

## **A need assessment of Sowa Rigpa Curriculum of the Explanatory Tantra (*bShed-rgyud*)**

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### **Executive summary**

**Introduction:** The Traditional Medicine (TM) consists of four major Tantras (*rTsa-rGyud*, *bShed-rGyud*, *phyema-rGyud* and *sMan-ngagrGyud*). These constitute the main curriculum of the institute, which require minimum of three years for diploma and five years for Bachelor degree to complete the course. This research assesses the need to revise the curriculum of the second Tantra by collecting the views of the trainees of the Faculty of Traditional Medicine.

**Methods:** The study made use of a Cross Sectional design using questionnaires to assess the existing curriculum of *SowaRigpa*. It was carried out at the Faculty of Traditional Medicine. Quantitative data were collected through the use of structured questionnaires designed for trainees and master's student as to collect views covering contents of textbook, types of text book, memorization topics and its relevance. Data gathered was analyzed using Microsoft Excel worksheet.

**Results:** Of the total 34 participants, 31 participants had responded accounting response rate of 91.17%. Among them, 54.8% are pursuing Bachelor Degree in Traditional Medicine, 32.25% Diploma in TM and 12.9% Master's Degree in TM. The findings of the study showed that there is a need to update the contents (module) of the explanatory Tantra although it was generally rated good. The present study showed need of transition in teaching methods with the significant numbers of respondents showing positive responses towards modern pedagogy. The study also depicted, a need of diagrammatic representations, modern human anatomy and physiology along with the traditional one. Besides, a need of study tours and practical sessions are strongly felt with an average of 87.75% to provide a need based knowledge. Hence, there is a need to focus on

development of the curriculum and increase the frequency of the tours and practical sessions.

## **Background**

The health system in Bhutan broadly comprises of two forms of medicines namely allopathic and traditional medicine (TM) providing health services to the citizens. Besides active development of the allopathic medicines, TM is also gaining popularity through various fields such as institution, pharmaceutical unit and hospitals. After the establishment of the TM in 1967 under the Royal command, National Institute of TM was inaugurated in 1988 as a main training center of the Physicians (Wangchuk, 2008). It was later re-named and became as the Faculty of the Traditional Medicine (FoTM) in 2013 under Khesar Gyalpo University of Medical Sciences of Bhutan. (Department of Traditional Medicine Service, 2016). Presently, there are 85 trainees pursuing diploma in TM, Pharmacy and Bachelor degree in TM. Recently, the masters' degree in TM was offered as per the curriculum developed by the institute.

*Sowa Rigpa* curriculum at FoTM comprises of the four Tantras and other supplementary texts. The courses for diploma were first drafted by Drungtsho Pem Dorji and Drungtsho Sherub Jorden and later curriculum for degree was developed by Thugten Lekpai Lodroe (Dorji, 2017). In addition to that, the students require studying *shel-gong /Shel-threng, Zin-tig, sMenhgi-phen-nueJor-deyand Tsi* (astrology). In total, the curriculum consists of 156 chapters (*Lieu*) besides other supplementary courses such as Academic Skills, Analytical Skills, Information Technology, Research Methodology and Hospital Management. Except for those supplementary modules, the medium of instruction is in *Dzongkha* and *choekye* (classical Tibetan language).

Among four Tantras, the root Tantra depicts an overview essence of the *Sowa Rigpa*. In its six chapters, it gives the clear outlines of the basic principles of health and disease, diagnosis and therapeutic approaches. The explanatory Tantra consists of eleven main section or branches (*Nye*) with thirty one chapters which addresses the formation of the human body and its relation to five worldly elements (*Jungwanga*)(*TsawaDho*); descriptions of the anatomical structures, physiological characteristics (*Grub-pa Lus*); explanation on causes and condition, location, symptoms, and classifications of the disorders (*Phel-grip ned*); dietary and behavioral principles (*Bya-basPyod-lam and Tsho-wazas*); medicinal substances (*sByor-wa-sman*); medicinal instruments (*Cha-byedChed*), distinctive means of diagnosis (*nGos-bzungbrtag-pa*); therapeutic approaches (*gSo-byedthabs*) and ethics of the physicians (*bJajaedsMenpai Nye*) (Tsenam, n.d).

The Oral Instruction Tantra (*sMan-ngagrGyud*) consists of fifteen sections (*Kab*) and ninety two chapters (*Lus*) that deal with the practical applications of the theoretical principles. It starts with the diagnosis and treatment of three humors disorders (*Nyes-gsumgSo-ba*), abdominal disorders (*Khong-nedgSo-ba*), febrile disorders (*Tsha-bagSo-ba*), disorders of upper part of the body (*lus-todgSo-ba*), disorders of vital and visceral organs (*Don-sNodgSo –ba*), genital disorder (*gSang-nedgSo-ba*), unclassified disorders (*Thor- nedgSo-ba*), disorders characterized by development of the lesions (*lhan-sKyesrMa*), pediatric disorders (*Byes-pa gSo-ba*), gynecological disorders (*Mo- nedgSo-ba*), disorders caused by evil spirits (*gDon- nedggSo-ba*), wounds and injuries (*mTshon-rmogSo-ba*), toxicosis (*Dug-nedgSo-ba*), geriatric disorders (*rGes-pa gSo-ba*) and infertility (*Ro-tsagSo-ba*) (Paljor, 2011).

The subsequent Tantra includes the four main sections (*DhoZhi*). These are pulse and urine analysis (*rTsa-chuDho*), compounding medicines and formularies (*Zhi-*

byedsmangiDho), administration of the evacuative therapies such as purgation, emesis, nasal medication and enema (sByong-byedlaskiDho) and mild and coarse external therapies such as venesection, moxibustion, hot compression, medicinal bath therapy and massage (*Jam-rtsubChedkiDho*) (Tshering, 2009). Although the curriculum has been reviewed several times, many of the trainees seemed to be considering that some contents are still archaic in relation to modern times and inapplicable to today's context. Moreover, assessing the needs of specifying of text books, teaching learning methods and materials are also felt to have content-rich curriculum. Thus, a thorough research is needed to review the curriculum that is relevant and realistic in context to modern era. Significantly, this study aims to verify the curriculum of the Explanatory Tantra (*bShedrGyud*) out of four major treatises to incorporate students' view on present curriculum. Moreover it focuses on the ways of updating as per the perspective of the students.

### **Research question and Objectives**

Is there a need to update the existing *gSo-ba Rig-pa* curriculum of the Explanatory Tantras (*bShedrGyud*)? If yes, how should we go about it?

#### **a. General objectives**

To assess present curriculum of the Explanatory Tantra (*bShedrGyud*) and depict the ways of updating.

#### **b. Specific objectives**

- To assess the teaching learning methods and content materials of the curriculum
- To assess or review the chapters included for memorization in Explanatory Tantra

- To assess the need for educational study tours and practical session of the present curriculum.
- To identify the relevance of all the chapters included in the curriculum and inclusion of modern anatomical structures along with the one in traditional context.

## **Methodology**

### **a. Study design and setting**

The study was a Cross sectional Study design using questionnaires to assess the existing curriculum of *Sowa Rigpa*. The study was carried out at FoTM, KawaJangsa which is the center of information for both the participants and the investigator since it is easily accessible to the information as the study requires participants from the institute itself. Moreover, the resource and the time consumptions were less since the study was carried out within the compound of FoTM.

### **b. Sample size and Study tools**

A total of 34 participants (50% of trainees out of total strength) were selected including the students from second year till the fifth year and master's students of the faculty. In this study, the self-administered closed questions were used as the main instrument to collect the data designed in English. The content and face validity of the questionnaires were evaluated by the tutor.

### **c. Sampling techniques**

In this study, the Stratified Random Sampling techniques was used to recruit the trainees so that every participant has equal opportunity of getting selected. Purposive sampling was used to recruit master's students in the study. A total of four strata were developed from which 30 participants from trainees those who have completed the Explanatory Tantra and four master's candidates were recruited for the study.

**d. Inclusion criteria and Exclusion Criteria:**

In this study, both male and female students and those who are currently in the Faculty of Traditional medicine were included as the participants. The study excluded first year students since they have not completed studying the Explanatory Tantra. Pharmacy students were also excluded since they study the Tantra selectively. Additionally, those who were unwilling to participate and who were on leave during the collection of data were excluded from the study.

**e. Study variables**

The dependent variable was the Updating of Explanatory Tantara (bShed-rGyud) which was assessed by asking the closed questions. The following were the independent variables used to determine the dependent variable; Teaching learning materials; Medium of language and text specification; Memorization topics of the explanatory Tantra; Educational Tours and practical session; Eleven major branches (Nye chuchi); Inclusion of the modern human anatomy and physiology.

**f. Methods of Data collection and Data Analysis**

Data was collected through the use of self-administered structured questionnaires to collect quantitative data. It consisted of views covering contents of curriculum of the Explanatory Tantra, medium of instruction, types of text book, memorization topics and ways of teaching learning materials. The quantitative data gathered were coded and analyzed using Microsoft Excel Worksheet. Graphs and charts were used to make comparisons of the results.

**g. Ethical consideration**

Before carrying out the research, an ethical approval was sought from the individual members participating in the study. They were informed well on the study and self-administered questions were distributed and made to fill-up as per their convenience. They were allowed to withdraw from the study as and

when they wish. All the participants were given equal time to fill-up the questionnaires. The participant's anonymity was maintained and any information collected from the participants were kept confidential.

## Results

### a. Demographic information

A total of 34 participants were recruited, out of which 31 participants had responded accounting to response percent at 91.17%. Among them 54.8% were pursuing Bachelor Degree in TM, 32.25% Diploma in TM and 12.9% Master's Degree in TM (Figure 1).

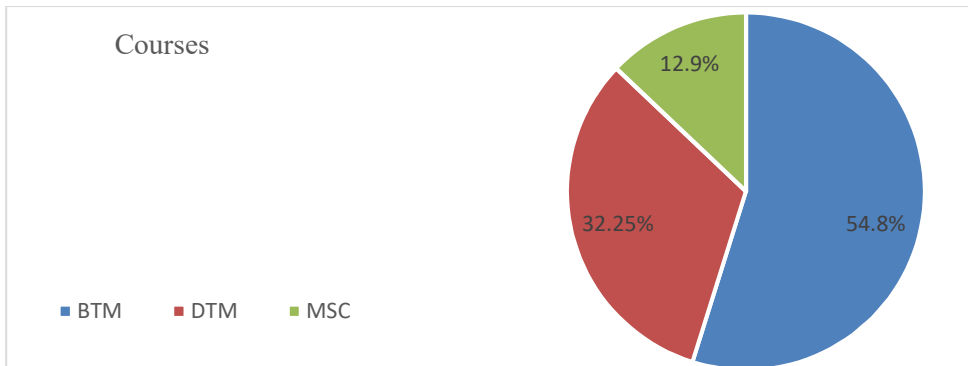


Figure No. 1: Showing courses of respondents.

### b. Opinions on Teaching learning methods and materials

When asked to rate on their opinion on traditional and modern method of teaching, participants showed various levels of preference as shown in Figure 2. The results showed that Traditional method of teaching is ineffective as compared to modern pedagogy with a difference of 38% between them. The need of diagrammatic representations are strongly felt where 92.9% of the respondents agreed with the statement. The result also showed that there is a strong need of modern human anatomy and physiology in the curriculum especially during the study of an Explanatory Tantra.

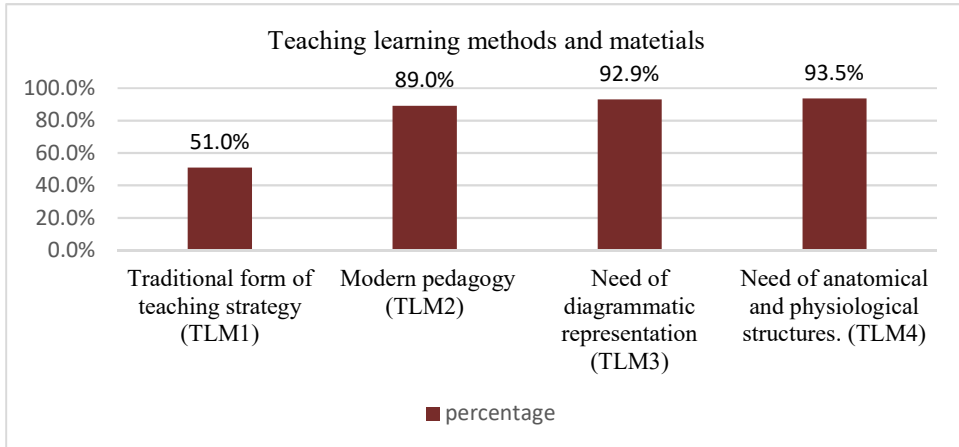


Figure No. 2: Teaching learning methods and materials required.

**c. Participants’ preference on medium of language and Sowa Rigpa textbook**

Although, there is almost a good numbers of respondents (59.4%) who are comfortable with the classical Tibetan language, 75.5% of the respondents showed their preference towards *Dzongkha* (figure No.3). Further, 81.9% of the respondents strongly felt the need of translated version of the Sowa Rigpa in *Dzongkha*. On top of that, it indicated that 86.5% of the respondents are preferring DrangsongZhelung to Ber-ngoem text as shown in figure no.3 while studying

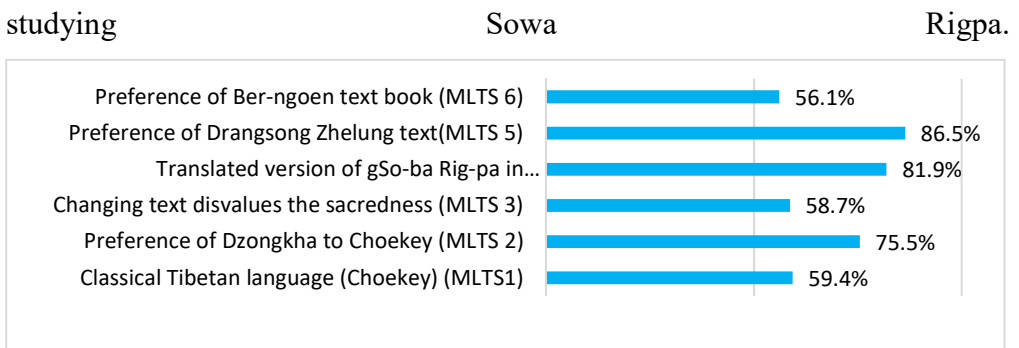


Figure No. 3: Mode of language and text specification.



#### d. Importance and appropriateness of Memorization contents of the Explanatory Tantra

The study also attempted to find out the appropriateness and necessity of the memorization in the Explanatory Tantra. Generally, this study found out that the memorization contents of the present curriculum is appropriate and important with an average responses of 81.4%. Further, few of them recommended omission of the memorization on medicinal substances and inclusion of modern medicine terminology.

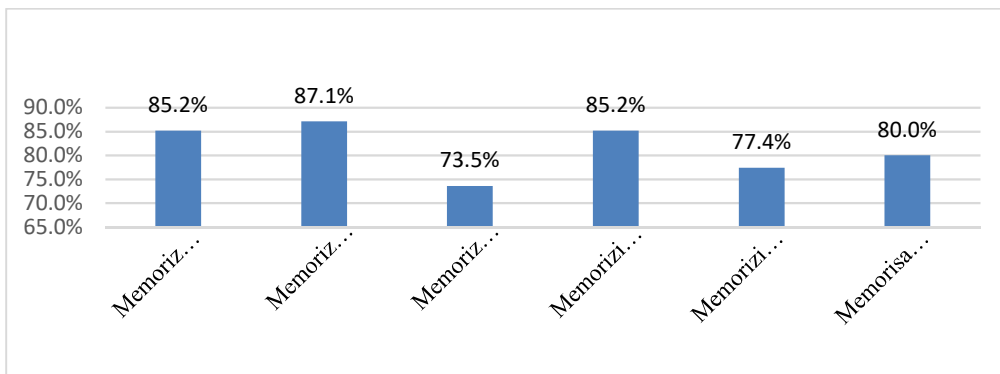


Figure No. 4: Memorization contents of the Explanatory Tantra.

#### e. Study field trips/ educational tour and practical as a part of Explanatory Tantra (STEP).

The findings from the study indicated there is a need of more than two terms of medicinal identification tours with 78.7% responses (Figure no. 5). The need of the tour is also supported by respondents' statement, "There should be more than two terms with alternative places such as in Bumthang and at Singye Dzong.". Additionally, when enquired about the need of practical session, it is strongly felt with 92.3% responses. In general, the study showed the need of study tours and practical sessions with an average of 87.75% while learning the explanatory Tantra.

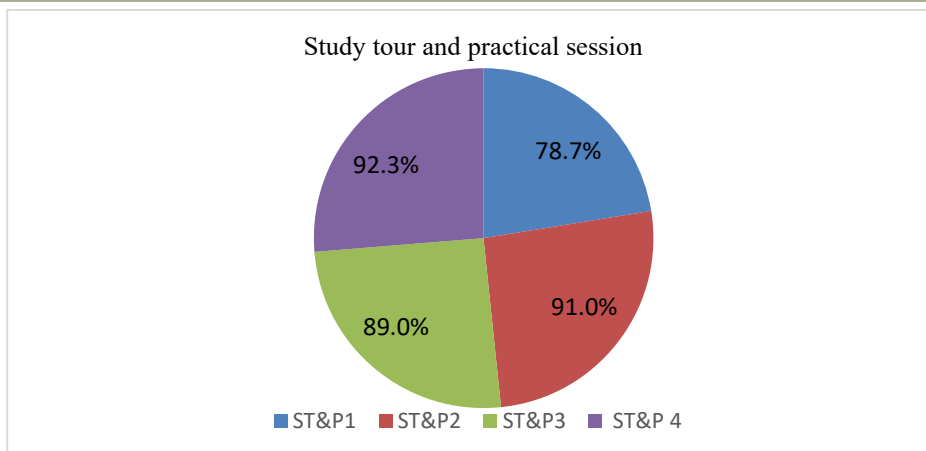


Figure No. 5: Medicinal identification tour (ST&P1); educational tour at sMenjongSorig Pharmaceutical unit (ST&P2); Study tour at allopathic hospitals (ST&P3) & practical sessions while studying the ET (ST&P 4)

#### f. Content relevance of the Explanatory Tantra

The study attempted to find out the content relevance of the Explanatory Tantra based on the following Modules as per the curriculum.

##### 1. *Grub-pa Lus* (anatomy and physiology)

The Module was rated 'Excellent' by 19.4%, 'Good' by 67.7% and 'Poor' by 12.9% as shown in the Fig. No. 6 which shows that the module is generally moderate. When asked about the appropriate balance between theory and practical, 48.4% responded 'No' which indicated there is a lack of providing balance between theory and practical session (Figure no. 7). Further, when enquired about the need to update this module, 93.5% (n=29) responded 'Yes' with 6.5% remaining uncertain of it. The study further attempted to find out the need of modern human anatomy module along with Sowa RigPa to which 100% agreed, depicting the ways to update the curriculum. Additionally, when asked about any other contents that need to be updated, participants recommended

'Description of human body with similes should be excluded from the curriculum. They also stated, collaborative study with modern medicine would be an asset to learn effectively.

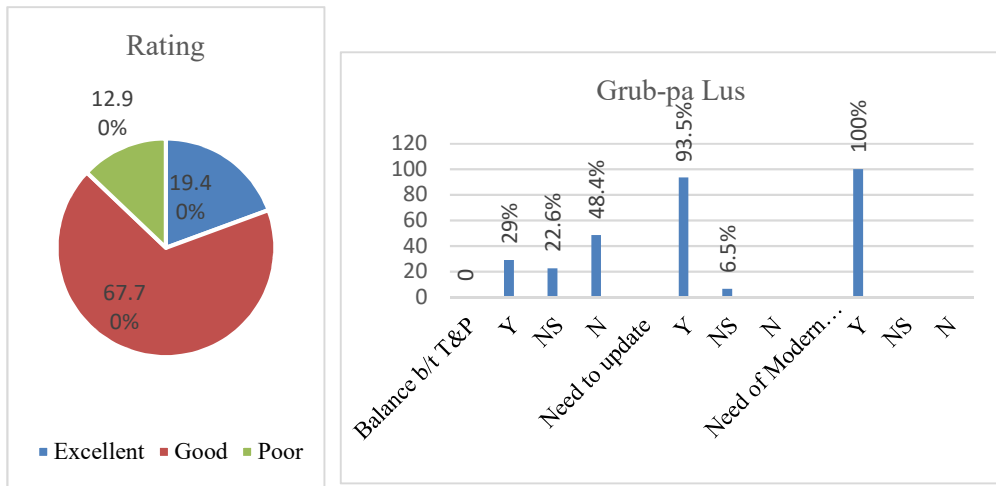


Figure No.6: Rating of the module  
Figure No.7: Percentages of responses on *Grub-pa Lus* module.

(Y-Yes; NS-Not Sure; N-No)

## 2. *Phel-grip ned* (Origin of diseases)

In this module, 32.3% rated 'Excellent', 61.3% rated 'Good' and 6.5% rated 'Poor' as reflected in figure no. 8. The study showed higher balance between theory and practical with 54.8% opting 'Yes' as compared to negative responses of 9.0%. The respondents also stated there is a need to do practical in order to diagnose the diseases. When asked about updating of this module, there is a significant need with 80.6% who resorted to update. It also indicated that there is a need of modern pathology (90.3%) to relate with each other.

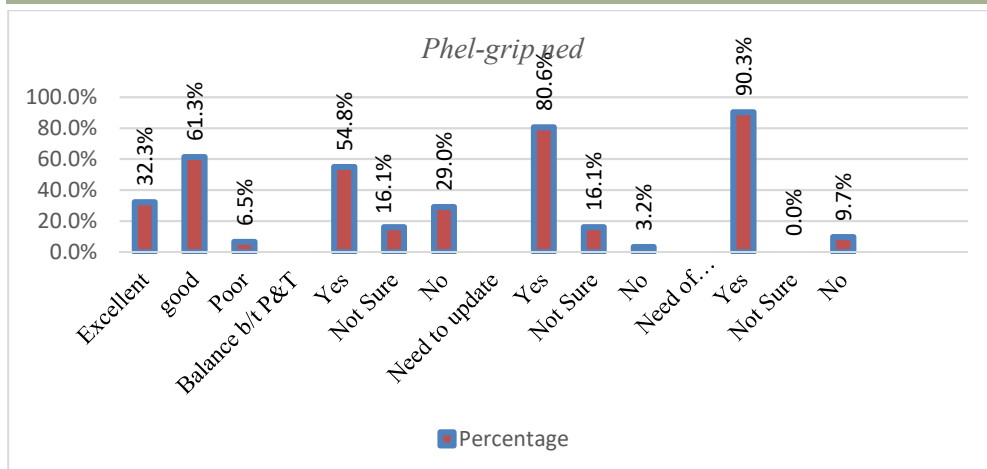


Figure No. 8: Showing the no. of Participants and Percentages of the respondents on *Phel-grip ned* Module.

### 3. **Bya-basPyod-lam and Tsho-wazas (Behavioral Studies and Dietetics)**

The module was generally rated 'Good' by 67.7% indicating moderate. When asked about a need to update, 87.1% (n=27) resorted 'Yes', indicating there is a strong need to update the module with less objection response to this statement. It was further supported whereby respondents stated that the module is mainly based on Tibetan context and it must be developed in Bhutanese context.

### 4. **sByor-wa-sman (Pharmacology)**

The module was generally rated good with 54.8% and poor by 29% of the respondents. When asked about the balance between the theory and practical, comparatively, higher number of respondents (41.9%) were not sure about it. The study also highlighted the need to update this module wherein 87.1% resorted to agree with minimal responses of 12.9% being uncertain about the need of updating. This was further supported in which respondents had recommended that there is a need of research based evidence to prove the efficacy of the medicines.

### 5. nGos-bzungbrtag-pa &Cha- byedChed(Diagnosis of Diseases and medical instrument)

The module was fairly rated as 'Good' by 77.4% (n=24) of the total participants. Further, when asked about the need to update, 77.4% responded 'Y' indicating that there is a need to update with 19.4% who were uncertain about the need to update. Moreover, the respondents recommended omission of the chapter consisting of the medical instrument or it can simply be given an oral transmission. The study also showed that this module was felt important in profession as 80.6% of the respondents responded 'Y' depicted in the figure no. 9 mentioned below.

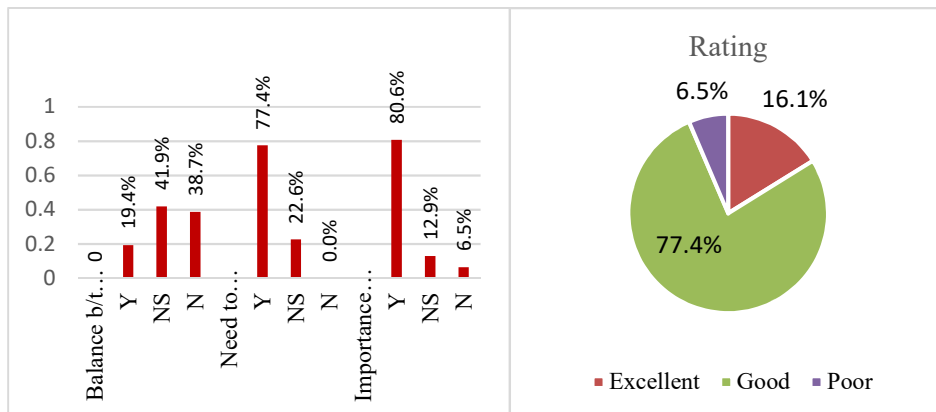


Figure No. 9&10: Graphical display on nGos-bzungbrtag-pa &Cha- byedChed(Diagnosis of Diseases and medical instruments) module.

### 6. gSo- byedthabs&bJajaedsMenpai Nye(Principles of treatment and Clinical Ethics)

This module was comparatively rated as 'Good' by 71% of the responded. The finding of the study indicated uncertainty of the appropriate balance between the theory and practical session with maximum response of 45%. This study also showed 51.6% were uncertain about updating even though 41.9% claimed to update the module with 6.5% who disagree with the statement.

## **Conclusion and discussions**

The findings of the present study on the Explanatory Tantra showed that the modern form of teaching pedagogy is more effective than the traditional form of teaching method which is in line with the study done by Bobek and Tversky, (2016) which stated that many topics in technical subjects are difficult to understand simply by reading the contents. The study also highlighted the need of diagrammatic representations and inclusion of modern human anatomy and physiology in the curriculum especially during the study of an Explanatory Tantra.

This study also noted that the students are least comfortable with classical Tibetan language and their preferences are given to Dzongkha. Findings showed that there is a need of translated version of the text in Dzongkha.

While learning TM, the unique way is to memorize the important contents of the text. Generally, this study found out that the memorization contents of the present curriculum is good and important which is consistent to the study done by Phuntsho, (2016). Nevertheless, few opposing ideas are expressed which stated “Omission of the memorization on medicinal substances and inclusion of modern medicine terminology”.

Regarding the study tours and practical session, this study indicated positive outcome. The findings stated the need of more than two terms of study tours with alternative places. In addition to that, the study had also assessed the content relevance of the Exploratory Tantra. In this section, the modules are generally rated as ‘Good’. The study also found that there is a need to update almost all the modules. Many of the modules are found lacking appropriate balance between the theory and practical components. Additionally, inclusion of such as modern anatomy, physiology and pathology are felt important in the curriculum. On the other hand, despite the consideration of importance of those modules in

profession, students expressed strong feelings for the need of updated curriculum based on modern context since it is essential factor in student academic success and comprehensively content rich curriculum would enhance the performance of the students (Steiner, 2017).

### **Limitations**

The study may not fulfill the general goal as the study could not cover all four Tantras and collect views from those who are currently working in various TM units. Moreover, this study also excluded the lecturers' point of views.

### **Recommendations**

1. The further incorporation of modern sciences and research based components in curriculum are also felt significantly. Hence, there is a need to focus on development of the curriculum.
2. Even though, the students learn effectively by seeing and doing practically, there is limited tours and practical sessions in the Explanatory Tantra. Thus, there is a need of increasing the frequency of the tours and practical sessions.

## References

- Bobek, E., &Tversky, B., (2016). *Creating visual explanation improves learning. Cognitive research: Principles and Implications*, 1, 27.
- Department of Traditional Medicine Service, (2016). *Annual morbidity report for Bhutanese Traditional Medicine Service 2016*
- Dorji, S., (2017). Introduction, development and present status of Traditional Medicine in Bhutan. *Health System and Policy Research*, 4(2).
- Paljor, T., 2<sup>nd</sup>edi. (2011). *The Root Tantra and the Explanatory Tantra*. Dharamsala: Mentse-Tse-Khang.
- Phuntsho, K., (2016). The importance of bLor-zin as a part of learning at FoTM. *sMenjongSorig Journal*, 10, 23.
- Steiner, D., (2017). *Curriculum Research: What we know and where we need to go*. Retrieved on 12<sup>th</sup> March from <https://standardwork.org>
- Tsenam, T. *DrangsongZhelung*. Sithroenmerig publication.
- Tshering, P., (2009). *rGyud Ki Chidoen*. Thimhu: KMT Printing Press.
- Wangchuk, D., (2008). Traditional medicine in Bhutan. *sMen-JongSorig Journal*;1,89-108.