

ORIGINAL ARTICLE

**Variables Correlate to English Speaking Frequency Inside and Outside Classroom:
The Case of Undergraduate Health Students of Selected Ethiopian Universities****Temesgen Mereba¹ and Tesfaye Gebeyehu²**

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Abstract

Ethiopian University students' English speaking fluency is below the standard. Health students'³ English speaking frequency in and outside class room is very limited. The study primarily aimed at examining variables that correlate to undergraduate health students' English speaking frequency. The study used piloted questionnaire to collect empirical data from 820 respondents who were selected randomly. A Mann-Whitney U Test, A Kruskal-Wallis H Test, and A Spearman rho correlation were used to analyze the survey data. The finding shows that students significantly differed on their English speaking frequency *inside* and *outside* class room because of differences in mothers' educational level and frequency of using medical English speaking resources. The study also uncovered that students differed on their English speaking frequency *outside* classroom because of differences in fathers' educational level. Further, it revealed that students differed on their intention to speak English fluently in a medical context because of their mothers' level of education. Furthermore, the finding showed statistically significant and positive relationship between English speaking frequency inside and outside classroom and communication confidence. Frequency of speaking English outside classroom correlated to communication norm and pocket money. Finally, the study recommended developing medical English speaking instructional material taking into account these variables, equipping libraries with such materials, enhancing students' communication confidence and intent to speak English fluently in a medical context as well as carrying out further research.

Key terms: /Correlates/Ethiopia/ Frequency of speaking in English/ Medical context/
/undergraduate/ University/

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³ In the present study health students refers to Nursing, Midwifery, Pharmacy, and Laboratory- Technology students.

1. Introduction

1.1 Background to the Study

English is used as an instrument of communication and medium of instruction in many countries. In Ethiopia, the home of the AU, ECA, and IGAD, various local languages are spoken and English is used in different domains. “English has a negligible number of native speakers in Ethiopia. It has a crucial position in education, commerce, government, and international communication, and from this point of view it can be regarded as a major Ethiopian language” (Bender et al., 1976 as cited in Pal, 2015, p.3).

In the domain of education, English is used as a medium of instruction and taught as a foreign language in schools, colleges and universities. It is also used as means of communication among health staffs: health instructors, physicians, and health students. Especially health students are required to communicate effectively in English when reporting orally the assignments they are given by native and non-native instructors (see Tesfaye & Temesgen, 2016). However, their English speaking proficiency is not adequate to meet the demands of their classroom. “The status of English is low in Ethiopian schools at all levels” (MOE, 2002 as cited in Amanuel, 2015, p.3).

For the failure of English speaking proficiency in the country, basically, the education system is blamed. Though the present government of Ethiopia has fiercely expanded schools, universities, and health centers, so far its educational policy could not produce well qualified English teachers that could prepare students with English fluency for high schools and higher education (Taye & Animaw, 2012). The teachers at government high school are criticized for inappropriate method of teaching English like inappropriate speaking techniques (Anegagreg, 2007; Taye & Firehun, 2015; Amanuel, 2015). In their abstract, Taye and Firehun (2015) read: “The consequences of inappropriate speaking practices used at government schools has resulted in the weak performance of the students in speaking when compared with the private”.

The education system is also blamed for failure to develop relevant and useful syllabus/programs for meaningful medical English language proficiency improvement. For example, though almost all health students admitted into universities in Ethiopia take Communicative English course, the contents of the course are grossly inappropriate for health students to communicate effectively in medical or clinical situations.

Although medical English ...can be relevant in performing various tasks in medical field, only General English courses (...Communicative English skills) are being offered in medical schools of Ethiopian higher education institutions... no any needs-based English language course is designed for students in medical field, so BSc nursing students , ...had not [been] provided any medical English courses (Shibeshi, 2016, p.4).

Lack of access to teaching aids also has contributed to students’ limited English speaking proficiency (LESP). The students are also blamed for lack of confidence, lack of practice in speaking skill in a class, lack of participation in a class, use of mother tongue, inadequate vocabulary, and poor speaking background (Amanuel, 2015).

The students' LESP could have impacts on their academic performance (Robinson, 2013). The researchers of this study, from their long years teaching experience, have witnessed that Nursing, Midwifery, Laboratory-Technology, and Pharmacy students have weak performance on oral presentations as compared to medicine students.

Limited English speaking proficiency (LESP) or speaking English less than very well also can be a barrier to give adequate health care. A study conducted in Australia (Miguel *et al.*, n.d.) identified that nursing students, from non-English speaking backgrounds, experienced difficulties with patients and staff who speak English during clinical practice; they experienced problems such as understanding patients' requests and comments and giving instructions and explanations" (p.5). Sursattayawong (2006) reads: "Nurses who have limited English speaking cannot provide the service for the foreign patients. Foreign patients are also less satisfied with the care received and may risk experiencing medical errors" (p. 3). That is to say, LESP can lead to misunderstandings, subsequent medical errors, lack of confidence in the medical system, and patient dissatisfaction (Fikadu, Chanyalew, & Mirkuzie, 2016).

The students' LESP could also have impacts on their future career both in the country and abroad. Many health graduates, including non-medicine students, because of various reasons, go abroad to find job, but with less chance of getting career. Evidences show that high unemployment rate among graduates is related to poor English proficiency (Sarudin *et al.*, 2013 in Kamal, 2016). Thus, if health graduates who have deficiency in spoken English go abroad, due to their LESP, they get difficulty to get career and even if they get they cannot give clinical services for foreigner patients.

Improving English speaking fluency entails continuous or frequent practice inside and outside classes. According to Harmer (2001), students will never learn a language unless they aim to learn during class time and outside. "Learning to speak a foreign language requires more than knowing its grammar and vocabulary. Learners should acquire the skill through interaction with each other... it is difficult for EFL learners to speak appropriate English in the classroom because of the limited language use in their real lives (Pal, 2015, p. 2). Hence, it is important to examine how frequent health students speak in English and to identify factors that influence their English speaking fluency in a medical context.

In our previous publication (Tesfaye & Temesgen, 2016), we identified affective factors that promote students' intention to speak English fluently in a medical context. This paper, which is an extension of the former one, identifies primarily socio-demographic factors and other variables that correlate to health students' English speaking frequency or continuous practice in a medical context focusing on three public universities—Jimma University, Addis Ababa University, and Wollo University.

1.2 Statement of the Problem

In many countries where English is spoken as a foreign language, most undergraduates have limited proficiency in English and demonstrate a lack of interest in using the language (Sarwar, *et al.*, 2014). This is not a surprise as majority of these students come from high schools where English language is not taught well. "There has been a steady decline in the command of English among school leavers" (Thang, Ting &

Jaafar, 2011 as cited in Kamal et al., 2016, p.112). Even the top students who get high scores in written examination are unable to express themselves orally in English language (Sarwar, et al., 2014). Students that have inability to communicate often prefer to use mother tongue during conversation rather than English language (*Ibid*).

As many studies (e.g. Abdisa, 2011; Anegagreg, 2012) have shown, students in Ethiopia have a very low proficiency in spoken English and they join university with poor English speaking proficiency (LESP) (Taye & Firehun, 2015). The majority of undergraduate learners including health students in Ethiopia lack communicative and linguistic competence and thus cannot sustain conversation in English language without occasionally code switching to their mother tongue (Tefaye & Temesgen, 2016). Health students' LESP could have impacts on their academic performance, health care access, and career (Flores *et al.*, 1998, 2002; Robinson, 2013; Sarudin et al., 2013 as cited in Kamal et al., 2016).

Previous studies investigated variables that affect students' English speaking skills. They found positive and significant relationship between Malaysia university students' self-confidence and frequency of speaking English (Kamal et al., 2016), and participants' general self-confidence and oral test scores (Mohammed, 2012). Our previous study found positive and significant association between a dependent variable, intention to speak English fluently in a medical context and predictor variables of the theory of Planned Behavior (TPB): English communication confidence, communication attitude, communication norm as well as external variables to TPB i.e. communication strategy and medical English speaking resources (Tefaye & Temesgen, 2016).

Further, studies indicate socio- demographic characteristics influence speaking English fluency. The study of Tefaye and Temesgen (2016) found positive and significant relationship between students' pocket money and intention to speak English fluently in a medical context. Furthermore, students from private schools were found to speak English more fluently than their counterpart students from governmental schools (Taye & Firehun, 2015). According to Schwalberg (2006), compared to children from non-English-speaking households, children from English-speaking households were more likely to contact in spoken English medical doctors.

However, neither of these nor other local studies has investigated the relationship between speaking English frequency in a medical context and (1) socio-demographic characteristics (e.g. parents' educational level), (2) TPB variables (communication confidence, communication norm, communication attitude), (3) medical English speaking resources (e.g. Hospital English speaking books, videos, audios), and (4) the relationship between intention to speak English fluently in a medical context and students' demographic characteristics. Hence, this study has been initiated to identify correlates of speaking English frequency in a medical context. The study answers the following research questions.

1.3 Specific Research Questions

- a) Do students significantly differ on their English speaking frequency in a medical context because of differences in their socio-demographic characteristics?
- b) Do students significantly differ on English speaking frequency (in class, outside class) due to differences in using medical English speaking resources?
- c) Do students differ on their intention to speak English fluently in a medical context because of differences in their socio-demographic characteristics?
- d) Is there a statistically significant and positive relationship between the variables of TPB (confidence, attitude, social norm, and intention), students' pocket money, and students' English speaking frequency (in class, outside classroom)?

1.4 Scope of the Study

This research is delimited to examining the relationship speaking English in a medical context has with health students' socio-demographic characteristics, medical English speaking resources (e.g. Hospital English speaking books, videos, audios) and TPB variables; the study does not examine cause-effect relationship. It is limited only to second and third year of Nursing, Mid-wifery, Laboratory Technology, and Pharmacy students in the year 2014 and 2015.

1.5 Significance of the Study

The finding can enable policy makers, instructors, universities, Ministry of Education (MOE), students, parents, and researchers. The finding uncovered that using medical English speaking resources influences frequency of speaking in English in and outside classrooms. Hence, educational policy makers may use this finding to revise the policy related to designing English teaching materials for health students. Closely related to this, the finding recommends MOE to prepare or design medical English (ESP) textbooks which are suitable for the students' level of proficiency. Further, the finding advises English instructors who teach health students to (a) prepare and use medical English teaching aids during teaching spoken English, (b) teach in English without switching to local languages, (c) encourage students to speak in English most frequently in and outside class, and (d) introduce English Speaking Day. The finding also suggests Ethiopian universities to equip libraries with medical English resources like audio and video. Furthermore, the study recommends health students to browse and use medical English speaking resources from internet and follow up medical English speaking programs. Parents also can benefit from the study which suggests them to buy or rent medical English speaking resources for their children as well as to speak with their children or to encourage them frequently to speak in English. Finally, as research on the topic is very limited, interested investigators can use the study as a stepping board either to replicate or to extend it.

2. Review of Related Literature

There are many factors that promote speaking English: Language learning resources, socio-demographics of students, and affective factors such as speaking attitude, confidence, and social norm.

2.1 Language Learning Resources

This entails many things and in this study it refers to learning resources like English speaking audio, visual, and digital technologies. These resources have a direct and indirect influence on students' learning, including their engagement in what is being taught, their motivation to learn, and their sense of well-being, belongingness, and safety (Pal, 2015). According to the finding of Tesfaye and Temesgen (2016), health students who believed that using medical speaking videos and audios displayed strong intention of improving English speaking skill in a medical context. And this study attempts to measure whether significant relationship exists between English speaking frequency inside and outside classrooms and using medical English speaking resources.

Hypothesis

- 1) *There is statistically significant relationship between students' English speaking frequency **inside** classroom and using medical English speaking resources.*
- 2) *There is statistically significant relationship between students' English speaking frequency **outside** classroom and using medical English speaking resources.*

2.2 Socio-demographic Characteristics

As to Gyles (1990), home environment exerts considerable impacts on children's learning achievement. Particularly students' parents' level of education is an important socio-demographic variable which bears relationships with academic achievements. Specific to language skill, the study of Helen and Matthew (2014) concluded that socio-demographic factors can influence students' reading habits and reading comprehension abilities. The study of Tesfaye *et al.* (2017) found positive relationship between reading comprehension achievement and Jimma University undergraduate students' demographic characteristics such as ethnicity, region, religion, and their parents' educational level.

However, with regards to speaking English, we do not speculate that students' ethnicity, region, and religion influence their English speaking frequency as English is almost not spoken frequently in most regions and religious organizations in Ethiopia. Nevertheless, we anticipate that parents' educational level and students' year of study affect students' English speaking frequency. According to Schwalberg (2006), compared to children from non-English-speaking households, children from English-speaking households were more likely to contact medical doctors. Thus, this study anticipates statistically significant relationship between *students' English speaking frequency inside and outside classrooms* and their parents' educational level.

Hypothesis

- 1) *There is statistically significant relationship between students' English speaking frequency **inside** classroom and their **mothers'** educational level.*
- 2) *There is statistically significant relationship between students' English speaking frequency **outside** classroom and their **mothers'** educational level.*
- 3) *There is statistically significant relationship between students' English speaking frequency **inside** classroom and their **fathers'** educational level.*
- 4) *There is statistically significant relationship between students' English speaking frequency **outside** classroom and their **fathers'** educational level.*

We also anticipate that students' year of study affect students' English speaking frequency.

- 5) *There is statistically significant relationship between students' English speaking frequency **inside** classroom and their years of study.*
- 6) *There is statistically significant relationship between students' English speaking frequency **outside** classroom and their years of study.*

Many studies conducted at different times indicate that socio economic status influences academic achievement. As compared to students coming from parents with low economic status, students who are from the well- to- do families perform better academically (Bloom, 1986; Schneider & Coleman, 1993). This study anticipates statistically significant relationship between students' monthly pocket money and frequency of speaking English inside and outside classrooms.

Hypothesis:

- 7) *There is statistically significant and positive relationship between students' English speaking frequency **inside** classroom and their pocket money.*
- 8) *There is statistically significant relationship between students' English speaking frequency **outside** classroom and their pocket money.*

2.3 The Theory of Planned Behavior (TPB) Variables : Intention, attitude, confidence, and social norm

Intention: TPB maintains that behavior is directly predicted by both behavioral intention and Perceived Behavioral Control (see Figure 1, below). "As a general rule", says Ajzen (1991), "the stronger the intention to engage in a behavior, the more likely should be its performance" (P.181). The theory contends that people act on behaviors they intend to do and if they have no intention of acting on a behavior, they do nothing (Brann & Sutton, 2009). Accordingly, in the domain of speaking proficient English, the degree to which people speak English fluently is a function of their intentions or willingness to improve their speaking proficiency. If intention influences actual behavior, it implies that there is statistically significant or unique relationship between the two variables. But the theory does not maintain that actual behavior influences intention. The current study examines whether there is a statistically significant relationship between actual frequency of speaking English and intention to speak English fluently in a medical context.

Hypothesis

- 1) *There is statistically significant and positive relationship between frequency of speaking in English **inside** classroom and intention to improve English speaking fluency in a medical context.*
- 2) *There is statistically significant and positive relationship between frequency of speaking in English **outside** classroom and intention to improve English speaking fluency in a medical context.*

Attitude: Attitude towards the behavior, according to Ajzen (1991), refers to the degree to which an individual has a favorable or unfavorable assessment or appraisal of the behavior in question [e.g. personal evaluation that speaking in English is desirable]. In the context of communication, an individual's attitude towards communicating about a certain behavior influences his or her behavior. According to Jang and Yoo (2009), individuals may have favorable attitude towards communicating about a topic if they perceive that the benefits of discussing the topic outweigh the costs. Brann and Sutton (2009) state: "It may be reasonably concluded that if a person feels good about a certain type of communication behavior, she or he is more willing to engage in it" (p.7). That is to say, if people have favorable attitudes toward improving speaking proficiency, it may be more likely for them to attempt to speak fluently.

Conversely, people may have unfavorable attitude towards communicating about a topic if talking would produce more negative consequences (Jang and Yoo, 2009). Accordingly, if people have unfavorable attitudes towards improving English speaking proficiency, it may be less likely for them to practice speaking English in class and outside class. A study conducted on Asian students revealed that because of poor motivation Asian students tend to be reluctant to speaking English in class as well as after class (Chamot, 1993 in Pal, 2015). The author suggested teachers to encourage and motivate them to speak English, especially in class. Though TPB maintains that attitude influences behavior through intention, it does not maintain whether practice or behavior influences attitude. This study examines the relationship between frequency of speaking English (practice) and students' attitude towards speaking English in a medical context.

Hypothesis

- 3) *There is statistically significant relationship between frequencies of speaking in English **inside** class room and students' attitude towards speaking English in a medical context.*
- 4) *There is statistically significant relationship between frequency of speaking in English **outside** class room and students' attitude towards speaking English in a medical context.*

Confidence: According to TPB (e.g. Ajzen, 2002; Albarraci'net al., 2006), people's performance can be affected by the level of their confidence or perceived behavioral control (PBC). In the context of communication, self-communication efficacy or confidence (PBC) is an "individuals' perception that they [s/he] possess [es] the skills to complete successfully the communication tasks involved in the information

management process" (Afifi & Weiner, 2004, p. 178). In other words, when people believe that they have the ability to successfully carry on a conversation about a particular topic, they are more likely to engage in the behavior (Jang & Yoo, 2009).

On the other hand, when people believe that they are incapable to perform a behavior, they are less likely to engage in that behavior. A study conducted in Russia indicates that students who lack ability to speak English confidently have limited English speaking fluency (Trent, 2009 in Pal, 2015). While the study of Kama *et al.* (2016) indicated positive and statistically significant relationship between speaking confidence and English performance, the study of Tesfaye and Temesgen (2016) found statistically significant and positive relationship between speaking confidence and intention to speak English in a medical context.

Yet, according to Cohen (2005) in Pal (2015, p.5), "the standard of oral fluency and competence in English is low, and many Ethiopian speakers have 'little confidence in the language for oral purposes'. Nevertheless, Cohen's finding has not examined the relationship between speaking confidence and frequency of speaking English in and outside of classroom. Hence, this study examines the extent to which English speaking frequency in class and outside of class relates to communication confidence. In this study, PBC refers to a person's confidence to speak English fluently in a medical context.

Hypothesis

- 5) *There is statistically significant and positive relationship between English speaking frequency **inside** classroom and communication confidence.*
- 6) *There is statistically significant and positive relationship between English speaking frequency **outside** classroom and communication confidence.*

Subjective norms (perceived communication norms): As to Elwood, Green and Carter (2003), it refers to the perceived social pressure to perform or not perform the target behavior [e.g. perceived normative support for speaking English]. According to Hale *et al.* (2002) in Elwood, Green and Carter (2003), subjective norm is an individual's perception that important/significant others (e.g. close friends, teachers, and physicians) support a specific behavior. Perceived norms are important determinants of behavior. Subjective norms has two components- injunctive and descriptive (Francis *et al.*, 2004). Specific to speaking English, the former one refers to a person's perception that influential others would approve or disapprove of his/her attempt to speak in English. And the latter refers to a persons' perception that those people (significant others) themselves would speak in English (e.g., "If everyone's doing it, then it must be a sensible thing to do" (Rivis & Sheeran, 2003, p.220).

As to Fishbeinet *al.* (1993), the more one perceives social pressure to perform a behavior, the more likely one is to actually perform that behavior. That means, in the context of speaking English, the more a student perceives that significant others (e.g. friends) want him/her to improve his/her oral English speaking proficiency, the more likely that s/he attempt to do accordingly. This study speculates that frequency of speaking English correlates to subjective norm (communication norm).

Hypothesis

- 1) *There is statistically significant relationship between frequency of speaking in English **inside** class and communication norm.*
- 2) *There is statistically significant relationship between frequency of speaking in English **outside** class and communication norm.*

The Theory of Planned Behavior (Fig 2:1) shows direct predictors of actual behavior: intention and Volitional control and direct predictor of Intention: attitude, subjective norms, and volitional control. Our previous publication (Teskaye & Temesgen, 2016) measured the relationship intention to speak English in a medical context has with attitude, subjective norms, and volitional control. However, the present study focuses on measuring the relationship actual English speaking frequency has with the predictor variables of TPB: attitude, subjective norms, volitional control, and intention as well as with students' socio-demographic characteristics like pocket money and parents' educational level.

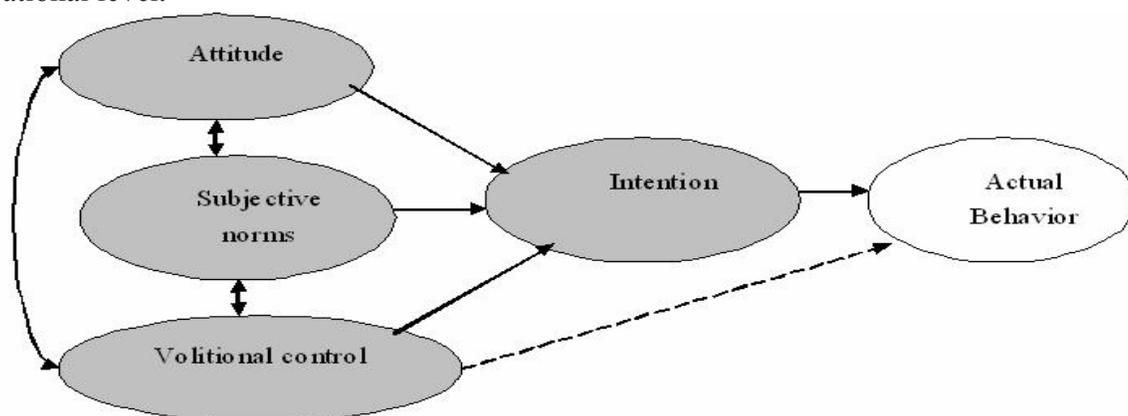


Fig.2: 1: The Theory of Planned Behavior (Aizen, 1991)

3. Method and Material

3.1 Study Time and Place

The study was conducted in Ethiopia, which is located in the horn of East Africa. Data was collected from three randomly chosen public universities: Jimma University, Addis Ababa University, and Wollo University, from April 2014 – May 30, 2015. While Addis Ababa University is found at the Capital of Ethiopia, Addis Ababa, Jimma University and Wollo universities are located at about 357kms and 254 Kms respectively far away from Addis Ababa.

3.2. The Research Design

As there are few or no earlier studies that have examined the relationship between English speaking frequency, TPB variables, medical English speaking resources, and participants' demographics characteristics exploratory design was used in this study. The design is also appropriate for this study as it tests hypothesis. The approach is only quantitative.

3.3. Participants

Undergraduate regular students of Jimma University, Addis Ababa University, and Wollo University were randomly selected. Samples of second and third year regular undergraduates, in the academic year of 2014/2015, as the study population, were selected from four departments: Nursing, Midwifery, Laboratory Technology, and Pharmacy. The sample size in this publication is the same as the sample size in the previous publication (N= 880⁴) that examined "predictors of intention to speak English fluently in a medical context" (Tesfaye & Temesgen, 2016). The reason is that both manuscripts have been prepared from the same data collected for a staff research sponsored by Jimma University. The proportion for each year and department was determined based on proportional stratified random sampling; the stratum was determined based on the number of students in each college and department.

3.4. Inclusion-exclusion Criteria

Nursing, Midwifery, Laboratory Technology, and Pharmacy students were included in the study. Students from the School of Environment, Department of Medicine, Department of Health Officer, first year and fourth year were excluded. First year students were excluded from the study because they had no exposure to medical wards and clinical oral presentation. Fourth year students were excluded as they had been assigned to an attachment when the data was being collected. Students from the departments of Medicine and Health Officer were excluded as they were tightening with academic burden. Students from the School of Environment were excluded as they had participated in the pilot study.

3.5. Instrument

Pre-tested self-administered questionnaire, which was constructed based on questionnaire constructing guide (Francis *et al.* 2004; Ajzen, 2008), was used to collect data related to TPB variables (attitude, subjective norm, PBC, and intention) and external variables to TPB i.e. participants' socio-demographic characteristics. From the 880 distributed questionnaires, 822 (582 male and 223 female) (93.41%) were filed and returned.

⁴ The sample size in the previous publication was determined using sample size table for multiple regressions population proportion formula with the assumption of confidence level of 95%, an effect size of $\rho^2.30$, 6 predictor variables (Gregory *et al.*, 2007), and 10 % allowance for non- response rate. Accordingly, for excellent prediction level, a sample size of 800 was determined. By adding 10% for non-response rate, the required total sample size for the study was 880. The current publication also used the same sample size as it is prepared from the same source (staff research).

3.6. Measures

Responses for frequency of speaking English were measured on five-point scale ranges from “Never” to “Every time”. English speaking frequency in a class and English speaking frequency outside class were measured each with one item. For TPB variables, responses were measured on a seven-point scale that ranges from “Strongly disagree” to “Strongly agree” based on the recommendation of Francis *et al.* (2004)⁵. Intention is typically measured by asking items [e.g., ‘If I intend to improve my English speaking proficiency, I will speak English fluently in the coming twelve months].

General self-confidence to speak English in a medical context was measured by asking items such as: “I am confident that I could speak English fluently in a medical context in the coming twelve months” and “the decision to speak English...is beyond my control”.

Subjective norm is measured by asking respondents about their perception of significant others approval to perform a Behaviour [e.g. I think my friends want me to talk in English with them; ‘I think my health instructors expect me to talk English fluently]. Speaking strategies is measured with two items. One item reads: “When speaking in English in a medical context... I will try to use various clarification strategies on a regular basis in the coming twelve months”.

Volitional control is measured in terms of Medical English speaking resources and monthly pocket money students receive. English speaking resource is measured by two items. One item reads: “I try to use medical English speaking resources (e.g. tapes, videos like ‘The Doctors’ program) to speak in English on regular basis for the next 12 months”. Pocket money is measured using one item: “How much pocket money (in Birr) on average you received on a monthly base from your parents?”

3.7. Validity and Reliability

Internal reliability of items for TPB (attitude, subjective norm, and perceived Behavioural control, intention to speak English fluently in medical context), external variables to TPB (speaking strategies, medical English speaking resource) was determined for the scale, and construct validity was established as well using Varimax rotation.

Table 3.1: Internal Reliability and Construct Validity of a Questionnaire

Description	N of Items	Cronbach’s Alpha	Factor load
Intention to speak English in medical context	3	.70	.70
Attitude towards speaking English	6	.80	.67
Subjective norms	5	.64	.60
Perceived Behavioural control	3	.76	.76
Speaking strategies	2	.68	.86
Resource materials	2	.60	.84

Source: Temesgen and Tesfaye (2016).

⁵ For regression analysis 7 point scale is suggested and the previous publication or the staff research involved regression analysis.

3.8. Data Analysis

Spearman's rho Correlation was used to measure the relationship between ordinal variables. A Mann Whitney Test was used to measure the relationship between categorical and ordinal variables (at $P < 0.05$). Using Spearman's rho, A Mann Whitney U Test and A Kruskal-Wallis H test in this study is appropriate because the study does not fulfill the assumption of T-Test like normality and homogeneity of variance (equality of sample size). Percentage and frequency were used for describing demographic characteristics.

3.9. Data Quality Assurance and Ethical Clearance

The English version of the questionnaire was prepared in simple English. A pilot study was done on 98 students of the School of Environment. Comments and corrections given to the pilot questionnaire were accommodated. During the main study, the investigators discussed the content of the study instrument, the general objective of the study, how to keep confidentiality and privacy, and how to distribute and collect questionnaires. After the survey participants were told the purpose of the study, they were asked to put a checkmark in the box in front of any item that would apply to them. Data was coded, entered and edited into a computer using Statistical Package for Social Sciences (SPSS) version 20. Ethical clearance for the study was obtained from the Ethical Review Board of College of Social Sciences and Law⁶, Jimma University.

4. Results

This part presents the outcomes from the statistical analysis. First, it describes the demographic characteristics of the study participants. Next, it measures the relationship between English speaking frequency and demographic characteristics, TPB variables, medical English speaking resources, and English speaking strategies. It also presents the relationship between demographic characteristics and intention to speak English fluently in a medical context.

⁶ This study was sponsored by the then College of Social Sciences and Law; now it has been split into College of Social Sciences and Humanities and College of Law and Governance.

4.1 Description of Participants' Background Characteristics⁷

Table 4.1.1 Demographic Characteristics of the Study Participants

Variable		N	%
Gender	Female	223	27.1
	Male	582	70.8
	Missing	17	2.1
	N	822	100
Study Year	Second	413	50.2
	Third	393	47.8
	Missing	16	2%
	N	822	100
Ethnicity	Oromo	213	25.9
	Amhara	361	43.9
	Tigre	91	11.1
	Others	133	16.2
	Missing	24	2.9
	N	822	100
Region	Oromia	231	28.1
	Amhara	290	35.3
	Tigray	65	7.9
	Addis Ababa	121	14.7
	SNNP ⁸	91	11.1
	Other	11	1.3
	Missing	13	1.6
	N	822	100
Religion	Islam	140	17
	Orthodox Christianity	522	63.5
	Protestant Christianity	121	14.7
	Other	23	2.8
	Missing	16	2.0
	N	822	100
Residence	Urban	363	44.2
	Rural	440	53.5
	Missing	19	2.3
	N	822	100
Living place	In university (dorm)	712	86.6
	Out of dorm	92	11.2
	Missing	18	2.2
	N	822	100

⁷ Participants' average age and monthly pocket money were 21.39 years and 409.29 Birr respectively

⁸South Nations & Nationalities people

Table 4.1.1 depicts the research participants' demographic characteristics. Accordingly, while the number of males is more than two times of the females ($n=582$, 70.8%, $n= 223$, 27.1%), the number of participants who come from Second and Third Year is almost equal (50.2% and 47.8%) respectively. Majority of students come from Amhara ($n, 361$, 43.9%) and Oromo ($n=213$, $n= 25.9\%$) ethnicity and Amhara ($n= 290$, 35.3%) and Oromia ($n=231$, 28.1%) regions. As far as religion is concerned, the majority of participants are followers of Orthodox Christianity ($n=522$, 63.5) and Islam ($n=140$, 17%). With regards to the place they come from and their residency, slightly more than 50% come from Rural ($n= 440$, 53.5%) and majorities live in dormitory ($n=712$, 86.6%). The participants' average age and pocket money were 21.39 years and 409.29 Birr respectively (see the footnote on the preceding page).

In addition to describing the demographic characteristics of these participants, the relationship between these demographic characteristics and English speaking frequency as well as intention to improve speaking fluency in a medical context has been measured statistically. As the result shows, most of these demographic characteristics lack statistically significant relationship with the dependent variables (see Appendix 1, Appendix 2, and Appendix 3). What below presented is only variables that significantly related with the dependent variables.

Table 4.2: The Relation English Speaking Frequency (in and outside of class) has with Students Parents' Educational Level, Medical English Speaking Resources, and Students' Pocket Money

Table 4.2.1: The relationship between intention to speak English fluently in a medical context and Mothers' Educational Level						
Variables	N	%	Mean Rank (<i>Med</i>)	χ^2	df	p
Mother's educational level						
No formal education	388	49.81	409.28	8.5	3	.037
Some primary education (Grades 1-8)	204	26.18	353.69			
Secondary Education(Grades 9-12)	79	10.14	398.29			
Post Secondary Education	108	13.87	383.25			
Total	779	100				

A Kruskal-Wallis H test was conducted to examine if students' intention to speak English fluently in a medical context differ because of their socio-demographic characteristics. The taste revealed that only mother's educational status differences influenced respondents' English speaking intention in a medical context : No Formal Education ($n = 388$, $Med = 409.28$), Some Primary Education ($n= 204$, $Med = 353.69$), Secondary Education ($n=79$, $MR=398.29$), and Post Secondary Education ($n= 108$, $MR= 383.25$), ($\chi^2 (3) = 8.5$, $p = 0.037$). To see between which group significant differences

occurs, a Man-Whitny U Test was also carried out. The test revealed that students from mothers with No formal education significantly differ on their median rank as compared to their counterparts who are from mothers with Some primary education (Grades 1-8) ($U= 33848.000$, $Z=-2.919$, $p.004$). From the finding one can see that being from uneducated mothers influenced students' intention to speak English fluently in a medical context.

Table 4.2.2: The Relationship between Mother's Educational Level and Frequency of Speaking in English Health Related Matters in Academic class						
Variables	n	%	Mean Rank (Med)	χ^2	df	p
Mother's educational level						
No formal education	397	49.63	383.57	10.461	3	.015
Some primary education (Grades 1-8)	211	26.38	417.74			
Secondary Education(Grades 9-12)	83	10.37	374.64			
Post Secondary Education	109	13.62	448.49			
Total	800	100				

A Kruskal-Wallis H test was conducted to examine if students' frequency of speaking health related matters in English *inside* classroom during the last 12 months (before collection of data) differ because of their socio-demographic factors. The test revealed that only mother's educational status differences (but not father's) influenced respondents' English speaking frequency in a medical context : No Formal Education ($n = 397$, $Med = 383.57$), Some Primary Education ($n= 211$, $Med = 417.74$), Secondary Education ($n=83$, $Med = 374.64$), and Post Secondary Education ($n= 109$, $Med = 448.49$, ($\chi^2 (3) = 10.461$, $p = 0.015$). From the finding one can see that being from mothers with Post Secondary Education influenced students' frequency of speaking in English health related matters in academic class.

Table 4.2. 3: The Relationship between Mother's Educational Level and Frequency of Speaking in English Health Related Matters outside an Academic Class

Variables	n	%	Mean Rank (Med)	χ^2	df	p
Mother's educational level						
No formal education	395	49.87	362.36	23.52	3	.000
Some primary education (Grades 1-8)	209	26.40	435.68			
Secondary Education(Grades 9-12)	82	10.35	395.93			
Post Secondary Education	106	13.38	446.90			
Total	792	100				

To examine if students' frequency of speaking health related matters in English *outside* class room during the last 12 months (before data collection) differ because of their socio-demographic factors, AKruskal-Wallis H test was conducted. The taste revealed that mothers' educational status influenced respondents' frequency of speaking health related matters in English outside class room during the last 12 months ($\chi^2 (3) = 23.524, p = 0.000$). From the finding one can see that being from mothers with Post Secondary Education influenced students' frequency of speaking in English health related matters outside classroom.

Therefore, the hypothesis "*There is statistically significant and positive relationship between students' English speaking frequency and their mothers' educational level*" in classroom and outside of classroom is accepted for mothers.

Table 4.2.4: The Relationship between Frequency of Speaking Health Related Matters in English outside a Class during the Last 12 months and Fathers' Educational Levels						
Variables	N	%	Mean Rank (<i>Med</i>)	χ^2	df	p
Father's educational level						
No formal education	291	36.69	367.08	13.70	3	.003
Some primary education (Grades 1-8)	233	29.38	417.14			
Secondary Education(Grades 9-12)	78	9.83	369.40			
Post Secondary Education	191	24.10	429.28			
Total	793	100				

To examine if students' frequency of speaking health related matters in English outside classroom differed because of differences in father's educational background, a Kruskal-Wallis H test was conducted. The test unmasked that fathers' educational status influenced respondents' frequency of speaking health related matters in English outside of class room ($\chi^2(3) = 13.704, p = 0.003$). From the data, overall, it appears that, students' mean rank on frequency of speaking health related matters in English *outside* of class room is influenced by their father's educational level.

Thus, the hypothesis "*There is statistically significant and positive relationship between students' English speaking frequency [outside of classroom, but not in classroom] and their parents' educational level*" is accepted for fathers.

Variables	Frequency of Using English Medical speaking Resources during the last 12 Months	n	%	Mean Rank (Med)	χ^2	df	p
Frequency of Talking Health Related Matters outside college class	Occasionally	342	43.9	334.02	61.70	4	.000
	Sometimes	310	39.7	411.63			
	Most of the days	76	9.7	460.34			
	Almost Everyday	27	3.5	532.02			
	Everyday	25	3.2	536.03			
Total		780	100				

To examine if students' frequency of talking health related matters *outside* class room varied because of frequency of using English medical speaking resources, A Kruskal-Wallis H test was conducted. Accordingly, the test uncovered that students' speaking frequency of health matters in English differed because of frequency of using medical speaking resources ($\chi^2(4) = 61.701, p = 0.000$). Hence, one can conclude that the more frequent students used English medical speaking resources, the higher was their speaking frequency *outside* class room during the last 12 months.

Table 4.2.6: The Relationship between Frequency of Talking Health Related Matters inside College Class and Frequency of Using English Medical Speaking Resources during the last 12 Months							
Variables	Frequency of Using English Medical speaking Resources during the last 12 Months	n	%	Mean Rank (Med)	χ^2	df	p
Frequency of Talking Health Related Matters inside college class	Occasionally	344	43.71	365.3	20.54	4	.000
	Sometimes	311	39.52	399.4			
	Most of the days	79	10.04	431.4			
	Almost Everyday	27	3.43	497.7			
	Everyday	26	3.30	486.9			
	Total	787					

A Kruskal-Wallis H test was conducted to examine if students' frequency of talking health related matters *inside* college classroom differed because of frequency of using English medical speaking resources during the last 12 Months (before collection of data). The taste revealed that students' speaking frequency of health matters in English in classrooms differed because of frequency of using medical speaking resources (χ^2 (4) 20.541, $p = 0.000$). Hence, overall, one can conclude that the more frequent students used English medical speaking resources, the higher was their speaking frequency inside class room during the last 12 months.

Therefore, the hypothesis "There is statistically significant relationship between students' English speaking frequency and using medical English speaking resources" is acceptable.

Spearman's rho correlation coefficient was computed to assess the relationship between students' monthly pocket money and English speaking frequency inside and outside classrooms. While monthly pocket money was positively and significantly correlated to English speaking frequency outside classrooms ($r = .138$, $n = 689$, $p = 0.000$), it was not correlated to English speaking frequency inside classrooms ($r = .048$, $n = 696$, $p = .209$). Overall, there was a positive, statistically significant but weak correlation between monthly pocket money and English speaking frequency outside classrooms.

4.3 The Relationship between TPB Variables, Pocket Money and English Speaking Frequency in and outside Class

A Spearman rho correlation coefficient was conducted to examine if students' frequency of talking health related matters inside and outside of classroom correlate to their communication confidence. The taste showed that students' communication confidence correlated to speaking frequency of health matters in English inside class room ($r = .106$, $n = 769$, $p = .003$) and outside classroom ($r = .114$, $n = 761$, $p = .002$). Overall, increases in the frequency of talking in English health related matters inside and outside classrooms was correlated with increases in communication confidence. Therefore, the hypotheses: *“There is statistically significant and positive correlation between English speaking frequency inside and outside of classroom and communication confidence’ are accepted.*

To examine whether communication norm correlates to students' frequency of talking health related matters inside and outside of classroom, a Spearman rho correlation coefficient was computed. There was a positive and statistically significant correlation between communication norm and frequency of speaking in English health related matters outside classroom ($r = .074$, $n = 761$, $p = .042$), but communication norm insignificantly correlated to frequency of speaking in English health related matters inside classroom ($r = .033$, $n = 767$, $p = .356$). Hence, while increases in frequency of speaking in English health related matters *outside* classroom correlated with increases in perceived communication norm, increases in frequency of speaking in English health related matters *inside* classroom did not significantly correlate to increases in perceived communication norm. Hence, while the hypothesis *“There is statistically significant and positive relationship between English speaking frequency outside of classroom and communication norm”* is accepted, *the hypothesis “There is statistically significant and positive relationship between English speaking frequency inside classroom and communication norm”* is rejected.

Spearman's rho correlation coefficient was conducted to examine the relationship between communication attitude and frequency of talking health related matters inside and outside of classroom respectively. There was no correlation between the variables ($r = .004$, $n = 756$, $p = .913$; $r = -.002$, $n = 749$, $p = .950$). Overall, there was no correlation between communication attitude and frequency of talking health related matters inside and outside of classroom. Therefore, the hypothesis *“There is [are] statistically significant and positive correlation between English speaking frequency inside and outside classroom and communication attitude are rejected.*

A Spearman rho correlation coefficient was computed to examine if students' frequency of talking health related matters inside and outside of classroom correlate to their intention to speak English fluently in a medical context. The taste indicated that students' communication intention correlated to speaking frequency of health matters in English inside class room ($r = .096$, $n = 785$, $p = .007$) but not to speaking frequency of health matters in English outside class room ($r = .051$, $n = 776$, $p = .154$). Overall, when the frequency of talking in English health related matters inside classrooms rises, but not outside classroom, so does students' intention to speak English fluently in a medical context. Therefore, while the hypotheses: *“There is statistically significant and positive correlation between English speaking frequency inside classroom and intention to speak English fluently in a medical context”* is accepted, *the hypothesis “There is statistically*

significant and positive correlation between English speaking frequency outside classroom and intention to speak English fluently in a medical context” is rejected.

Table 4.2.7: The Relationship between TPB Variables, Pocket Money and English Speaking Frequency in and outside Class

		Frequency of talking health related matters in college classes during the last 12 months	Frequency of talking health related matters outside college classes during the last 12 months	Communication Confidence	Social (communication) Norm	Communication Attitude	Pocket money	Intention to speak English fluently in a medical context
Frequency of talking health related matters in college classes during the last 12 months	Correlation Coefficient	1	.381**	.106**	.033	.004	.048	.096**
	Sig. (two -tailed)		.000	.003	.356	.913	.209	.007
	N		812	769	767	756	696	785
Frequency of talking health related matters outside college classes during the last 12 months	Correlation Coefficient		1	.114**	.074*	-.002	.138**	.051
	Sig. (two -tailed)			.002	.042	.950	.000	.154
	N			761	761	749	689	776
Communication Confidence	Correlation Coefficient			1	.441**	.445**	.070	.504**
	Sig. (two -tailed)				.000	.000	.073	.000
	N				750	745	664	760
Social (Communication) norm	Correlation Coefficient				1	.535**	-.009	.499**
	Sig. (two -tailed)					.000	.820	.000
	N					742	667	756
Communication Attitude	Correlation Coefficient					1	-.022	.656**
	Sig. (two -tailed)						.570	.000
	N						654	751
Pocket money	Correlation Coefficient						1	-.054
	Sig. (two -tailed)							.158
	N							675
Intention to speak English fluently in a medical context	Correlation Coefficient							1
	Sig. (two -tailed)							
	N							

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

*Correlation is significant at the 0.05 level (Sig. (2 -tailed)

Before discussing the finding, let us summarize the accepted and rejected hypothesis.

a. Accepted hypotheses:

- 1) *There is statistically significant and positive relationship between frequency of speaking in English inside classroom and intention to improve English speaking fluency in a medical context.*
- 2) *There is statistically significant and positive relationship between frequency of speaking in English inside and outside classroom and (a) medical English speaking resources, (b) communication confidence, and (c) mother's educational background.*
- 3) *There is statistically significant and positive relationship between English speaking frequency outside of classroom and (a) father's educational level, (b) communication norm, and (c) pocket money.*

b. Rejected hypothesis:

- 4) *There is statistically significant and positive relationship between frequency of speaking in English **inside and outside of** classroom and students' perceived **attitude** towards speaking English in a medical context.*
- 5) *There is statistically significant and positive relationship between English speaking frequency **inside** classroom and perceived **communication norm**.*
- 6) *There is statistically significant relationship between students' English speaking frequency **inside and outside of** classroom and their **year of study**.*
- 7) *There is statistically significant relationship between students' English speaking frequency **inside** classroom and their **pocket money**.*

Based on the accepted hypotheses, the following conceptual model has been constructed (Fig. 2.2). From the model we can see that English speaking frequency outside and inside classroom significantly and positively relate to (1) Medical English speaking resources, (2) Confidence to speak in English, and (3) Mothers' educational level. Whereas, while English speaking frequency **outside** classroom relates to (i) Communication norm, (ii) Fathers' educational level, and (iii) students' pocket money, English speaking frequency **inside** classroom relates to only to intention to speak English fluently in a medical context.

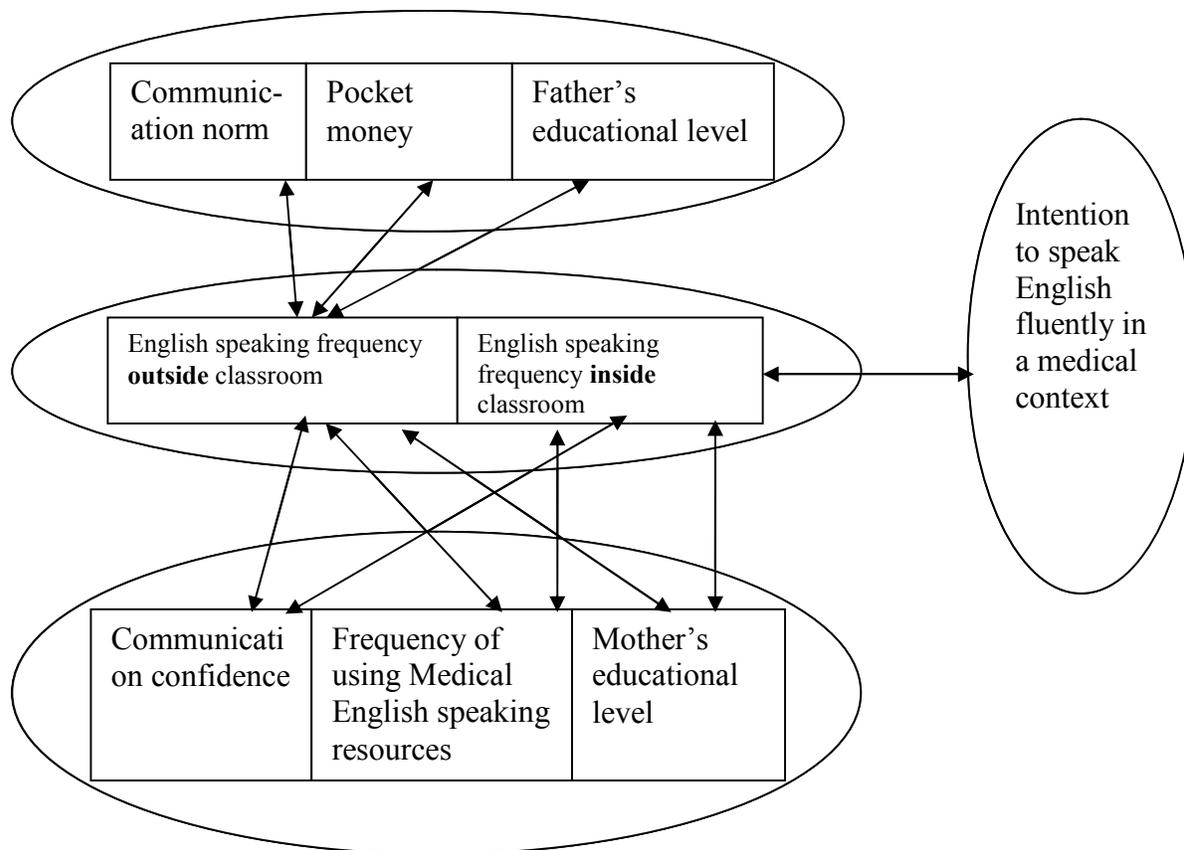


Fig 4.1: Correlates of English Speaking Frequency

5. Discussion

5.1 Background characteristics and Speaking English (Intention and Past)

The study attempted to examine variables that correlate to English speaking frequency in a medical context. Among several background characteristics of the study participants, some are found to correlate to English speaking frequency inside and outside classroom.

Intention: The finding shows that students from mothers with “No formal education” displayed stronger intention to speak English fluently in a medical context than their counterpart students from mothers with elementary, high school and post secondary education. This is not surprising for people intend or plan to get something that they have not possessed. Obviously people attempt to reach out to get what they do not have. Put it the other way, mothers with “No educational background” may encourage their children to intend to speak English fluently in the future. Of course, further study is important for better and logical explanation.

Parents’ educational level: The finding also revealed that students from mothers with Post Secondary education spoke English more frequently in and outside of classroom as compared to their counterpart students from parents with No formal

education. However, students from fathers with Post Secondary education spoke English more frequently outside of classroom as compared to their counterpart students from parents with No formal education. One of the explanations of the finding could be that the students' parents themselves speak with their children in English in different contexts. The other explanation could be these parents encourage their children to speak in English indifferent context. An additional explanation would be that these educated parents create conducive environment that encourages their children to speak in English such as equipping them with English speaking resources and reading materials which enrich students' vocabulary and enhance English speaking skills. The explanation agrees to some extent with that of Helen and Matthew (2014) who concluded that socio-demographic factors like parents' educational background can influence students' reading habits and reading comprehension abilities. Another support for this explanation comes from Gyles (1990) who argue that home environment exerts considerable impacts on children's learning achievement. Further, the finding of Yu, Huang, and Schwalberg (2006) supports our finding. According to their finding, compared to children from non-English-speaking households, children from English-speaking households were more likely to contact in English medical doctors.

Medical English speaking resources: Furthermore, medical English speaking resources were found to be variables that influence students' English speaking fluency in and outside of classroom. Students who used these resources reportedly spoke in English more frequently. The explanation for this could be that the more students used these resources, the more they got inputs like additional vocabularies that improve their English speaking in a medical context. The finding has implications for instructors, policy makers, universities, MOE, students and parents.

It implies instructors who teach health students to

- a. prepare and use medical English teaching aids during teaching,
- b. teach in English without frequently switching to local languages, and
- c. encourage students to speak in English most frequently in and outside of class, and
- d. introduce English Speaking Day.

The finding also implies Educational policy makers to revise the policy related to designing medical English teaching materials for health students; Ethiopian universities to equip libraries with medical English resources like audio and video; the MOE to prepare medical English textbooks which are suitable for the students' level of proficiency; the students to browse and use medical English speaking resources from internet, and finally parents to buy or rent these resources for their children.

Pocket money: The study indicated statistically significant relationship between pocket money and frequency of speaking English outside of classroom. This could be because students who get higher pocket money could have access to buy or rent medical English speaking resources that they use outside of classroom. Support to this explanation comes from Bloom (1986) and Schneider and Coleman (1993) who concluded that students who receive more material and financial support can perform better academically.

The insignificant difference between frequencies of speaking English inside classroom could be attributed to absence or lack of chance of interaction among students; most classes seem to be lecture dominated where the teacher speaks a lot and switches to local languages. The finding supports x and y who reported that students from wealthier parents perform better than their counterpart students from poor family. This implies the importance of equipping libraries with medical English speaking resources so that students with lower pocket money can access them.

5.2 Variables of TPB and Speaking English Frequency

The survey research also tried to examine the relationship between communication confidence and frequency of speaking in English inside and outside of classrooms. The study indicated significant and positive relationship between the two variables implying that more frequent practice of speaking in English inside and outside of classrooms enhances communication confidence and vice-versa. One of the many possible reasons could be that confidence overcomes fears of criticism of significant others like classmates and other people. This implies the importance of enhancing students' confidence to speak in English in a medical context in and outside of classrooms. The finding also implies the importance of creating conducive situations like role plays, drama, debate, public speaking and discussions inside and outside of classrooms that gives students more opportunities to practice speaking English. The finding is in line with the Theory of planned behavior which stipulates positive relationship between past behavior and perceived behavioral control or communication confidence (Ajzen, 2002). The study also supports the finding of Mohammed (2012) and Kamal et al (2016) which say that perceived behavioral control [communication confidence] enhances students' English speaking and reduces their perceptions of difficulty in speaking English, and Patil (2008) who asserted that building up learner's confidence eliminates their fear of making errors during speaking.

According to Shah (1998) in Kamal et al. (2016), individuals are dependent on context; that is to say their English speaking depends on context. This study indicated insignificant correlation between communication norm and frequency of speaking in English inside a classroom. This could be because of absence of interaction among students and between students and instructors; students may not get sufficient chance to speak English inside of the class room; to cover large topics in a short time instructors may prefer lecture method of teaching instead of student-centered. Over criticism, from instructors and classmates, for using limited English speaking proficiency could also discourage students from attempting to speak in English in a classroom. This implies the environment inside of the classroom that is people that the students surround themselves with does not encourage students to speak in English. Though English is the medium of instruction, the environment inside of the class may not necessarily require English but local languages (code switching) especially Amharic and Afan Oromo, the two widely spoken languages in Ethiopia to communicate with. Instructors also may frequently switch to local languages instead of using English. The implication of the finding are three fold: (1) speaking skill is a neglected skill inside of class rooms, (2) the importance of creating strong and positive relationship among students, (3) creating English Speaking Day, (4) encouraging students to speak most of the time in English in a medical context, and (5) the importance of using student-centered class instead of lecture method.

This study showed that communication norm is correlated to frequency of speaking in English outside a classroom. This could be attributed to their confidence. In this study students' confidence to speak English outside of class room is found to be stronger than to speak in classroom. According to Mohammed (2012), self confident learners are ready to speak in public.

However, the finding is in conflict with Kamal *et al.* (2016) who found insignificant relationship between subjective norm and students' use of English outside of classroom and Bashir, Azeem, and Hussain (2011) who witnessed the speaking skill as neglected skill outside of class rooms. The reason could be differences in the type of statistical analysis applied: nonparametric correlation and parametric correlation. For example, in this study while using Spearman's rho correlation resulted in insignificant correlation between the two variables, using Pearson correlation ended in significant correlation between the these variables. However, since the environment outside of classroom does not encourage communicating in English, further study is important for better explanation.

The other construct of the theory of planned behavior is Attitude. No relationship is observed between English speaking frequency in and outside of classroom and attitude to speak English in a medical context. The finding agrees with that of Bashir, Azeem, and Husain (2011) who found students unmotivated towards speaking English in the classroom. This shows that students were not positively rewarded for their attempt to speak in English in and outside of the classroom and the finding supports Jang and Yoo (2009) who asserted that people may have unfavorable attitude towards communicating about a topic if talking would produce more negative consequences.

The finding may imply that, to enhance students' English speaking interests, instructors did not use English speaking activities such as English music, movies, medical speaking television and radio programs, dramas, roll plays or comic books, picture description, debating, storytelling, and peers interview. Besides, the topics of the lessons may not encourage speaking in English. Closely related to this, teachers may have given less time to speaking activities, undermined examining speaking, over criticized students with limited English speaking proficiency, and over used teacher-centered class, and did not design interactive activities. Support for this explanation comes from Pal (2015) who found poor speaking activities design by teachers' at Gambela Teachers' Education as a factor for Second Year English major students' poor speaking ability. On the other side of the coin, the finding implies the importance of making learners comfortable with their English speaking. Nevertheless, the finding indicates speaking in English in and outside of the classroom is not attributed to students' interest but to factors like communication confidence and medical English speaking resources.

6. Conclusion

Existing literature on health communication (e.g. Brann & Sutton 2009; Tesfaye & Hailom, 2015) and the theory of Planned Behavior (Ajzen, 1991) indicated that communication influences behavioral intention. There are many health communication studies inclined to investigating variables that influence behavioral intention related to safer sex practices, quitting smoking, and minimizing alcohol in taking. In the statement of the problem of this study it was stated that, overall, Ethiopian undergraduate health students have limited English speaking fluency and they need to improve their intention

of English speaking fluency in a medical context. To the knowledge of the researchers no study has investigated the relationship between students' background characteristics, TPB variables, and their English speaking frequency in a medical context. This study filled that gap—it identified socio-demographic and TPB variables that relate to their English speaking frequency. Therefore, the study concludes that English speaking frequency in a medical context is dominantly related to perceived communication confidence, medical English speaking resources, and mothers' educational background.

7. Recommendation

The study revealed that more or less frequency of speaking English in a medical context is significantly related to communication confidence, Medical English speaking resources, mother's educational level, father's educational level, student's pocket money, and intention to speak English fluently in a medical context. The findings from this study also agree to findings reported from different studies. Therefore, the finding suggests:

- Educational policy makers to revise the policy related to designing medical English teaching materials for health students.
- MOE to prepare or design medical English (ESP) textbooks which are suitable for the students' level of proficiency.
- English instructors who teach health students
 - (a) to prepare and use medical English teaching aids, for example from YouTube, during teaching spoken English,
 - (b) to teach in English without frequently switching to local languages,
 - (c) to encourage students to speak in English most frequently in and outside of class, and (d) to introduce English Speaking Day.
- Ethiopian universities to equip libraries with medical English resources like audio and video.
- Health students to browse and use medical English speaking resources from internet, to follow up medical English speaking programs/channels, and to enhance their English speaking skill.
- Parents to buy or rent medical English speaking resources for their children as well as to speak with their children or to encourage them frequently to speak in English.
- Researchers to replicate or to extend this study by taking more universities and using regression analysis.

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Appendix 1

The relationship between intention to speak English fluently in a medical context and socio-demographic characteristics

Variables	N	%	Mean Rank	χ^2	df	p
Religion						
Islam	138	17.65	361.06	6.78	3	.079
Orthodox	508	64.96	389.29			
Protestant	115	14.71	429.08			
Others	21	2.68	439.21			
Total	872	100				
Ethnicity						
Oromo	204	26.42	410.68	5.18	3	.159
Amhara	353	45.73	374.44			
Tigre	90	11.66	406.19			
Others	125	16.19	366.92			
Total	772	100				
Region						
Oromia	221	28.15	420.66	8.019	5	.155
Amhara	285	36.31	383.41			
Tigray	64	8.15	421.19			
Addis Ababa	119	15.16	364.24			
SNNP ⁹	87	11.08	379.88			
Other	9	1.15	322.17			
Total	785	100				
Department						
Laboratory technology	184	23.5	409.24	5.012	3	.171
Pharmacy	199	25.42	362.08			
Midwifery	207	26.44	398.30			
Nursing	193	24.64	399.65			
Total	783	100				
Father's educational level						
No formal education	289	37.05	385.78	1.492	3	.684
Some primary education (Grades 1-8)	227	29.10	401.56			
Secondary Education(Grades 9-12)	77	9.87	368.12			
Post Secondary Education	187	23.98	393.59			
Total	780	100				

⁹South Nations & Nationalities people

Appendix 2

The relationship between frequencies of speaking health related matters in English *in a class* during the last 12 months and socio-demographic characteristics

Variables	n	%	Mean Rank	χ^2	df	p
Religion						
Islam	138	17.23	419.91	2.193	3	.53
Orthodox	520	64.92	396.62			
Protestant	120	14.98	406.14			
Others	23	2.87	359.83			
Total	801	100				
Ethnicity						
Oromo	212	26.73	402.32	.230	3	.97
Amhara	360	45.40	396.07			
Tigre	89	11.22	390.71			
Others	132	16.65	395.14			
Total	793	100				
Region						
Oromia	230	28.15	414.88	3.579	5	.61
Amhara	289	36.31	401.47			
Tigray	63	8.15	389.38			
Addis Ababa	120	15.16	379.30			
SNNP ¹⁰	91	11.08	420.19			
Other	11	1.15	352.64			
Total	804	100				
Department						
Laboratory technology	181. 73	23.5	388.41	1.45	3	.70
Pharmacy	205	25.50	414.52			
Midwifery	213	26.5	403.58			
Nursing	197	24.50	402.35			
Total	804	100				
Father's educational level						
No formal education	295	36.83	390.45	1.557	3	.70
Some primary education (Grades 1-8)	233	29.10	402.19			
Secondary Education(Grades 9-12)	81	10.10	402.36			
Post Secondary Education	192	23.97	415.19			
Total	801	100				

¹⁰South Nations & Nationalities people

Appendix 3

The relationship between frequencies of speaking health related matters in English *outside* a class during the last 12 months and socio-demographic characteristics

Variables	N	%	Mean Rank	χ^2	df	p
Religion						
Islam	137	17.27	422.80	2.842	3	.42
Orthodox	513	64.70	389.14			
Protestant	120	15.13	402.20			
Others	23	2.90	391.39			
Total	793	100				
Ethnicity						
Oromo	211	26.84	394.36	.869	3	.83
Amhara	354	45.04	386.76			
Tigre	89	11.32	403.33			
Others	132	16.80	403.56			
Total	786	100				
Region						
Oromia	230	28.86	396.04	2.680	5	.75
Amhara	284	35.63	394.11			
Tigray	64	8.03	421.71			
Addis Ababa	117	14.68	384.36			
SNNP ¹¹	91	11.42	420.78			
Other	11	1.38	430.55			
Total	797	100				
Department						
Laboratory technology	186	23.37	385.21	1.032	3	.79
Pharmacy	205	25.75	404.71			
Midwifery	208	26.13	399.19			
Nursing	197	24.75	403.85			
Total	796	100				

¹¹South Nations & Nationalities people