Students' Perception Towards the use of Traditional Medicine for the Treatment of Mental Disorders: The Case of Arba Minch University

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Abstract

The purpose of this study was to examine university students' perception towards the use of traditional medicines (TMs) in the treatment of mental disorders. Students-based cross sectional type of research design was employed to conduct this study. The findings of this study revealed that most of the study participant's 197(63.5%) preferred traditional medicines before joining to the Arba Minch University for the Treatment of mental disorders. But, 113(36.5%) of the respondents preferred modern medicines. The study also revealed that students expressed positive perception towards the use of traditional medicines in the treatment of mental disorders. And, there was statistically significant difference in perception scores due to college (F (3,298) =3.197, p=0.024 and year levels (F (2, 298) =3.466, p=.032), Ethnic-background and socio-economic status interaction effect (F (7,295) =2.403, p<0.05) in perception towards the use of Traditional Medicines (TMs) in the treatment of mental disorders. This study was concluded family was the main source of information about TMs. From this, the researcher believed families were influential in their decision to use TMs and played a role in providing assistance with uncertainty around decision-making and telling about a success of treatment for a problem.

Keywords: Perception; Traditional Medicines; Mental Disorders; University students.

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1. Introduction

1.1. Background of the study

The DSM-5 development website proposes the following new definition of mental disorder [3]: a behavioral or psychological syndrome or pattern that occurs in an individual and reflects an underlying psychobiological dysfunction.

The consequences of which are clinically significant distresses (e.g., a painful symptom) or disability (i.e., impairment in one or more important areas of functioning) and must not be merely an expectable response to common stressors and losses (for example, the loss of a loved one) or a culturally sanctioned response to a particular event (for example, trance states in religious rituals). To treat this psychobiological dysfunction, many people use different forms of treatment. From these, traditional medicines are high preferred by most for treating mental disorders.

According to the WHO definition, traditional medicine involves a variety of products and herbal treatments, animal products such as snake fats or oils, skeletons, beliefs and meditations and those which cannot be explained such as the practice of spiritual healing [2, 14,13,28, 24]. Yet use of traditional medicines (TMs) remains widespread in developing countries, while CAM or non-conventional medicine is increasing rapidly in developed countries. In industrialized or developed countries, adaptations of traditional medicine are termed "complementary" or "alternative" medicine (CAM) [13,28, 24].

In Ethiopia up to 80% of the population uses traditional medicine due to the cultural acceptability of healers and local pharmacopeias, the relatively low cost of traditional medicine and difficult access to modern health facilities , but there is the pressure from the national health policy that promotes biomedicine [20].

Many People in Ethiopia believe that health is a 'gift of God' and 'evil forces can cause diseases and this made the community rely on spiritual remedies. Due to this believe, the orthodox Christianity has many religious healing practices, for example, the priests of the church taking the cross where ever they go and blessing the people is usual here and they give massage over the disease-affected part of body with the cross. With the help of incantation, priest convert ordinary water to holy water, they spill it over the patients, and they enchantment spiritual words to drive away the evil spirit from the people those who suffered by evil attack [5,16,19].

However, education, training and research in this area have not been accorded in Ethiopia. The quantity and quality of the safety and efficacy data on traditional medicines are far from sufficient to meet the criteria needed to support its use worldwide. The reasons for the lack of research data are due not only to health care policies, but also to a lack of adequate or accepted research methodology for evaluating traditional medicine [9,5 ,27].

In Ethiopia, to the knowledge of the researcher, there is no research conducted on students' perception towards traditional medicine in the treatment of mental disorders. Despite its existence and continued use over many centuries, and its popularity and extensive use during the last decade, traditional medicine has not been fully researched in Ethiopia.

To fill this gap that identified above, the researcher planned to conduct study on students' perception towards the use of traditional medicine in the treatment of mental disorders by taking students of Arba Minch University in focus. The study is aimed at informing intervention strategies based on the findings. The basic questions that the researcher wished to address are stated as follows:

➢ What kinds of treatment providers Arba Minch University (AMU) students' preferred in treating mental disorders?

➢ What is the perception of students towards the use of traditional medicines in the treatment of different mental disorders?

➢ Is there a statistically significance difference in perception in terms of basic socio-demographic characteristics (sex, residence, ethnicity, religion, year level, socio-economic status of the family, and their college)?

1.2. Objectives of the Study

1.2.1. General Objective of the Study

The general objective of the study is to assess University students' perception towards the use of traditional medicines in the treatment of mental disorders.

1.2.2. Specific Objectives of the Study

The specific objectives of the study include:

- To investigate the kinds of treatment providers Arba Minch University students preferred in treating mental illnesses.
- To explore the perception of Arba Minch University students towards the use of traditional medicines in the treatment of different mental disorders.
- To see whether there is differences in perception in terms of basic socio-demographic characteristics (sex, residence, ethnicity, religion, year level, socio-economic status of family, and their college).

1.3. Significance of the Study

The main purpose of the study is to assess university students' perception towards the use of traditional medicines. As a whole, this research is believed to have different significance or implication for students, Ministry of Health, traditional healers, modern mental health care workers, and researchers.

For modern mental health care workers and Ministry of Health **i**ncreased knowledge of what influences their likelihood to use traditional medicines which is essential for understanding how internal and external factors can play a role in mental health care decisions. And, an understanding of the rationale for mental health choices will enable practitioners/medical doctors to guide young adults in selecting mental health care options and will provide a basis for mental health planning that includes a range of services.

Accurately capturing perception of people about traditional medicine will provide a better estimate of their likelihood to use traditional medicines. This will, in turn, help to inform health care professionals and other concerned body about the level of influence for traditional medicine in the adolescent and young adult population; information that is currently not known. An appreciation of level of demand is particularly important when considering the need for integrative care models and studies aimed at utilization patterns.

Finally, the study is recommending possible solutions, for the betterment of future implementation of traditional medicine for mental health care professional and traditional healers. It may also serve as a springboard for other researchers to take in-depth study for further investigation in the field and issue.

2. Materials and Methods

2.1. Study Area

The study was conducted in Arba Minch University, Arba Minch. As it is possible to see in its Registrar archive in the website, Arba Minch University is nestled at the foot of Gamo Gofa Mountain ranges facing huge Abaya Lake; set in idyllic surroundings forms the part of East African Rift Valley. Its historical foundation dates back to late 1980s.With an objective to address water-related issues, the then Arba Minch Water Technology Institute (AWTI) was established in September 1979 EC (1986). Then, AWTI used to offer short and long-term trainings; conducting research and rendering consultancy services in water sector.

Until 1993, the institute was under Water Resource Commission and then it got transferred to the Ministry of Education. In the wake of nation's development plan to produce qualified manpower, the aforesaid institute was scaled up to the level of university as Arba Minch University in 2004.

2.2. Study Design

Students-based cross sectional type of research design was employed to conduct this study. Because the researcher collect data at one point in time to assess their perception towards traditional medicine in treatment of mental disorders.

2.3. Sample Size and Sampling Techniques

2.3.1 Target population/Source

All first, second, and third years students residing at Arba Minch University was the source/target population of this study. These populations were only regular undergraduate Arba Minch University students who enrolled during study period. The reason is that extension and distance students were not found at the same time with the regular undergraduate students during data collection

2.3.2. Sample and Sampling Technique

327 samples was taken (confidence =95 % or marginal error= 5%). After students are stratified in their sex, the

researcher proportionally determined the number of females and males i.e. 97 (29.66 %) of respondents were females and the rest 230 (70.34%) were males. The sample is drawn from four colleges in the first three consecutive years based on their proportion

3. Results

This chapter presented analysis of the data collected through questionnaire from students of Arba Minch University.

The chapter is organized in thematic approach and focused on socio-demographic characteristics of the sample, the types of treatment provider that students preferred before coming to the University, perception of students towards the use of traditional medicines in the treatment of mental disorders, and difference in students perception towards the use of traditional medicine across socio-demographic characteristics. To do these, different statistical techniques are employed in the analyses of the variables under consideration.

3.1. Socio-demographic characteristics of the sample

Table 1: Socio-demographic characteristics

Characteristic	Response Categories	N	%	Characteristic	Response Categories	N	%
College	College Medici	49	15.8	Religion	Orthodox	162	52.3
	College of bu.Ec	71	22.9		Protestant	80	25.8
	College of Agr.	30	9.7		Muslim	66	21.3
	College of SS	160	51.6		Other *	2	.6
Year of study	1st year	115	37.1	Age	16-18 yr	7	2.3
	2nd year	68	21.9		19-24 yr	280	90.3
	3rd year	127	41.0		25-40 yr	23	7.4
Sex	Female	90	29.0	Residence	Rural	200	64.5
	Male	220	71.0		Urban	110	35.5
Socio-economic status of the family	Very low	4	1.3		Tigrie	38	12.3
	Low	35	11.3		Oromo	112	36.1
	Medium	208	67.1	Ethnic background	Amhara	125	40.3
	High	52	16.8		Other**	35	11.3
	Very high	11	3.5	Total		310	100

As shown in table 1 above, the participants of this study were categorized by college. With regard to their college, the table indicated that the majority 160(51.6%) of the respondents were from the College of Social

Sciences and 71(22.9%), 49(15.8%) and 30(9.7%) of the respondents were from the College of Business and Economics, College of Medicine, and College of Agricuture respectively.In terms of year level, 115(37.1%) of the respondents were first year, 68(21.9%) were from second year and the remaining 127(41%) were from third year.

An attempt was also made to categorize respondents by sex, age and religion. Their age ranges were from 18-34 years (the median age was 22). The majority of them 280 (90.3%) were early adulthood (19-24 years). In terms of sex, the majority of respondents 220 (71%) were males while the remaining 90 (29%) were females. In terms of religion, the majority 162 (52.3%) of the respondents were orthodox followers, followed by of protestants 80 (25.8%) and the rest 66(21.3%) and 2(.6%) were Muslim and other religion (Catholic, traditional believer, pagans/non-religious) followers respectively.

 Furthermore, the participants of the study were also categorized by ethnic background, socio-economic status of their family and residence before coming to the university. Regarding ethnic background, the majority 125(40.3%) of the respondents were Amhara and followed by oromo 112 (36.1%) and the rest 38(12.3%) and 35(11.3%) (22.1%) were Tigrie and other ethnic background (Addis Ababa, Somalia, Gurage, Walyita, Sidama, Gamo-gofa, Harar etc) respectively. The majority 208(67.1 %) of the respondents' o family socio-economic status was medium and the rest 26(25%), 52(16.8%), 35(11.3%), 11(3.5%), 4(1.3%) were high, 26(25%), 35(11.3%), 52(16.8%), 11(3.5%), 4(1.3%) were high, very high, low, very low respectively. Regarding their residence before coming to the university, the majority of respondents 200(64.5 %) was from rural and the remaining 110 (35.5%) students were from urban areas.

3.2. The treatment students preferred before coming to the university
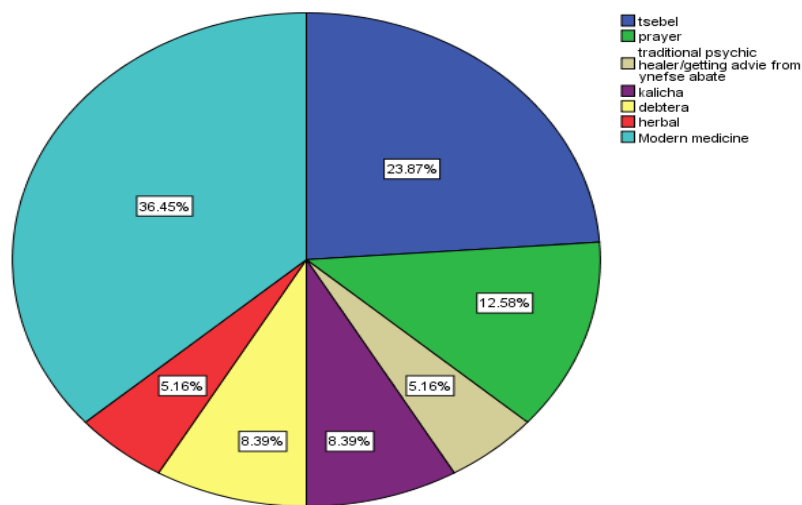
Figure 1: the types of treatment students preferred before coming to the university

The figure 1 showed the choice of students between going to a modern clinic and going to a traditional healer in the treatment of mental disorders before coming to the university.

The majority 197 (63.5%) of the respondents preferred traditional medicines before joining to the university for the treatment of mental disorders. From this, Tsebel/Holy Water preferred by most respondents (about 23.9%) followed by Prayer 39(12.6%) and the rest were Kalicha 16(8.4%), Debtra, 16(8.4%), herbal medicine 16(5.2%) and contacting with Yenfese abate (traditional psychic healers) 16(5.2%) of respondents. But, the remaining 113(36.5%) of the respondents preferred modern medicines.

3.2.2. The association between preferring traditional medicines and socio-demographic characteristics

As can be seen from table 2 below, 197 (63.5%) of the respondents preferred different forms of traditional medicines before coming to the university. From this, the Holy Water has been preferred by most socio-demographic characteristics of the respondents. As indicted in table 4, significant differences were observed in the preference of various TM categories across ethnicity (χ^2 (15) =58.042, p=.000), residence (χ^2 (5) =13.018, p=.023) and socio-economic status of the family (χ^2 (20) =57.467, p=.000) of the respondents. However, there was no significant difference (χ^2 (5) =6.153, p=.292) between male and female students regarding on the choice of different types of traditional medicines.

Table 2: The association between preferring traditional medicines and socio-demographic characteristics

Socio-demographic variable		Type of traditional treatment						Total
		Tsebel	Prayer	TPH	Kalicha	Debtera	HM	
Sex	Female	20(10%)	16(8.1%)	4(2%)	5(2.5%)	10(5.1%)	7(3.6%)	62(31.6%)
	Male	54(27%)	23(11.7%)	12(6%)	21(10.7%)	16(8.1%)	9(4.6%)	135(68%)
Residence	Rural	61(31%)	22(11.2%)	9(4.6%)	22(11.2%)	19(9.6%)	11(6%)	144(73%)
	Urban	13(6.6%)	17(8.6%)	7(3.6%)	4(2%)	7(3.6%)	5(2.5%)	53(26.9%)
Socioeconomic status	Very low	0	3(1.5%)	0	1(0.5%)	0	0	4(2%)
	Low	6(3%)	6(3%)	3(1.5%)	8(4.1%)	3(1.5%)	0	26(13.2%)
	Medium	59(23%)	21(10.7%)	9(4.6%)	13(6.6%)	13(6.6%)	8(4.1%)	123(62%)
	High	9(4.6%)	4(2%)	3(1.5%)	2(1%)	10(5.1%)	8(4.1%)	36(18%)
	Very high	0	5(2.5%)	1(0.5%)	2(1%)	0	0	8(4.1%)
Ethnic background	Tigrie	7(3.6%)	1(0.5%)	1(0.5%)	0	9(4.6%)	3(1.5%)	21(11%)
	Oromo	24(12%)	15(7.6%)	6(3%)	22(11%)	6(3%)	2(1%)	75(38%)
	Amhara	33(17%)	22(11.2%)	6(3%)	3(1.5%)	10(5.1%)	7(3.6%)	81(41%)
	Other	10(5.1%)	1(0.5%)	3(1.5%)	1(0.5%)	1(0.5)	4(2%)	20(10.2%)

3.2.3. The association between types of traditional medicine and their use

As can be seen in table 3, to determine the purposes of using TMs, the survey provided students a list of six different TMs along with three different options for purposes (i.e., preventing illnesses, treating illnesses, and promoting health). For each traditional medicine, students were asked to specify its purpose in using the specific traditional medicines. Students were allowed to choose more than one purpose for each TM. The number of university students who preferred each TM before coming to the university was obtained. The majority of the respondents used traditional medicines (63.5%, n =197). The majority of the respondents used traditional medicine for treating and preventing illness, 110(35.5%) and 75(24.2%) respectively. Only 12(3.9%) of the respondents reported that they used traditional medicine for promoting their health. The most preferred TMs among university students for treatment and prevention purposes were Tsebel/Holy Water (N=38(20.7%), N=27(14.7%) respectively. However, TPH/traditional psychic healer or getting advice from 'yenfse abate' was highly preferred by students for the purpose of promoting health. As can be seen from table 5 above, there were significant differences (χ^2 (10) =35.948, P=0.00) found in various categories of TMs and their uses.

Table 3: The association between types of traditional medicine and their use

Types of TMs	Use of TM					
	Preventing illness		Treating illness		Promoting health	
	N	%	N	%	N	%
Tsebel	27	14.7%	38	20.7%	3	1.6
Prayer	19	10.3%	14	7.6%	2	1.1
TPH	6	3.3%	4	2.2%	6	3.3
Kalicha	9	4.9%	17	9.2%	0	0
Debtera	8	4.3%	15	8.2%	0	0
HM	4	2.2%	11	6.0%	1	0.5
Total	75	24.2	110	35.5	12	3.9

3.2.4. The number of times respondents visited a traditional healer before coming to the University and source of knowledge for TMs

Table 4 showed the number of times respondents visited a traditional healer before coming to the University and source of knowledge for TMs. As indicated in table 6 above, 83(26.8%) of the students visited traditional healers for more than 6 times, and 46(14.8%), 35(11.3%), 24(7.7%) and 5(1.6%) for once, none, 2-3 times and 4-6 times respectively. That is, the majority of the students visited traditional healers for more than 6 times in their life. Furthermore, the above table (table 6) indicated that the main source of information for the students about TMs is their families 218(70.3%) followed by their friend 54(17.4%) and the media 38 (12.3%).This means that their families determined the students to use TMs. Some students also reported that their friends were influential in their decision to use traditional medicines.

Table 4: The number of times respondents visited a traditional healer before coming to the University and source of knowledge for TMs

		N	%
The number of times students visited Traditional healers	None	35	11.3
	Once	46	14.8
	2-3 times	24	7.7
	4-6 times	5	1.6
	more than 6 times	83	26.8
	Total	193	62.3
Source of knowledge for TMs	Families	218	70.3
	Media	38	12.3
	Friend	54	17.4
	Total	310	100

3.2.5. The association between different traditional medicines and changes joining University

The table 5 showed whether students' use of different forms of traditional medicine was associated with joining and staying in the university indicated that of the different forms of traditional treatment provided by traditional healers, the use of Tsebel/Holy Water 27(14.3%) followed by prayer 21(11.1%) increased after joining the University. But the use of debetra 26(13.8%), herbal medicine 11(5.8%) and kalicha 14(7.4%) decreased after joining the university. This indicted that most students preferred Tsebel and Prayer (more religious types) than kalicha and debtra after coming and staying in the University. The table 7 also indicated that, there were significant difference (χ^2 (10) =57.689, P=0.00) found in the use of various TMs categories after joining in the University.

Table 5: The association between different traditional medicines and changes joining University

	Changes after joining in the university			Total
	I now go more often	I now go less often	I now go the same as before	
Type of TMs				
Tsebel	27(14.3%)	24(12.7%)	18(9.5%)	69(36.5%)
Prayer	21(11.1%)	11(5.8%)	7(3.7%)	39(20.6%)
TPH	11(5.8%)	5(2.6%)	0	16(8.5%)
Kalicha	8 (4.2%)	14(7.4%)	1(0.5%)	23(12.2%)
Debtera	0	26(13.8%)	0	26(13.8%)
HM	5(2.6%)	11(5.8%)	0	16(8.5%)
Total	72(38.1%)	91(48.1%)	26(13.8%)	189(100%)

3.3. Perception of students towards the use of traditional medicine in the treatment of mental disorders

Table 6: Over all perception of students towards the use of traditional medicines in the treatment of mental disorders

Mean	SD	t	Df	P
55.15	11.1	11.27	309	.000

As can be seen from the Table 6, the sample mean (55.15) of perception score was different from the hypothesized value (48) and this was statistically significant. Therefore, students have positive perception towards the use of traditional medicines for the treatment of mental disorders.

3.3.1. Percentage, mean and standard deviation each item

Table 7: Percentage, mean and standard deviation each item

No	Statement	Responses in %			Descriptive	
		SA+A	UD	SD+D	M	SD
1	Traditional medicines are more holistic (physical, social, spiritual, psychological consideration) than modern medicine.	67.7	4.8	27.4	3.55	1.37
2	*TMs have low status compare to other medicine to treat mental illnesses.	32.6	3.9	63.5	3.44	1.302
3	*Patients on TMs hardly ever get better.	41.3	7.7	51	3.14	1.402
4	*TMs are only effective in treating minor complaints and ailments.	27.1	11	61.9	3.41	1.258
5	*TMs are unrewarding because the treatment is so lengthy.	31.3	7.7	61	3.42	1.299
6	*TMs have just only a placebo effect.	41.3	12.6	46.1	3.11	1.415
7	*Much of TMs are actually dangerous to the mental health of patients.	34.5	9.4	56.1	3.37	1.385
8	TMs have advanced considerably in recent years in treating mental illnesses patients.	50.6	12.3	37.1	3.2	1.305
9	TMs have fewer side-effects than modern treatment	74.5	7.1	18.4	3.75	1.283

Table 7 showed how much students agreed on each statement that measure perception towards the use of traditional medicines. The mean and standard deviation for each item were also shown in the same table.

Table 7 was helps to identify the most important qualities of a TMs perceived by students. The mean score of 3.00 or above is interpreted as an overall positive perception of the characteristics, while scores less than 3.00 is an indicative of negative perception of characteristics of TMs. And, as can be seen from the above (Table 9),

items 9 and 11 were agreed by 74.5 % and 69% of respondents (strongly agree and agree) their corresponding mean rating value were 3.75 and 3.73. The mean rating values these items were substantially higher than the expected average, (i.e. 3). This shows that the students highly perceive that traditional medicine has fewer side-effects than modern medical and they favored to be taught about treatments TMs in medical school and related fields.

Items 2, 3, 4, 5, 6 and 7 were stated negatively while the remaining statements were presented positively. For analysis purpose, the responses of the negatively stated statements were reversibly scored. Thus, the response frequencies of strongly agree and agree categories for negatively stated items show the negative perception of respondents. Similarly, response frequencies of the strongly disagree and disagree categories indicate the positive perception while the undecided category indicates neutral perception.

Moreover, items 10,1, 15, 13 and 16 were agreed by about 68.4%, 67.7%, 65.8%, 64.8%, and 62.9% of respondents respectively (strongly agree and agree), and their mean rating values found to be 3.67, 3.55, 3.5, 3.58 and 3.41 in that order, which were the highest than expected average(3.00) .This shows that students felt that Practitioners of TMs are able to offer patients more time and are more prepared to listen than modern doctors , aspired traditional medicines are more holistic (physical, social, spiritual, psychological consideration) than modern medicine, favored TMs provides more cost-effective treatment than modern medicine , agreed a surprising number of patients claim that TMs is effective to curing their mental illness and I will choose for traditional medicine for treating mental illness even if it is expensive . Besides, the only positive items that received relatively low percentages of response were statement 8 (about 50.6%) with mean rating values of 3.2.This show that relatively some students agreed to perceive that TMs has advanced considerably in recent years in treating mental illnesses patients. This indicates that students perceive the above characteristics' as the most important qualities of TMS.

On the other hand, while item 2 was strongly disagreed by 63.5 % of the respondents with mean values of 3.44. And, items 4 and 5 were also disagreed by 61.9% and 61% of the respondents (strongly disagree and disagree) respectively. The mean rating values of these items were 3.41 and 3.42 in that order. This shows that the students disagreed to feel that TMs have low status compare to other medicine to treat mental illnesses, to consider TMs are only effective in treating minor complaints and ailments, and also to felt that TMs is unrewarding because the treatment is so lengthy.

Besides, the only items that received relatively low percentages of response were statement 6 (46.1%) with mean rating values of 3.11.This show that relatively some students disagreed to perceive that TMs have just only a placebo effect.   .

The responses of students were further examined to see if perception towards TMS differs by socio-demographic characteristics.

3.4. Difference in perception score due to socio-demographic characteristics

Since college and year of study have good theoretical reason to see interaction effects, the researcher used two-

way ANOVA to see whether there is statistically significant difference in perception due to college and year of study.

Table 8: Differences in perception score due to college and year of study

Source	Type III Sum of Squares	Df	Mean Square	F	P
Corrected Model	9.986[a]	11	.908	4.839	.000
Intercept	91.203	1	91.203	486.188	.000
College	1.799	3	.600	3.197	.024
Years	1.300	2	.650	3.466	.032
college * years	5.997	6	1.000	5.328	.000
Error	55.901	298	.188		
Total	215.000	310			
Corrected Total	65.887	309			

a.   R Squared = .152 (Adjusted R Squared = .120

As table 8 above indicated, the college main effect was significant (F (3,298) =3.197, p=0.024). But, the examination of the post-hoc test showed College of agriculture students (mean=56.8667) had slightly high mean scores as compared with other colleges (mean of College of medicine students =55.9184, mean of College of Social Studies students =55.2625, and mean of College of business and economics students=53.1516). The closer of the perception means score were indicating that slightly difference by colleges.

In addition, as showed in table 8 above, year of study has an impact on perception score of students. There was a statistically significant difference in perception scores due to year levels (F (2, 298) =3.466, p=.032).

To look where the significant difference lies, scheffe multiple comparisons were conducted

Table 9: Scheffe Multiple Comparisons of perception score across year of study

Year of study	Year of study	Mean Difference (I-J)	Std. Error	P
1st year	2nd year	4.47941[*]	1.67985	.030
	3rd year	4.02659[*]	1.42094	.019
2nd year	1st year	-4.47941[*]	1.67985	.030
	3rd year	-.45281	1.64712	.963
3rd year	1st year	-4.02659[*]	1.42094	.019
	2nd year	.45281	1.64712	.963

*. The mean difference is significant at the 0.05 level.

Table 9 *(continued)*

No	Statement	Responses in %			Descriptive	
		SA+A	UD	SA+A	M	SD
10	Practitioners of TMs are able to offer patients more time and are more prepared to listen than modern doctors	68.4	7.4	24.2	3.67	1.283
11	TMs should be taught in medical school related fields.	69	8.1	22.9	3.73	1.209
12	Treating different disease using TMs are safer than using modern treatments.	63.5	6.5	30	3.5	1.4
13	A surprising number of patients claim that TM is effective to curing their mental illness.	64.8	12.6	22.6	3.58	1.17
14	Repeated treatments in TMs have less harm than modern medicine.	62.3	9.4	28.4	3.4	1.408
15	TMs provide more cost-effective treatment than modern medicine.	65.8	4.5	29.7	3.5	1.276
16	I will choose for traditional medicine for treating mental illness even if it is expensive.	62.9	2.3	34.8	3.41	1.422

Note: SA=strongly agree, A=Agree, UD=undecided/am not sure, D=Disagree, SD=strongly disagree, * indicates negatively stated items, M=mean, SD= standard deviation

As it is shown in the table 9, there was a statistically significant difference at the $p<.05$ level in perception scores for year levels ($F (2, 298) =3.466$, $p=.032$). Despite reaching statistical significance among some groups, the actual difference in mean scores between the second and third year was quite small. The effect size, calculated using eta squared, was .03. Post-hoc multiple comparison using Scheffe revealed that first year (mean=57.7982, standard deviation=10.47389) obtained statistically significant higher perception mean scores than second year ((mean=53.3188, standard deviation=12.60426) and third year ((mean=53.7717, standard deviation=10.5536).

Table 10: the differences in perception score due to religion.

Variables		Sum of Squares	Df	Mean Square	F	P
Religion	Between Groups	414.082	3	138.027	1.109	.346
	Within Groups	38095.792	306	124.496		
	Total	38509.874	309			

Table 10 indicated, there is no statistically significant difference ($F(3,306)=1.109,P=.346$) across different religion followers in their perception score towards the use of traditional medicines in the treatment of mental disorders.

Table 11: Differences in perception score due to residence

	Mean		t-test for Equality of Means		
	Urban residence	Rural residence	T	df	P
Perception score	54.663	55.42	.570	308	.569

Table 11 showed the difference in perception score between students who came from rural and urban areas/origins. As the above table (Table 13) indicated, there was no statistically significant difference (t=0.570, d.f=308, p=0.569) in perception towards the use of traditional medicines in the treatment of mental disorders between those students' where coming from rural (mean=55.42, standard deviation=11.377) and those students coming from urban areas (mean=54.663, standard deviation=10.797). But, the slight difference in value mean scores were observed i.e. students coming from rural showed slightly higher mean score than students coming from urban areas.

Table 12: Difference in perception score due to gender

	Mean		t-test for Equality of Means		
	Male	female	T	df	P
Perception score	53.6455	58.833	4.02	188.8	.00

As can be seen from table 12 above, there is statistically significant difference (t= 4.02, d.f=308, p=0.00) in perception towards the use of traditional medicines in the treatment of mental disorders between female (mean=58.833, standard deviation= 9.85997) and male (mean=53.6455, standard deviation=11.33515) students.

Since ethnicity and socio-economic status have good theoretical reason to see interaction effects, the researcher use Two- way ANOVAs to see whether there is difference in perception due to ethnicity and socio-economic status of family.

Table 13: Differences in perception score due to ethnicity and socio-economic status of family

Source	Type III Sum of Squares	Df	Mean Square	F	P
Corrected Model	3668.310[a]	14	262.022	2.219	.007
Intercept	177729.192	1	177729.192	1504.815	.000
Ethnicity	89.022	3	29.674	.251	.860
SES	763.864	4	190.966	1.617	.170
Ethnicity * SES	1986.325	7	283.761	2.403	.021
Error	34841.564	295	118.107		
Total	981437.000	310			
Corrected Total	38509.874	309			

a. R Squared = .095 (Adjusted R Squared = .052)

As depicted in table 13 , the ethnicity main effect for total perception scores was not statistically significant at (F (3,295) = .251, p>0.05). And the table 13 also shows socio-economic status. of the family main effect did not statistically significant at (F (4,295) = 1.617, p>0.05) in perception means scores.

However, ethnic-background and socio-economic status have interaction effect which is statistically significant (F (7,295) =2.403, p<0.05).
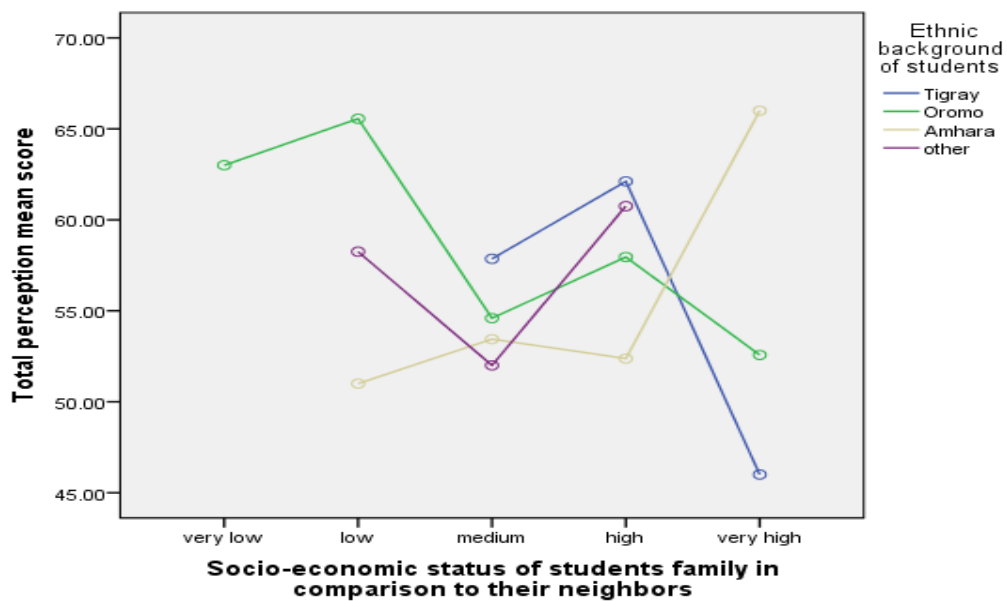
Figure 2: Ethnic-background and socio-economic status of the family interaction effect on students perception towards the use of traditional medicine for the treatment of mental disoredrs

As can be seen from figure 2, the magnitude of differences in perception means score for various ethnic background students was depends on SES of the family. For instance, for Tigray students whose family have high SES showed higher perception mean score (mean=62.11) than medium socio-economic status of family, but they have low perception score (mean of 46) for very high SES of the family. On the other hand, for Oromia students, those students who had low socio-economic status of family have had high perception mean score (mean=65.556) than high socio-economic status. Additionally, the fig 2 also showed for Amhara students, medium (mean=53.447) and high SES of the family (mean=.52.375) have high perception mean score

4. Conclusion and Recommendations

4.1. conclusion

Based on the major findings enumerated above, the following conclusions were drawn:

❖ The majority of the respondents were preferred different forms of traditional medicines in the treatment of mental disorders for the purpose of treating and preventing illness. These because of safety of traditional medicines.

❖ Family was the main source of information about TMs. From this, the researcher believed families were influential in their decision to use TMs and played a role in providing assistance with uncertainty around decision-making and telling about a success of treatment for a problem.

❖ Majority of University students expressed positive perception towards the use of traditional medicines in the treatment of mental disorders. And, they associated the use of traditional medicines in the treatment of mental disorders were related to available and affordability. Because such factors, most university have positive perception score.

❖ There was statistically significant difference in perception scores due to the college, year levels, college and year of study interaction effect, ethnic-background and socio-economic status interaction effect. The researcher believed that the cause of difference in gender is due to females were more conscious of their health, serious and open-minded. And in terms of year level, first year students had more positive perception than the remaining, which indicates living in campus and increasing in academic level decrease the perception of students.

4.2. Recommendations

Based on the finding of the study, the following recommendations are made:

• The study indicated most students disagreed to feel that traditional medicines may result in fatal outcome and to consider its causes to different toxicity such as ulcer, liver and kidney, so curriculum developers should design course of study in health related fields and then that health professional and psychologist may have good knowledge about TMs and its associated risk and finally they create awareness about the risks of using them.

• Through the result of present study revealed that students currently enrolled in AMU have developed positive perception, it requires further investigating about the underlying reasons in order to aware them by

other researchers. And, the federal government, academia and the private sector have also begun to offer more support for education and research about traditional medicines.

- And, the government can identify the capacity gaps and building the capacity of traditional medicine practitioners to improve upon the practice.

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Appendix

Questionnaire to be filled by university students

The purpose of this questionnaire is to gather information about university students' perception towards the use of traditional medicine in the treatment of mental disorders and their associated perceived benefits and risks. The study can be successfully accomplished only when you complete all the items honestly and frankly. Please be genuine and honest while responding to each item in the questionnaire. Your responses will be kept confidential and used only for research purpose. Don't write your names in any page of the questionnaire.

Thank you for taking your time to complete this questionnaire.

Part I: Socio-demographic characteristics

Direction: Please respond to the following questions by putting a"✓ "mark or writing the required information on the space provided.

1. College: _____

2. Department: _____

3. What is your year of study? 1st year ☐   2nd year ☐   3rd year ☐

4. Age: _____

5. Sex: female ☐   male ☐

6. What is your religion? _____

7. What is your ethnic background? _____

8. How do you rate the socio-economic status of your family in comparison to your neighbors? Very low ☐
Low ☐   Medium ☐   High ☐   Very high ☐

9. Your residence before coming to the university: rural ☐   urban ☐

Part II: Medicine providers used in the past

Direction: Please respond to the following questions which ask about medicine providers that you might have used in the past by putting a"✓ "mark or writing the required information on the space provided.

1. If you had the choice between going to a clinic and going to a traditional healer in the treatment of mental disorders in the past years (before coming to the university), what was your choice?

Modern medicine ☐   Traditional medicine ☐

2. If your answer for the above question is traditional treatment, what was the type of treatment provided by traditional healers that you used in the past?

☐Tsebel   ☐Prayer   ☐Traditional psychic healers'/counselors'

☐ Kalicha   ☐ Debtera   ☐Herbal medicine

If other specify_____

3. Have you used traditional medicines (TMs) for the following purposes? (You can give more than one answer)

 ☐ preventing illness   ☐ treating illness   ☐ promoting health

4. How many times did you visit a traditional healer last year?

☐ None ☐ Once   ☐ Two to three times ☐ Four to six times   ☐ More than six times

5. When you compare the number of times that you visit a traditional healer from before coming to the university),

☐ I now go more often   ☐ I now go less often   ☐ I now go the same as before

7. What is your source of knowledge for TM?

☐ Family   ☐ Media (newspaper/internet)   ☐ Friend

   If other, please specify_____

Part III: Perception about TM use in the treatment of mental disorders

Direction: The following statements are about your perception towards the use of TM for the treatment of mental illnesses. Please, respond to each statement by putting a "✓"mark under the number that indicates your degree of agreement The numbers 1 to 5 indicate:**(1) Strongly disagree (2) Disagree (3) I am not sure (4) Agree (5) Strongly agree**

Note: Traditional medicines means the average of all forms of traditional medicines (Tsebel, prayer, kalicha, debtra, kalicha,---) you preferred.

No	Statement	1	2	3	4	5
1	Traditional medicines are more holistic (physical, social, spiritual, psychological consideration) than Modern medicine					
2	TMs have low status compare to other medicine to treat mental illnesses					
3	Patients on TMs hardly ever get better.					
4	TMs are only effective in treating minor complaints and ailments.					
5	TM is unrewarding because the treatment is so lengthy.					
6	TMs have just only a placebo effect.					
7	Much of TM is actually dangerous to the mental health of patients.					
8	TMs have advanced considerably in recent years in treating mental illnesses patients					
9	TMs have fewer side-effects than modern medical treatments.					
10	Practitioners of TMs are able to offer patients more time and are more prepared to listen than modern doctors					
11	TMs should be taught in medical school and related fields.					
12	Treating different disease using TM is safer than using modern treatments.					
13	A surprising number of patients claim that TM is effective to curing their mental illness.					
14	Repeated treatment in TMs have less harm than modern medicine					
15	TM provides more cost-effective treatment than modern medicine.					
16	I will choose for traditional medicine for treating mental illness even if it is expensive.					