrayed that the support from teachers affects female students' academic achievement as it is explained by their university GPA.

Most of the Female Education center coordinators indicated that the office is poorly organized and not well equipped with both human and material resources. These offices are running with shortage of budget and this holds true to all higher learning institutions in the country.

Off-campus factors affecting female students' persistence in higher learning institutions

The majority of participants in the recreation places like the Disco Houses were university students. One observation has indicated that nine female students have rented a house outside of the university so as to pass the nights after enjoying in Disco houses. This problem has also been indicated by students as one of the major problems of female students. The interview made with some people (whose identity should not be expressed) revealed that some female students work as sex workers to get money.

Another human right issue to be considered in higher learning institutions is reproductive health right of female students. Some female students give birth in the universities where there is no adequate maternal care. The interview with the personell of the university students' clinics has proved that pregnancy is one of the serious problems that female students encounter

in higher learning institutions. The Nurses working in the university clinics have reported that pregnancy is a serious problem in the university. On average, five female students come to the clinics seeking help and advice due to pregnancy cases. Specially, it is sever after freshman students are admitted to the university. This might be attributed to the fact that this is the time that the majority of female students become free of parental control without having adequate awareness about how to deal with opposite sex mates. This issue has been raised by female students as a major problem. The other possible reason may be that female students, immediately after admission, might not get adequate social and academic orientation that helps them to adjust to the requirements of life in the universities, which in turn may expose them for bad senior students.

Other factors that may also affect retention and academic performance include institutional type, financial aid, sense of community in residence halls and self-efficacy. The results obtained in the current study have also affirmed the above findings. Both the quantitative and qualitative results have proved that previous background has significant impact on female students' academic achievement. Younger women were likely to leave school because of family and financial related reasons. Older women were more likely to leave because of practical difficulties or course dissatisfaction. The findings of this study have also portrayed that economic problems and difficulties of education (courses) are some of the factors that affect female students' academic achievement.

When female students do not see possibilities for doing well in school or pursuing postsecondary education or a career, they often leave school and start a family. Feldman (1990) suggest teen mothers do not have to leave school if their families are able to support them and programs allow them to continue taking courses toward graduation. The current study also ascertains the above statements. That is, out of 346 female students who were academically dismissed from higher learning institutions of Ethiopia, the majority (270) have mothers who are household wives and farmers. This implies that one of the factors for female students' low academic performance and high attrition might be their family background.

9. Conclusions

Though the rate of attrition decreases the number of female students' attrition has increased. The findings of the study indicated that the problems female students encounter in Bahir Dar University constitute personal, university environment, economic and family related problems. Each of these categories contains one or more specific problems. The first problem is found to be fear of failure. The second and the third problems constitute economic and being placed in the departments they are enrolled. The interview made with female students has revealed that previous academic background (high school) is the major factor for their low academic performance and thereby their dropping out in higher learning institutions. There exists a significant correlation among the support from teachers, support from friends, problems female students encounter in higher learning institutions, and their entrance exam results with

their University GPA. The regression analysis has pulled out all the above variables as important predictors of female students' academic performance (University GPA). External factors such as Disco and traditional Music Houses have detracted females from their persistence on academic work.

In conclusion, the majority of problems female students encounter and those factors that affect female students' academic performance are personal and the other problems are caused by the university environment. Furthermore, the off-campus factors that affect female students' academic performance include family background, Disco and traditional Music Houses, economic problems and the role of brokers to initiate female students to work as sex workers.

References

- Apple, M.W. (1980). *Ideology and Curriculum* (2nd ed.). New York; Routledge.
- Astin, A.W. (1975). *Preventing Students from Dropping Out*. San Francisco: Jossey- Bass.
- Astin, H.S. (1993). *Women and Achievement: Occupational Entry and Persistence*. Paper presented at the Eastern Psychological Association.
- Banks, A.J. and McGee Banks, A.C. (1997). *Multicultural Education Issues and Prospects* (3rd ed). U.S.A; John Wiley and sons. Inc.
- Feldman, R.S. (1990). *The Social Psychology. Current Research and Theory*. USA; Library of Congress.
- Feldman, M.J. (1993). Factors Associated with One-Year Retention in a Community College. *Research in Higher Education*, 34(4), 503-12.
- Merten, R. (1997). *Social Theory and Social Structure*. Glencoe, IL: Free press.
- Ministry of Education (1994). *Ethiopian Education and Training Policy*. Addis Ababa, Ethiopia.
- Nelson, R. (1993). *The Effect of SLS 1122 and Faculty Mentors on Student Performance*. Orlando, FL: Valencia Community College. (ED 371 778)
- Prince, L.A. (1993). *Characteristics of Early Student Dropouts at Allegany Community College and Recommendations for Early Intervention*. Cumberland, MD: Allegany Community College. (ED 361 051)
- Willingham, W.W. & Cole, N.S. (1997). *Gender and Fair Assessment*, Mahwah: NJ: Erlbaum. (ED 416 293)