

The Use of Traditional Medicine in treating Hypertension

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Abstracts

Hypertension is one of the primary risk factors for heart disease and stroke and one of the leading causes of death worldwide. Hypertension cases have been increasing over the years and as long as the food habit and lifestyle of Bhutanese remain the same, it will be one of the major causes of death in the years to come. Hypertension or high blood pressure is not curable but it is manageable. Traditional medicines are found to be effective in reducing high blood pressure and in controlling hypertension. Therefore, this paper attempts to present the use and effectiveness of Traditional Medicine in treating Hypertension and to examine its side effects using purposeful sampling with 20 hypertension patients. Data collection was carried out by using self-administered questionnaires, structured interview, and some available documentary sources. The results and findings of the study shows that the BTM is significantly effective in controlling and lowering hypertension. The hypertension medicine is not only one herb as it contain several herbs and each herb has significant effects which accumulate to become effective in lowering high blood pressure. The side effects of traditional medicine depend upon the herbal remedy, the dosage, and any pharmaceutical medications taken by the patient. Any substance ingested into the body can cause side effects.

Background

Hypertension is a blood pressure that is higher than the usual normal pressure or is a common disorder in which blood pressure remains abnormally high (reading of 140/90 mm Hg or greater). Further, blood pressure is recorded with two

numbers. The systolic pressure (higher number) is the force at which the heart pumps blood around the body. The diastolic pressure (lower number) is the resistance to the blood flow in the blood vessels. They are both measured in millimeters of mercury (mmHg). According to Sathya & Vigayagopalan (2013), our heart being a muscular lobe contracts itself and pumps out purified blood through the arteries. The resultant pressure is termed as systolic. After that the heart has to shrink itself to create a negative pressure so that the carbon-dioxide rich blood can be brought back to the heart for purification. The negative pressure created while cardiac muscles relax is called diastolic pressure. A normal blood pressure will be 120 diastolic and 80 as systolic.

In the Bhutanese traditional medicine (BTM), Hypertension is defined as an abnormal cause due to imbalance in blood and wind (Pervasive *rLung* or *KhyabyedrLung*). The two organs blood pressure affects are the heart as the center of veins and the brain as the center of nerves. In Bhutanese traditional Medicine system we distinguish Blood pressure into two types; 1) Blood domination: This is caused when there is over affliction on the mind, body and soul; suppressing the heat for long periods, taking alcoholic beverages and by carrying out heavy work. 2) Wind domination: This is mainly caused by insomnia, empty stomach, suppressing the cold for long periods, shouting and anxiety (Wangchuk, 2010). Pervasive *rLung* is located within the heart and it pervades throughout the body. It is responsible for lifting and placing of the legs while walking, stretching and contraction, and the opening and closing of the body orifices. Most activities that involve movement are reliant on pervasive *rlung*. Therefore, the main cause of hypertension in BTM is mainly due to the effect of pervasive *rLung* (*KhyabyedrLung*) which are caused by factors such as standing for long duration, getting

stressed, aversion, unhealthy food and thinking for long period of time for a certain thing. When the pervasive *rLungis* affected by certain factors the heart pumps the blood quickly and the *Khyabyed rLung* becomes abnormal.

The World Health Report 2002 identified hypertension, or high blood pressure, as the third ranked factor for disability-adjusted life years. Hypertension is one of the primary risk factors for heart disease and stroke and one of the leading causes of death worldwide. Recent analyses have shown that as of the year 2000, there were 972 million people living with hypertension worldwide, and it is estimated that this number will escalate to more than 1.56 billion by the year 2025(Chockalingam,2006).High blood pressure, or hypertension, is the most important risk factor for premature deaths, accounting for half of all deaths caused by cardiovascular disease and 13.5 percent of all deaths each year. It affects 26 percent of the population worldwide.

According to the latest report by WHO (2014), hypertension deaths in Bhutan reached 2.05% of total deaths. The age adjusted Death Rate is 17.52 per 100,000 of population. Bhutan ranks 83rd in the world.According to annual health bulletin (2009) 20,347 cases of hypertension had been referred to hospital in 2009, up from 19,347 cases in 2008. In 2004, there were only14, 195 cases of hypertension.

These statistics show that hypertension cases have been increasing over the years“As long as the food habit and lifestyle of Bhutanese remain the same, it will be one of the major causes of death in the years to come,” said one of the medical officials in Thimphu. However, 80 percent of hypertension cases referred to the hospital are preventable. The main cause of hypertension is salt and fatty food without which a Bhutanese meal would be incomplete. “One of the main causes of morbidity in the country is hypertension because we consume tra-

ditional diet, which is very rich, and our lifestyle has become much easier,” said Dr. Tashi Wangdi. According to him, most people think that, if they suffer from hypertension, they should have symptoms, which is true only with 50 percent of the cases. Another medical official at Jigme Dorji Wangchuk National Referral Hospital (JDWNRH) said that Bhutanese have the tendency to consume more salt. Hypertension is also the second highest cause of kidney failure cases in the country today. (Choden, 2010).

High blood pressure, or hypertension has been called the "silent killer", because it often has no warning signs or symptoms, and many people do not even know that they have it. Over time, the constant pressure overload causes accumulating damage that eventually becomes more than our circulatory system can handle, often leading to serious health problems. Hypertension or high blood pressure is not curable but it is manageable. A variety of medications are available to treat hypertension. In addition life-style changes, such as diet, exercise, not smoking and weight management helps to lower a person's blood pressure.

According to Dr. Schnitzer (2006) modern medicine knows about the high risk hypertonic patients are living in, but doesn't cure hypertension. Therefore, to reduce high blood pressure, a lifelong treatment with daily intake of pills is said to help patients suffering from hypertension.

According to an American doctor Kresser (2015), blood pressure medications can be effective in more pronounced cases of hypertension (referred to as “Stage 1” and “Stage 2” hypertension, depending on the severity). However, “effective” is somewhat a deceptive term, because while blood pressure medications do reduce blood pressure, they do not address the underlying cause of the high blood pressure in the first place and any treatment that does not address the underlying cause of a problem is ultimately ineffective because blood pressure medications

are notorious for their side effects. These vary depending on the class of medication taken. For example: Diuretics flush extra water and sodium from the body. Their side effects include frequent urination; erectile dysfunction; weakness, leg cramps or fatigue and gout. Beta-blockers make your heart beat more slowly and less forcefully. Their side effects include asthma symptoms, cold hands and feet, depression, erectile dysfunction, and insomnia and sleep problems. Angiotensin Converting Enzyme (ACE) inhibitors block formation of a hormone that causes blood vessels to narrow. Their side effects include a dry, hacking cough that won't go away, skin rash and loss of taste. Calcium Channel Blockers (CCBs) keep calcium from entering the heart muscle and blood vessel cells. Their side effects include constipation, dizziness, headache, palpitations, and swollen ankles. Unfortunately, in many cases more than one class of medications is used so the chance of experiencing several side effects increases significantly. Therefore, the modern medicine can reduce the high blood pressure but we have seen the dangers of drugs treatment with significant side effects.

Nevertheless, traditional medicine are also very effective in reducing high blood pressure and in controlling hypertension, even though the medicines are products of natural herbs. The treatment is based on drugs that can restore the balance of nervous and circulatory systems and reduce blood pressure. The medicines help to reduce blood pressure and restore good flow of blood circulation and better movement of the wind. These medicines do not aggravate other humors. *Agar* 15 and 35, *kobyi* 7 and 13, *Khragsman* 11, are some of the drugs used for the treatment of Hypertension in the BTM.

Therefore, this paper attempts to study the effectiveness of BTM in controlling hypertension and to examine its side effects. As of now, not much research has been carried out on the effectiveness of BTM on hypertension. Therefore, this

study will provide some empirical evidence on the effect of BTM on hypertension.

Aims

- To study the efficacy of Traditional medicine on hypertension.

Objectives

- To study the life style of hypertension patients in Bhutan.
- To estimate how many Bhutanese people are visiting Traditional hospital
- To study whether hypertension is among the top ten diseases in Bhutan.
- To determine whether Traditional medicine leaves side effect on hypertension.
- To determine the level of trust and/or satisfaction of Bhutanese people on Traditional medicine

Methods

This research was conducted in Traditional Medicine Hospital. The purposeful sampling has been adopted to include 20hypertension patients (Males: 10, Females: 10) equally distributed among different age groups. The age ranging from 20-80 for both male and femalehasbeen included for sampling. Data collection was carried out byusingself-administered questionnaires. The self-administered questionnaire has distributed to both Traditional and modern medicine physicians.

The questionnaire wasdistributed to Hypertension patients those who could read and write and the structured interview have been conducted for those who can't read and write. The necessary documentary sources and record of hypertension

patients referred treated and death has been reviewed from both Traditional Medicine Hospital and Jigme Dorji Wangchuk National Referral Hospital.

Ethical consideration.

The participants were selected randomly, seeking ‘informed consent’ as the most important step. The overall purpose of the study as well as any possible risks and benefits of the research was clearly explained to them. Their participation was voluntary and participants were given the right and freedom to withdraw from the study at any time at their own will. The Research participants were not subjected to harm in any way during the study, instead respect was shown for the dignity of their participation. Protection and privacy of research participants and adequate level of confidentiality of the research data was ensured. Anonymity of individuals and organization’s participating in the research was ensured and is of paramount importance. The information in relation to the research was dealt with honesty and transparency. The use of offensive, discriminatory, or unacceptable language in questionnaire and interview were avoided. No other people had access to the research documents besides the researcher and the individual research participants. All research documents, consisting mainly of questionnaires and process notes was kept confidential upon the completion of the research.

Data analysis

Quantitative data was analyzed by using computer software Microsoft excel and Microsoft worksheet.

Results and Findings of the study

20 hypertension patients were enumerated (Males: 10, Females: 10) equally distributed among different age groups as shown in figure 1.

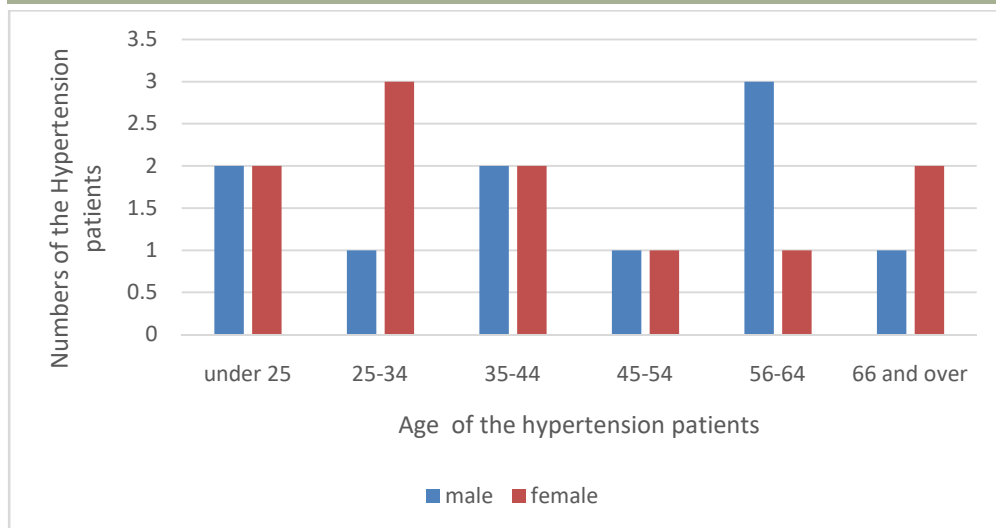


Figure 1: Age distribution of respondents of the Hypertension patients.

Diagnosis of Hypertension.

When asked patients where their hypertension was diagnosed and how they have come to know that they have hypertension, 50 % of them said that they have been diagnosed in modern medicine and 25 % from Traditional Hospital, 15% by their own and 10 % of them by their family, relatives and friends. People have to know whether their blood pressure is high, low or normal and check their blood pressure every 2-3 weeks. Depending on the severity of the patients, blood pressure should be checked more frequently.

Methods used by Drungtsho's in diagnosing Blood pressure.

In modern Hospitals Blood pressure is most often measured with a device known as a sphygmomanometer, which consists of a stethoscope, arm cuff, dial, pump, and valve. In BTM Blood pressure is measured through sphygmomanometer, pulse reading, and symptoms of the diseases, urine analyzing and appearance of the patients. One of the Drungtshos said that "Blood pressure may increase or

decrease, depending on our age, heartcondition, emotions, activity, and the medications that we take. One high reading does not mean we have high blood pressure. It is necessary to measure blood pressure at different times, while we are resting comfortably for at least five minutes. To make the diagnosis of hypertension, at least three readings that are elevated are usually required”. In Traditional medicine hospital most of the Drungtshos are using sphygmomanometer to measure the blood pressure because they claim that it gives accurate reading and is considered to be a convenient and easy method to use. Pulse reading doesn’t give an accurate reading for blood pressure. Some of the Drungtshos said that by reading the pulse they can diagnose hypertension but not the accurate number since the pulse gets disturbed by diet and behavior, but by using sphygmomanometer they are able to give an accurate reading of the Blood pressure”.

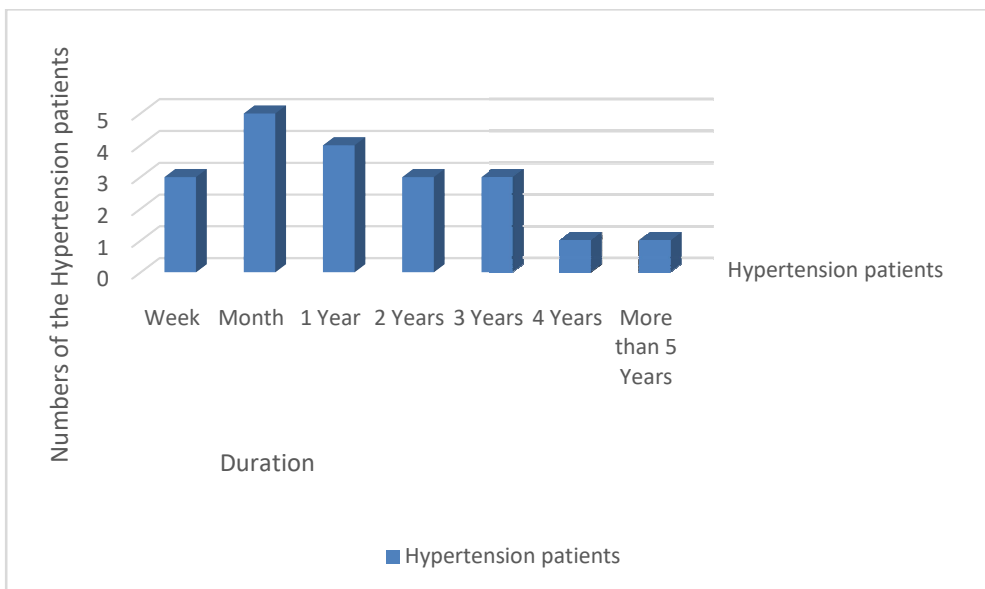


Figure 2: Duration that patients have been suffering from Hypertension.

The time span of the patients suffering from hypertension ranges from a week to more than five years. Of the total, 12.5 % of the patients have been suffering from hypertension were new cases that were recently reported in a week. In a month there are 22.5%, in a year 17.5 %, in two-three years there are 12.5%, in four to more than five years there are 5 % respectively as shown in figure 2. When some of the Drungtshos were asked on how many hypertension patients are visiting their chamber, most of them said 5-10 patients in a day which means 35% new cases of hypertension patients are seen in every week. In this case, all the Drungtshos reported that Bhutanese people have the habits of taking more salt and not abiding on the proper behavior advice by physicians. Therefore, health campaigns and advocacy on hypertension is required to be conducted frequently and the patients also need to abide strictly on the advice given by physicians.

The health problems associated with Hypertension diseases.

Patients were asked their experience on the health problem as a result of hypertension. Some of the patients said that the health problem associated with hypertension diseases are headache, dizziness, breathing problem, anxiety and some said they haven't experience any health problem associated with hypertension diseases. Most of the Drungtshos said that the health problems that is associated with High blood pressure in BTM are heart diseases, diabetes, wind disorders, kidney failure, neural disorders, migraine, stroke, paralysis and anxiety.

According to literature, high blood pressure puts extra strain on the heart and blood vessels. This can cause them to become weaker or damaged. The higher the blood pressure, higher risk of serious health problems in the future. High blood pressure can affect our body in a number of ways, high blood pressure can cause

heart attacks, strokes, kidney disease, peripheral arterial disease, which can affect our legs. If we have other health conditions, such as diabetes or high cholesterol, this increases our risk of health problems even more. Therefore, it is significantly important to lower our blood pressure if it is high.

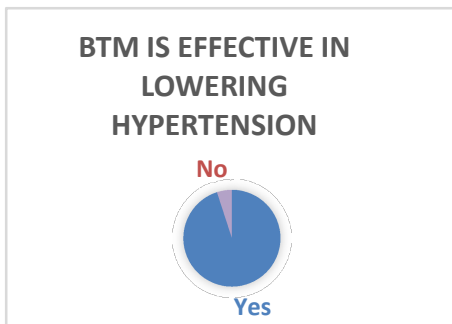


Figure 3a: Effectiveness of BTM in lowering Hypertension

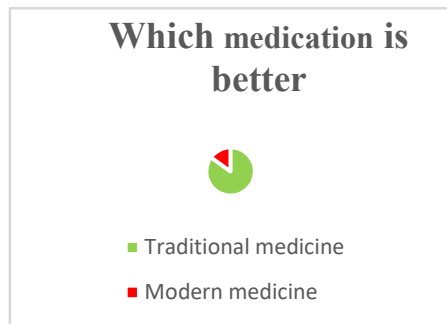


Figure 3 b: Comparison between BTM and modern medicine in the treatment of Hypertension

When a question was asked to 20 hypertension patients about the effectiveness of BTM, 95% said that it is very effective in controlling and lowering their hypertension, while 5% said that it is not effective in lowering their hypertension (As shown in figure 3 a). One of the patients said “BTM is very effective mainly because the medicine is purely the product of herbs and also the teaching of traditional medicine is Buddhism teaching as it was preached by Lord Buddha and moreover I am a Buddhist practitioner. I have great faith and devotion in traditional medicine”. The hypertension medicine is not only one herb as it contains several herbs and each herb has significant effects which accumulate to become effective in lowering high blood pressure.

As shown in figure 3 b: 90% of hypertensive patients said that BTM medication is better than modern medicine. The main reason for the betterment of BTM medication is that many Bhutanese both of the old and new generations trust in

traditional medicine treatment and come up for the service as they feel natural treatment is better (the human as part of nature should serve nature by our self) because they know about side effects of modern medicines that may accumulate in the body. Modern medicine is effective because it contains more chemicals that cure diseases quickly but this fast and strong effectiveness has more reactions and can cause problems in our body.

Does Bhutanese traditional medicine has side effects?

The question has been distributed to 20 hypertension patients and all the respondents' claim that Bhutanese traditional medicine doesn't have any side effects. Most of patients said that they have received medication form allopathy medicine for their hypertension. It helps to lower their hypertension but only for a short duration and again it gets increased even though they are controlling their dietary behaviors that effect hypertension and has many side effects like frequent urination; erectile dysfunction; weakness, leg cramps, or fatigue; and, gout, constipation, dizziness, headache, palpitations, and swollen ankles.

The in-depth interviews were conducted with 5 Drungtshos and most of them said that Traditional medicine has side effects, but very little compared to modern medicine. The main reason for little side effect is because the ingredient of Traditional medicine use only natural herbal product and effects of the medicine is also less compared to modern medicine because modern medicine contains more chemical products. The side effects of traditional medicine depend upon the herbal remedy, the dosage, and any pharmaceutical medications taken by the patient. Any substance ingested into the body can cause side effects. Even food isn't entirely benign, as anyone with lactose intolerance can attest. Everyone's body is different, and some people are more sensitive to herbal

medicine. Herbs used to treat anxiety, depression and insomnia may cause excessive daytime sleepiness in certain individuals.

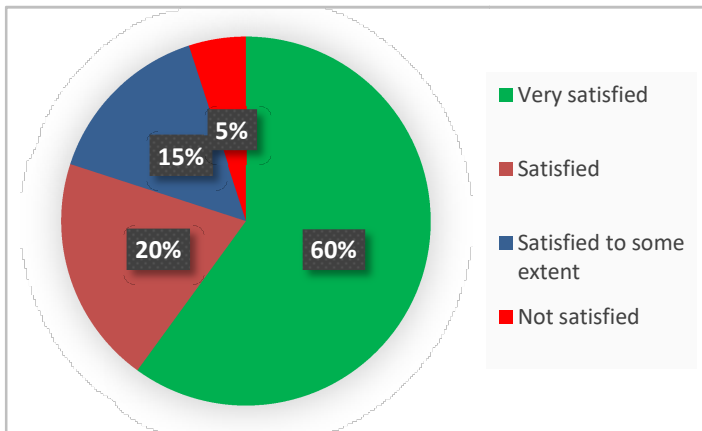


Figure 4: Patient's satisfaction on the treatment received from Bhutanese traditional medicine for hypertension.

The data in Figure 6 indicates that the hypertension patients are happy and satisfied with the treatment that they received from BTM for their hypertension. This statement is consistent with the findings of patients' perception that traditional medicine is very effective in controlling and lowering their high blood pressure in normal levels.

Challenges faced by Drungsho's in treating hypertension.

Most of the Drungshos said that shortages of hypertension medicine are the biggest challenges faced by all the Traditional medicine units. Whole activities depend on the medicinal plants and any mismanagement can cause collapse of the entire fabrics of the BTM system. This will put pressure on the medicinal plants and their environment if proper management plans are not laid down. The rising herbal industries including incense manufacturers and the illegal networks of herbal traders already adds to shortages of BTM. The balancing act in these regard has been very challenging even at the current scenario (Wangchuk & Tobgy, 2015).

Majority of the Drungtsho ssaid “Patients are not following the diet and behavior we advise”.They alwaysadvice their hypertension patients about the diet restrictions that need to be followed. Patients who have been taking allopathic medicine for long duration are also difficult to treat, this is because the effect of modern medicine is very strong and it contains strong chemical product which the effect of herbal medicine cannot control and the effectivenessof herbal medicine becomes less.

Confidence of Drungtshos in treating hypertension.

The question has been asked to Drungtshos about the confidence that they have in treating hypertension. Some of the Drungtshos are very confident in treating hypertension because the medicine is very effective in lowering hypertension. One of the Drungtshos said that ‘For some patients if medication is not effective then there are *Serkhap* and *Num-tshug* therapy as an alternative. Some of the Drungtshos are not confident because they said that medicine is effective but the patients are not taking medicine for long duration and they are also not abiding on the diet and the behavior that they have been advised on.

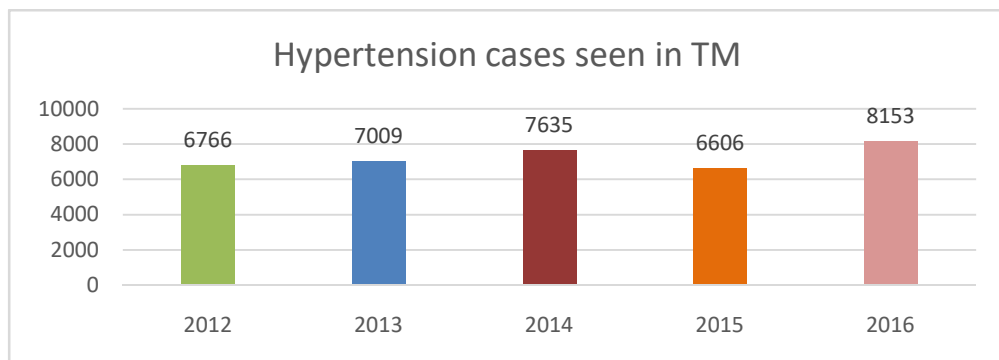


Figure 5: Number of Hypertension cases seen in Traditional medicine units in Bhutan

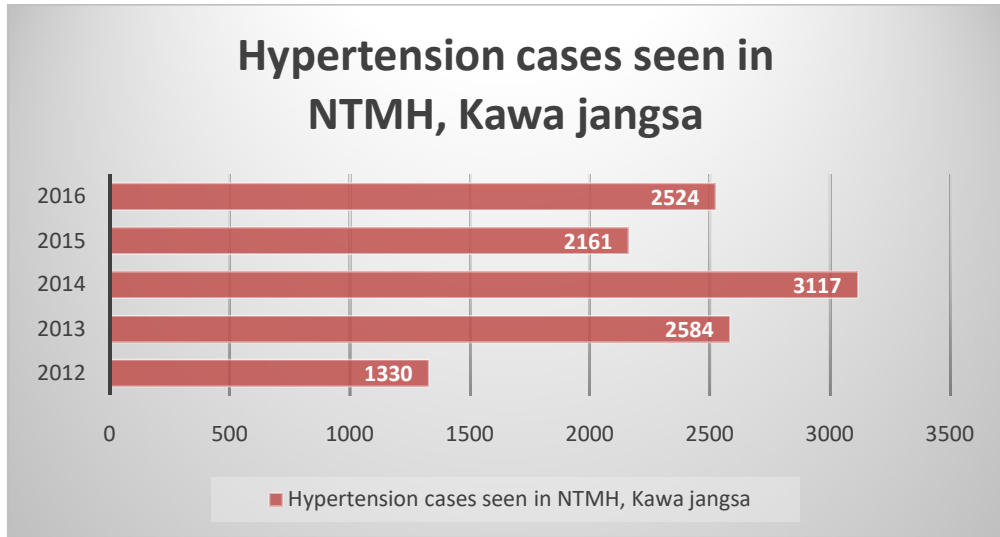


Figure 6: Hypertension cases seen in National traditional medicine Hospital, Kawa jangsa.

Medical records at NTMH administration shows that hypertension cases has been increasing from 2012 to 2016 in Traditional medicine units in Bhutan. This indicate that the BTM service has developed and the medication and treatment are very effective, especially for hypertension (see figure 5).

Medical record section at the NTMH also shows that the hypertension cases has been increasing in NTMH from 2012 to 2016. In NTMH there are more than 1500 hypertension cases are seen every year, and 2014 has been recorded as the highest number of hypertension cases with 3117 hypertension patients (see figure 6).

Every year hypertension cases is always recorded as top-ten diseases in traditional medicine units in Bhutan. The high ranking position provides strong evidence that the hypertension patients visiting traditional medicine units are increasing year by year which indicates that BTM is getting more effective in curing hypertension (see Table 1).

Table 1: The position of hypertension cases in the top ten diseases identified by BTM each year.

Year	Disease	Grand total	Top 10 ranking
2012	Hypertension	6766	7
2013	Hypertension	7009	6
2014	Hypertension	7635	5
2015	Hypertension	6606	7
2016	Hypertension	8153	4

Conclusion

The results and findings of the study shows that the BTM is significantly effective in controlling and lowering hypertension. Yearly the number of Hypertensive patients availing the service of BTM are increasing. Every year more than 6000 patients are visiting Traditional medicine units around the country and more than 1500 patients are visiting NTMH. BTM is purely the product of natural herbs and it has direct effect on the diseases that the traditional medicinal services is availed by most people. Therefore, overall data indicates that the medication and treatment of BTM is very effective in lowering hypertension.

As of now most of the people believe that traditional medicines are herbal and it does not has any side-effect. Therefore, the findings of the study shows that BTM has side effects but very less compared to modern medicine. For hypertension patients they should take traditional medicine for more than 2 years until their blood pressure reach to normal reading.

Physician are always advising patients about the restriction of diets especially taking too much salt and other foods which will effects their hypertension to rise

but the patients are not abiding on the advises made. Therefore, the patients need to learn and follow advises made which will help lower their hypertension.

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