# Socio-Economic Diversity and Inclusion in MBBS Graduates in Nepal

**Dr. Rajendra Kumar Pokhrel**
Associate Professor in Economics Education in TU.
Email: rpokhreldang@gmail.com
DOI:https://doi.org/10.3126/sss.v23i1.51937

## *Abstract*

*The purpose of this research is to investigate caste and ethnic composition of in MBBS graduates in Nepal. The researcher undertook the study of MBBS education provided by two universities TU, KU and their affiliated colleges. In total, eighteen medical colleges offering MBBS were finalized. Specifically, the study was undertaken to fulfill the following objectives: to analyze socio-economic inclusion in MBBS education in Nepal and to examine socio-economic diversity in terms of caste and ethnicity of MBBS students. Secondary data, of four admission cycles (2015-2018) of MBBS students obtained from University Dean's office, were used for the study. Admission to medical school today determines the composition of medical professionals in the future. Caste/ethnic inclusion in medical professionals helps to fully understanding diversity of health problems. Biased medical education affects clinical practice. To address complex and diverse health problems, the medical professionals must become more diverse. The year-wise observation of caste and ethnic inclusion reflects some improvement. Comparatively, 2018 is the most inclusive year in relative term, but disparity still exists. This gets compounded when marginalized communities added on. MBBS education attainment is significantly different among caste and ethnic groups. BCTD is the most represented in MBBS education with 53.2% share, whereas, Dalits are underrepresented ethnic groups with 2.6%. In caste and ethnic inclusion, private medical colleges are better than public ones. Government should provide subsidy to the deserving students from marginalized communities in order to increase their access to medical education. The Government and medical colleges should work to establish inclusive policy that enhance equal opportunities.*

*Key words:* Medical professional, caste, ethnicity, inclusion, diversity

## Introduction

Constitution of Nepal-2015 has guaranteed health and education as fundamental rights of Nepalese citizen. It has established a more inclusive state and expresses the commitment for proportional, inclusive and participatory principles in order to ensure economic equality, and social justice. Education is one of the important factors for economic development of the nation. Inclusion is important so as to include everyone in the system. Admission to medical school today determines the composition of the medical profession in the future. To address health problems of diversity of population, widening participation of MBBS education is important in Nepal. Before indicating how the caste and ethnicity and all social groups can promote equitable participation in MBBS. Quality in medical education is a universal goal (WFME, 2012). Medical education is the responsibility of the government and it should be controlled and regulated by the government itself (WHO, 2018)

Generally, medical education is provided by both the government and private sector. Global trend of booming private sector economy has led middle class to enter the medical field. Medical education is under the full control of the state in China, France, South Africa, Kuwait and Canada. New Zealand has two schools, both of which are government funded. In the United States of America, out of total 131 medical schools, 62 are private which are heavily supported by government research grants and usually are non-profit institutions. In Japan, there are 79 medical schools out of which 29 are private. Malaysia, Thailand, and Philippines have also ventured heavily in privatization of medical education. The United Kingdom and Germany have one private school each out of total of 44 and 36 respectively. Seven medical schools in Greece and eight in Netherlands are fully government funded. Spain has only two private institutions out of total 28. Australia has 19 medical colleges and two of them are private universities. In South America, Chile has a total 60 schools in which 35 of them are private, while in Africa, Nigeria has only two private medical colleges out of total 34 schools. Out of total 32 medical colleges in the Gulf Cooperative Council countries, Yemen has four, the United Arab Emirates (UAE) has three, Bahrain has two. Saudi Arabia, Qatar and Oman have one private medical college each (Shehnaz, 2010). India is leading among SAARC countries in medical education system. At present, there are 479 medical colleges, out of which 227 are Government and 252 are private (MCI, 2019). In Bangladesh, both public and private medical education is controlled by the government. Deficiency of doctors in Pakistan has led to a massive growth of the private medical colleges but government medical colleges are the first priority of the students (Nawabi, Maqsood, & Javed, 2018). Sri Lanka has only one private medical school and many Sri Lankan self-financing students are enrolled in Nepal (Ravishankar, 2011).

Human beings possess certain basic rights, and in order for society to function effectively, members should have equal access to opportunities, and inequalities should be limited (Rawls, 1985). Behaviourism, cognitivism, and constructivism are the theories used in educational practices related to the inclusion of students with educational needs and that inclusive education practices best serve the needs of all

students. Behaviourism is one of the classical theories of learning and also recognized as the oldest psychological model (Nalliah & Idris, 2014). Cognitivism specially focuses on one's thinking, memory, self-reflection, and motivation to learn. Piaget also argued that during developmental stage, the ability and the process of learning is different (Evgeniou & Loizou, 2012). Constructivism focuses on tools that reflect the culture in which students are used to and insights and experiences of learning. Constructivism involves a person understanding the importance of the social dimension during the teaching learning process (Shammari, Faulkner & Forlin, 2019).

Medical education in Nepal started in 1933 with the establishment of Nepal Rajkiya Ayurved Vidyalaya (Banerjee, et al., 2011). Institution of Medicine (IoM) under TU was established in 1972 with the aims to produce MBBS doctors. Production of MBBS doctors was started in Nepal from the year 1978 A.D. by TU under government investment, then KU affiliated MCOMS, Pokhara, established in 1992 A.D. under private investment, Later, MBBS programme is provided by BPKIHS (1993 A.D.) and PAHS (2010 A.D.) in Nepal (Dixit, 2009). It is generally claimed that public sector alone cannot keep pace with the growing demand for education. Private sector emerged with the objective of reducing the role of the government in satisfying people's needs. The common factor around the globe is that private medical colleges are more expensive than public. It is compliment to the government and not the alternative to it (Shehnaz, 2010).

Medical education in Nepal is facing many challenges. It should be made affordable, accessible and reformed on the basis of the basic principle of quality health care and health education (Mathema, et al., 2015).

## Objectives of the Study

General objective of this study is to analyze medical education in Nepal. The specific objectives are as follows:

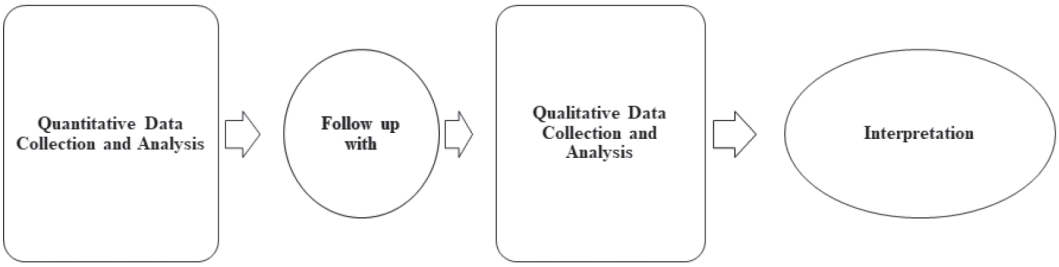
- to analyse socio-economic inclusion in MBBS education in Nepal.
- to examine socio-economic diversity in terms of caste and ethnicity of MBBS students.

## Methodology

The study was a cross-sectional, comparative study with sample size of 6879 students. Mixed research design is followed which integrates quantitative and qualitative information as the study includes economic and social issues.

**Chart 1**

*Mixed Method Design*




The qualitative data help to explain the quantitative results. Quantitative and qualitative data are collected at different times but quantitative data collection is the priority. Qualitative study helps to interpret quantitative results. It is the most popular design in health science and educational research (Creswell, 2014).

To identify caste and ethnic inclusion, secondary data was used obtained from universities Dean's Office (TU, KU). For this purpose, all 20 medical colleges, offering MBBS, were taken by using census method.

The study analyses caste and ethnic inclusion in MBBS Education in Nepal and Study data includes total number of MBBS students during the years 2015 to 2018 admissions cycles due to time and resource constraint.

## Specification of Model

The Binary Logistic Regression Model

The Binary Logistic Regression Model is estimated to examine gender, caste/ethnic geographical composition and disparity of MBBS students with the help of SPSS.

Public/Private= $\beta + \beta_1$ Gender + $\beta_2$ Caste/Ethnicity + $\beta_3$ Geography

Model I Gender: Female (Reference)

Model II Caste/Ethnicity: BCTD (Reference)

Model III Provincial Diversity: Bagmati Province (Reference)

# Results and Discussion

## Caste and Ethnic Composition of MBBS Students in Nepal

In Nepal political and economic power is interlinked with the Hindu caste system. The BCTD were at the top and Sudra were at the bottom of the ritual order. Caste-based discrimination was abolished but its diluted form remains even today.

Inclusion is one of the pillars attaining its goal. This study tries to analyse socio-cultural diversity and discrimination of MBBS student against women, Dalits, Janajatis, Muslims and Terai other castes of the seven provinces. Dalits, Janajatis, the Muslims and Madhesis remain on the margins. The study has examined gender, caste and ethnicity that determine individual and group access to MBBS education, capabilities on socially-defined identity.

Admission to medical school today determines the composition of the medical profession in the future. To address health problems of diversity of population, widening participation of MBBS education is important in Nepal. But the issue that the future medical workforce will perform better or worse as a result of is unknown.

Nepal is a multi-ethnic, multi-religious, multi-cultural, racially diverse country. Constitution of Nepal (2015) established a more inclusive state and expresses the commitment for proportional, inclusive and participatory principles in order to ensure economic equality, and social justice, by eliminating discrimination based on gender, class, caste, region, remoteness, language and religion. This study tries to analyse diversity of MBBS student related to socio-cultural aspects and discrimination against women, Dalits, Janajatis, Muslims and Terai other castes of the seven provinces. Dalits, Janajatis, the Muslims and Madhesis remain on the margins. The study has examined gender, caste and ethnicity that determine individual and group access to MBBS education, capabilities on socially-defined identity. Inclusion is one of the pillars attaining its goal. In Nepal political and economic power was consolidated by interlinking it with the Hindu caste system. The BCTD were at the top and Sudra were at the bottom of the ritual order. Caste-based discrimination was abolished but its diluted form remains even today.

**Table 1**

*Caste/Ethnicity of MBBS Students by University (2015-2018)*

| Caste\ Ethnicity | Universities | | | | Total | |
|---|---|---|---|---|---|---|
| | TU | | KU | | N | % |
| | N | % | N | % | | |
| BCTD | 1830 | 59.4 | 1818 | 48.2 | 3648 | 53.2 |
| Adibasi, Janajati | 497 | 16.1 | 481 | 12.8 | 978 | 14.3 |
| Muslim, Terai OC | 534 | 17.3 | 506 | 13.4 | 1040 | 15.2 |
| Dalit | 103 | 3.3 | 73 | 1.9 | 176 | 2.6 |
| Foreigners | 119 | 3.9 | 892 | 23.7 | 1011 | 14.8 |
| Total | 3085 | 100.0 | 3794 | 100.0 | 6879 | 100.0 |

*Source: Researcher's calculation through SPSS using data presented in Appendix E*

Table 1 presents the inclusion of MBBS students in TU and KU by caste and ethnicity. From the table it is seen that out of total MBBS students of the study period majority are BCTD that is 59.4% in TU and 48.2% in KU. Similarly, adibasi janajati covers 16.1 and 12.8% in TU and KU respectively. Muslim and Terai OC are in second position with 17.3% in TU and 13.4% in KU. Dalit is only 3.3% in TU and 1.9 % in KU. Foreigners and other unidentified castes in TU is 3.9% and 23.7% in KU. Both TU and KU are found to be divorced from caste/ethnic inclusion and it is needed for social balance and quality health care in the future.

**Table 2**

*Caste/Ethnic Composition of MBBS Students in Public/Private (2015-2018)*

| | Nature of Colleges | | | | Total | |
|---|---|---|---|---|---|---|
| | Public | | Private | | | |
| **Caste\Ethnicity** | **N** | **%** | **N** | **%** | **N** | **%** |
| BCTD | 766 | 73.2 | 2882 | 49.6 | 3648 | 53.2 |
| Adibasi, Janajati | 156 | 14.9 | 822 | 14.2 | 978 | 14.3 |
| Muslim, Terai OC | 72 | 6.9 | 968 | 16.7 | 1040 | 15.2 |
| Dalit | 21 | 2.0 | 155 | 2.7 | 176 | 2.6 |
| Foreigners | 32 | 3.1 | 979 | 16.9 | 1011 | 14.8 |
| Total | 1048 | 100.0 | 5831 | 100.0 | 6879 | 100.0 |

*Source: Researcher's calculation through SPSS using data obtained from Universities*

| **Chi-Square Tests** | | | |
|---|---|---|---|
| | Value | df | Asymptotic Signifi (2-sided) |
| Pearson Chi-Square | 198.574[a] | 4 | 0.000 |
| Likelihood Ratio | 241.737 | 4 | 0.000 |
| Linear-by-Linear Association | 170.402 | 1 | 0.000 |
| N of Valid Cases | 6879 | | |

*** Significant at 100% confidence level. a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 22.55.

| **Symmetric Measures** | | | |
|---|---|---|---|
| | | Value | Approx. Significance |
| Nominal by Nominal | Phi | 0.170 | 0.000 |
| | Cramer's V | 0.170 | 0.000 |
| N of Valid Cases | | 6879 | |

*** Significant at 100% confidence level.

The table 2 presents the pattern of MBBS attainment in public and private colleges by caste and ethnicity. Caste and ethnic inclusion presents a disheartening picture. The total MBBS students of the study period from 2015 to 2018 are 6879. Total 1048 MBBS students, nearly 73.2% BCTD are in public colleges and 5831 students 49.6% are in private colleges. Adibasi, Janajati are close behind 14.9, 14.2% in public and private colleges respectively. In public Colleges, Muslim and Terai OC occupy 6.9% and somewhat better with 16.7% in private colleges. Dalits participation is very small with 2% in public and 2.7% in private sector. In total BCTD is in majority with 53.2% among MBBS students and Dalits are in minority with only 2.6%. This reflects the marginal position and the lack of attainment of Dalits. The analysis shows that BCTD are overrepresented in total MBBS students and Dalits are underrepresented. The Chi- Square test indicates that the P-value is less than five percent so, there is 100% confidence level results significant different in caste/ethnic diversity of students in public and private medical colleges.

**Table 3**

*Caste/Ethnic Composition of MBBS Students in Different Years (2015-2018)*

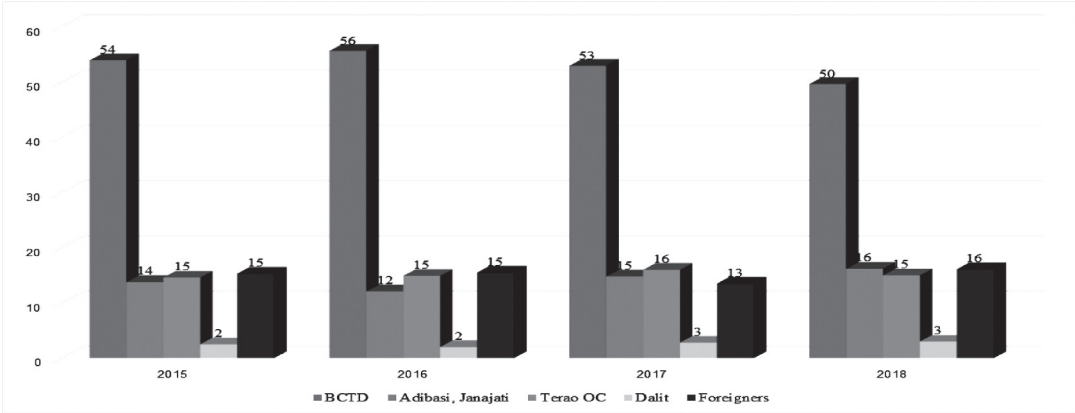
| Years | Caste and Ethnicity | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | BCTD | | Adib, Janajati | | Musl TOC | | Dalits | | Foreigners | | |
| | N | % | N | % | N | % | N | % | N | % | |
| 2015 | 956 | 53.9 | 245 | 13.8 | 259 | 14.6 | 44 | 2.5 | 271 | 15.3 | 1775 |
| 2016 | 930 | 55.6 | 203 | 12.1 | 249 | 14.9 | 33 | 2.0 | 259 | 15.5 | 1674 |
| 2017 | 970 | 52.9 | 271 | 14.8 | 293 | 16.0 | 51 | 2.8 | 247 | 13.5 | 1832 |
| 2018 | 793 | 49.6 | 259 | 16.2 | 240 | 15.0 | 48 | 3.0 | 258 | 16.1 | 1598 |
| Total | 3649 | 53.0 | 978 | 14.2 | 1041 | 15.1 | 176 | 2.6 | 1035 | 15.0 | 6879 |

*Source: Researcher's calculation through SPSS using data obtained from Universities (TU, KU)*

Table 3 illustrates the representation of MBBS students from different caste and ethnic groupin different years. The representation of BCTD outweights within each year with 53% in average. Similarly, Adibasi, Janajati 14.2%, Muslims and Terai OC 15.1%. The only exception is Dalits in which the representation of students is surprisingly low with 2.6%. It should be noted that the representation of Adibasi, Janajati and Muslim, Terai OC is comparatively similar.

**Figure 1**

*Caste and ethnic Composition of MBBS Students in Different years ( 2015-2018)*




*Source: Table 3*

Figure 1 presents the scenario of caste/ethnic composition of MBBS students in different years (2015-2018) and shows that caste/ethnicity disparities in student representation. This unequal representation by caste/ethnicity becomes more pronounced in MBBS. Caste/ethnic disparities are also marked in terms of relative representation within a social group.

**Table 4**

*Caste and Ethnic Representation in MBBS Education by Province*

| Provinces | Caste/Ethnicity | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | BCTD | | Adib,Janajati | | Musl,T OC | | Dalits | | Foreigners | | |
| | N | % | N | % | N | % | N | % | N | % | |
| Province 1 | 372 | 65.6 | 117 | 20.6 | 46 | 8.1 | 15 | 2.6 | 17 | 3 | 567 |
| Madhesh Pradesh | 715 | 48.0 | 169 | 11.3 | 484 | 32.0 | 54 | 3.6 | 67 | 4.5 | 1489 |
| Bagmati | 902 | 67.3 | 366 | 27.3 | 33 | 2.5 | 13 | 1.0 | 27 | 2.0 | 1341 |
| Gandaki | 633 | 81.0 | 98 | 12.5 | 10 | 1.3 | 25 | 3.2 | 15 | 1.9 | 781 |
| Lumbini | 576 | 73.3 | 86 | 10.9 | 74 | 9.4 | 20 | 2.5 | 30 | 3.8 | 786 |
| Karnali | 85 | 81.0 | 13 | 12.4 | 0 | 0 | 5 | 4.8 | 2 | 1.9 | 105 |
| Far Western | 165 | 85.5 | 10 | 5.2 | 6 | 3.1 | 6 | 3.1 | 6 | 3.1 | 193 |
| Foreigners | 417 | 25.8 | 59 | 3.6 | 276 | 17.1 | 10 | 0.6 | 855 | 52.9 | 1617 |
| Total | 3865 | 56.2 | 918 | 13.3 | 929 | 13.5 | 148 | 2.2 | 1019 | 14.8 | 6879 |

*Source: Researcher's calculation through SPSS using data obtained from Universities (TU,KU)*

**Chi-Square Tests**

| | Value | df | Asymptotic Signif (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 3634.267[a] | 28 | 0.000 |
| Likelihood Ratio | 3329.838 | 28 | 0.000 |
| Linear-by-Linear Asso | 1488.636 | 1 | 0.000 |
| N of Valid Cases | 6879 | | |

*** Significant at 100% confidence level.

a. 2 cells (5.0%) have expected count less than 5. The minimum expected count is 2.26.

Symmetric Measures

| | | Value | Approx Significance |
|---|---|---|---|
| Nominal by Nominal | Phi | 0.727 | 0.000 |
| | Cramer's V | 0.363 | 0.000 |
| N of Valid Cases | | 6879 | |

*** Significant at 100% confidence level.

Province One is rich in socio-cultural and lingual diversity. According to the Census of 2011, dominant caste and ethnic groups of the province are Khas Arya, Madhesi, Terai Janajati, Muslim, and Dalit. Janajati comprise 50% of the total population and is culturally diverse. MBBS students seem higher among BCTD ethnic group followed by Adibasi, Janajati and Dalits are in the least among all caste and ethnic groups. Among them BCTD is 65.6%, Adibasi, Janajati is 20.6%, Muslim and Terai OC is 8.1% and Dalits are only 2.6%.

Province-2 is characterised by caste and ethnic diversity. Out of total population Madhesi comprise 67.2%, the largest ethnic group including Madhesi Dalits. This province is also led by BCTD with 48.0% and is followed by Muslim and Terai OC that is 32.0%. Adibasi, Janajati covers 11.3% and Dalit is at the bottom with only 3.6%.

In Bagmati Province trend of migration is significantly high. Kathmandu, Lalitpur, Bhaktapur and Chitwan have been rapidly transforming and socio-cultural and linguistic diversity deepening. 53% of the total population in the province is occupied by Hill Janajatis but each of them remain in minority if disaggregated into Tamang, Newar and other. Khas Aryas, having 37.1% of the total population, turns out to be the largest group in this province. Tamangs and Newars are indigenous peoples of the province. Majority of Newar population is confined to three districts of the Kathmandu valley. This province is also led by BCTD in MBBS with 67.3%

representation and is followed by Adibasi Janajati with 27.3%. Muslim and Terai OC and Dalits are found to be least represented with only 2.5 and 1% respectively.

Gandaki Province constitutes the population of Khas Aryas, Magars, Gurungs, and hill Dalits. 39.3 percent of the total population are Hill Janajatis. Magars and Gurungs are distinct among Hill Janajatis. Khas Aryas turns out to be the largest ethnic group with the population of 36.1% in the province. Thakalis, Bhujels, Darais, Chhantyals, Duras, Barams, and others cover 10.5% of the total population. Among the seven provinces of Nepal, Gandaki Province ranks second in Dalit population. BCTD is at the leading position with 81.0% in MBBS education and it is followed by Adibasi, Jaajati with 12.5%. Dalit is in the third positition with 3.2% and the least represented by Muslim and Terai OC with 1.3%.

Lumbini is rich in socio-cultural diversity which comprises Khas Aryas, Magars, Tarai Janajatis (including Tharus), Madhesis, Muslims and Dalits. Khas Arya is the largest social group with 30% of the total population. Magars comprise the second highest population and Tarai Janajati, including Tharus is in third. The total population of Hill Dalits and Madhesi Dalits comprise 14.1% of the total the population is proportionate to the national population of Dalits. In this province, with 73.3% BCTD is leading and followed by Adibasi, Janajati with 10.9%. Muslim and Terai OC is in the third position with 9.4% and Dalit is at the last with 2.5%.

Karnali Province is relatively homogeneous in terms of caste and ethnicity, where Khas Aryas turn to be the largest social group with 60.1% of the total population. Then the Hill Dalits constitute second largest population that is 22.9% has characterised the Karnali Province as the home to the highest population of Dalits. Magar population is in the majority of Hill Janajatis of the province. This province seems to be at the lowest among the provinces in MBBS education with only 105 students during four years period. Out of total students, BCTD is at the first with 81.0% and is followed by Adibasi Janajati with 12%. Dalit is 4.8% and Muslim and Terai OC is in disheartening situation having no representation from the province.

Far-Western Province is also characterised by socio-cultural diversity. Similar to that of Karnali Province, this province also has the largest share of Khas Aryas population that is 60%. The caste and ethnic composition of population of this province include Tarai Janajatis, Hill Dalits, hill Janajati and Madhesi. In MBBS, BCTD is at the top with 85.5%. 5 percent of Adibasi, Janajati; the representation of Muslim and Terai OC and Dalit are equal with 6% each. Social discrimination is still highly prevalent in this province and Dalits and women are the most victimized. The Chi-Squire suggests that MBBS education attainment is significantly different among caste and ethnic groups.

## Regression Result

**Table 5**
*Binary Logistic Regression Result*

| Variables | | Odd Ratio | | |
|---|---|---|---|---|
| Model I | | Model II | Model III | |
| Caste\ Ethnicity | BCTD (Reference) | | 1.00 *** | 1.00 *** |
| | Adibasi, Janajati | | 0.161 (0.11–0.23) | 0.47 (0.32–0.69) |
| | Muslim, Terai OC | | 0.18 *** (0.12–0.26) | 5.56 ** (0.37–0.86) |
| | Dalit | | 0.45 *** (0.30–0.68) | 0.81 (0.52–1.25) |
| | Foreigners | | 0.16 *** (0.095–0.27) | 0.42 *** (0.24–0.73) |
| Provincial Diversity of the Students | Bagmati (Reference) | | | 1.00 *** |
| | Province-1 | | | 0.14 *** (0.9–0.19) |
| | Province-2 | | | 0.27 *** (0.19–0.41) |
| | Gandaki Province | | | 0.33 *** (0.23–0.47) |
| | Lumbini | | | 0.15 *** (0.16–0.34) |
| | Karnali Province | | | 0.24 *** (0.16–0.34) |
| | Far Western Province | | | 0.20 *** (0.11–0.35) |
| | Foreigners | | | 0.23 *** (0.14–0.38) |
| Constant | | 4.53 | 21.2 | 32.4 |
| Cox & Snell R Square | | 0.010 | 0.04 | 0.072 |

*Source: Researcher's calculation from the data of Dean's Office, TU and KU*

As table binary logistic regression result indicates, the multivariate tests shows males are 1.8 times more likely to enroll in private medical colleges with reference to female at 99% confidence level. Similarly, with reference to BCTD, Adibasi, Janajati are 0.161 times; Muslim, Terai OC 0.18; Dalit 0.45 and Foreigners 0.16 are more likely to enroll in private medical colleges at 99% confidence level. This was not a

surprising result because the researcher had expected this based on the descriptive analysis. Likewise, the multivariate test shows that students from Province-1(0.14), Province-2 (0.27), Gandaki Province (0.33), Lumbini (0.15), Karnali Province (0.24) and Far Western Province (0.35) times less likely to enroll than Bagmati Province.

## Conclusion and Implication

Caste and ethnic inclusion in MBBS education, Nepal presents disheartening picture. BCTD is the most represented in MBBS education with 53.2%, in second Muslim and Terai OC, 15.2%, Adibasi, Janajati 14.3% and Dalits are only 2.6%. The Chi-squire Test suggests that MBBS education attainment is significantly different among caste and ethnic groups. Caste and ethnic data of MBBS students in public and private medical colleges revealed that BCTD 73.2%, Adibasi, Janajati 14.9%, Dalits are only 2% in public. Whereas, in private 49.6% BCTD, 14.2% Adibasi, Janajati, Muslims and Terai OC is 16.7% and Dalits are in minority with only 2.7%. BCTD are overrepresented in MBBS and Dalists are underrepresented. Students' characteristics were compared by using Chi-square Test and observed P-value less than five percent which is highly significant.

In provincial analysis of caste and ethnic representation BCTD is at the leading position and Dalits are found to be the least represented. Muslim and Terai OC has no representation from Karnali. All seven provinces are characterized by social discrimination. Gender and caste/ethnic inclusion is found comparatively better in private sector than in public colleges. Government has initiated to implement the inclusion policy through public sector but failure in MBBS education.

Admission to medical school today determines the composition of medical professionals in the future. Caste/ethnic inclusion in medical professionals helps to fully understanding diversity of health problems but disparity is persistent in each admission cycle. Biased medical education affects clinical practice. To address complex and diverse health care needs of Nepalese, the medical professionals must become more diverse. MBBS education attainment is significantly different among caste and ethnic groups. The year wise observation of caste and ethnic inclusion reflects positive trend. Among four caste/ethnic groups BCTD are overrepresented in MBBS and Dalists are underrepresented. All seven provinces are characterized by social discrimination. Caste/ethnic inclusion in medical professionals helps to fully understanding diversity of health problem. Biased medical education affects clinical practice. To address complex and diverse health care needs of Nepalese, the medical professionals must become more diverse. Disparity is persistent in each admission cycle (2015-2018). The year wise observation of caste and ethnic inclusion reflects positive trend. Comparatively 2018 is the most inclusive year, still there exists disparity.

## References


Banerjee, I., Jauhari, A. C., Bista, D., Johorey, A. C., Roy, B., & Sathian, B. (2011). Medical students view about the integrated MBBS course: A questionnaire based cross-sectional survey. *Nepal Journal of Epidemiology,* 95-100.https://doi.org/10.3126/nje.v1i3.5575

Cresswell, J. W. (2014). *A concise introduction to mixed method research.* California: SAGE Publication.

Dixit, H. (2009). Development of medical education in Nepal. *Kathmandu University Medical Journal,9*(1), 1-5. https://doi.org/10.3126/kumj.v7i1.1757

Evgeniou, E., & Loizou, P. (2012). The theoretical base of e-learning and its role in surgical education. *Journal of surgical education, 69*(5), 665-669. https://doi.10.1016/j.jsurg.2012.06.005

Government of Nepal. (2015). The Constitutional of Nepal. Author Nepal Gazette. Retrived from https://www.con stituteproject.org/constitution/Nepal_2015.pdf

Mathema, K., Sharma, S., Karki, A., Upadhyaya, M., Adhikari, R. K., Koirala, B., . . . Lamsal, H. (2015). *Medical Education Report.* Kathmandu: Medical Education High level Task Force.

MCI. (2019). *Foundation course for the undergraduate medical education program.* New Delhi: The Government of India.

Nalliah, S., & Idris, N. (2014). Applying the learning theories to medical education: A commentary. *International E-Journal of Science, Medicine & Education, 8*(1), 50. https://doi.10.56026/imu.8.1.50

Nawabi, S., Maqsood, A., & Javed, M. Q. (2018). Comparative performance of public and private sector health education in Pakistan: Parents' perspective. *International Journal of Advanced Research, 6.* 612-19. https://doi.10.21474/IJAR01/8037

Ravishankar, P. (2011). Undergraduate medical education in Nepal: one size fits all? *Journal of Educational Evaluation for Health Professions, 8.* https://doi. 10.3352/jeehp.2011.8.9

Rawls, J. (1985). Justice as fairness: Political not metaphysical. *Philosophy and Public Affairs, 14* (3), 223-251. https://www.jstor.org/stable/2265349

Shammari, Z. A., Faulkner, P., & Forlin, C. (2019). Theories-Based Inclusive Education Practices. *Asian Institute of Research: Education Quarterly Reviews, 2*(2), 408-414, https://doi.10.31014/aior.1993.02.02.73.

Shehnaz, S. I. (2010). Privatisation of Medical Education: Viewpoints with a Global Perspective. *SQU Medical Journal.10*(1), 6-11. https://pubmed.ncbi.nlm.nih.gov/21509076/

World Federation for Medical Education [WFME]. (2012). *Basic medical education: Global standard for quality improvement.* World Federation for Medical Education.

World Health Organization [WHO]. (2018). *Mapping of health professional education institutions in Bangladesh.* Dhaka: World Health Organization, Bangladesh. https://cdn.who.int/media/docs/default-source/searo/bangladesh/pdf-reports/year-2016-2018