CHAPTER: III

Research Methodology

This chapter of the thesis emphasizes on the methodology adopted for the completion of the research work undertaken by the researcher. The researcher has done a descriptive type of research which means fact findings of different kinds and to observe the characteristics of a particular individual or group. With the brief introduction of the research, the characteristics of qualitative research is undertaken to completely understand the type of nature of research. This chapter includes the description of the study area studied by the researcher. The chapter contains the details of how the sample was selected for the study, what research tools were adopted to collect the primary and secondary data and lastly how the data was analyzed and interpreted to reach the conclusion by the researcher. This chapter presents the complete research methodology followed for the work done.

3.1. Introduction:

As research means (re; search) searching again and again or to search new facts in any branch of knowledge. This research is based on searching new facts related to one of the aspect of knowledge i.e. traditional knowledge dealt by library professionals. Research methodology outlines the entire research work carried out by the researcher and the Systematic methodology is the key of success of any type of research project, as it has direct impact on the relevancy of the research findings. In social science research, it becomes essential for the researcher to adopt some pattern of standard procedure, which is designed for a particular practice. In the field of social sciences, the emphasis is to generate knowledge about the world by using qualitative and quantitative methods of research. This chapter of research report provides the information regarding the selection of methodology, designing of methodological tools for data collection and data analysis.

The researcher has to make a choice, predominantly on the research problem, to select the various research approaches and methods, most likely to provide insight and explanation into matters of concern. The selection of methods or sampling also depends upon the time available for research, resources available for research and the cost incurred in research. Qualitative techniques
were used for this research study as this work is completely based on qualities of the different sources available in diverse climatic conditions.

3.1.1. Qualitative Research:

Qualitative research is concerned with qualitative phenomenon i.e. phenomenon relating to or involving quality or kind. It describes reality as experienced by the communities or individuals.

“Qualitative research methods were developed in the social sciences to enable researchers to study social and cultural phenomena. Examples of qualitative methods are action research, case study research and ethnography. Qualitative data sources include observation and participant observation (fieldwork), interviews and questionnaires, documents and texts, and the researcher’s impressions and reactions” (Myers, 1997).

Qualitative analysis helps in getting a total understanding of specific relations, going in-depth into the problem, and developing hypotheses and theories. In this type of analysis it is possible for the researcher to carry out data analysis and interpretation almost similar to its collection. Thus making this technique more flexible but sometimes become over complex due to this simplicity.

To carry out this type of research, in depth interviews and group discussions were carried out with the Traditional Knowledge Holders (TKHs). Direct observation was also taken into account while taking the interviews to see the various facial expressions of the TKHs, their patients, their nearby locality and general public.

3.2. Study area:

Himalayas, the great mountain system extends almost 2,500 km. from North-West to South-East and width of Himalayas is between 250 to 300 km. The Himalayas are one of the youngest among the mountain system in India and these are believed to be 40 million years old. The Himalayas are also the highest mountain system in the world. The Himalayas have a great wealth of medicinal plants and traditional medicinal knowledge. There are three zones in the Himalayas:

1. Western Himalayas (Jammu-Kashmir and Himachal Pradesh)
2. Central Himalayas (hill Districts of Uttar Pradesh)
3. Eastern Himalayas (Sangrila Range and Brahmaputra Watershed)
Fig. 3.1: Map showing mountainous range of Western Himalayas (Source: Maps, 2013)

Fig. 3.2: Map showing vegetation landscape of Western Himalayas
Among the three zones of Himalayas the Western Himalayas is opted for the conduct of research. Western Himalaya lies within the Himalayan system west of Nepal more precisely west of river Kali. It is the major segment of the entire mountain chain. It is farthest from the sea; longitudinally higher than the rest and shows quite dissimilar climatic pattern.

### 3.2.1. Characteristics:

Western Himalayas presents a unique and characteristic picture of landforms. It covers the two beautiful northern states of the India i.e. Jammu and Kashmir and Himachal Pradesh.

![Map showing the Jammu and Kashmir region of the study area](Source: Travel India-Guide, 2013)

Jammu and Kashmir (J&K) is located in extreme north of India. It occupies a most strategic position in the entire Himalayan region. Its border touches China in the north and east, Afghanistan in the north-west and Pakistan in the west. The states of Punjab and Himachal Pradesh border it in the south. The eastern, western and southern borders of the state form the International Border of India. To the east and north of the state lies Tibet (Kishtwari, 2003).

The state has three distinct regions – Jammu to the south of Kashmir, the Vale of Kashmir, which lies south of the Great Himalayan axis and Ladakh to the north of Kashmir. It is the largest of
India’s Himalayan states. The three regions differ in climate, geography, ethnic makeup and culture (World Book International, 1996).

The state is blessed with lot of highest mountainous peaks, natural springs and lakes. Kashmir is also known as “Heaven on the Earth”. Drass, the second coldest place of the world is the part of the state. Its mountainous range contains a good number of medicinal plants.

Fig. 3.4: Map showing the Himachal Pradesh region of the study area (Source: Travel India-Guide, 2013)

Popularly known as the Devbhumi – "Land of the Gods", Himachal Pradesh is a beautiful hill state in northern India nestled in western Himalayas. The state is landlocked with the Tibetan plateau to the east, Jammu and Kashmir to the north, and the Punjab to the west. However the state stands apart from its neighbours in terms of its sheer topographic diversity and breathtaking pristine natural beauty. The state ranges from vast tracts of high-altitude Trans-Himalayan desert to dense green deodar forests, from apple orchards to cultivated terraces, from snow capped high Himalayan mountain ranges to snow fed lakes and gushing rivers (Unforgettable Himachal, 2009).

The Himachal Pradesh is a home for several medicinal plants and indigenous knowledge practices. “It has been the abode of Rishis and munies, like Vyasa, Bhardwaja, Kalidas and the legendary Pandavas. Ayurveda has had its origin in Himachal, with the first ever seminar being held
here (Charak Samhita). Jantras, mantras coupled with herbs are still being used to cure peelia, snake/scorpion bites, rabies, bone fractures, gangrenes, body pains, eczema, childbirth etc.” (H.P. forest Deptt, 2009).

The Western Himalayan region is inhabited by various tribal and rural communities predominately Gaddi, Gujjar, Kinner, Bhot or Bhotia, Swangla, Lahaula, Brokpas, Baltis, Changpas and Pangwal (Tribes of Jammu & Kashmir, 2008 and Tribes of Himachal Pradesh, 2008).

3.2.2. Population:

As per the Census report of 2011 the states come under my study area i.e. Jammu and Kashmir and Himachal Pradesh has more rural population than the urban one. Similarly, the persons who are illiterate are again more in rural than urban one. It has been found that the Schedule Tribes residing in rural areas are much greater than the urban ones. It shows that the tribes in the rural community are higher in both the states as per the urban community. These native people, being close to nature, make maximum use of herbs to cure various diseases and thus, are the custodians of indigenous traditional knowledge associated with their surrounding biological resources.

Table: 3.1: Population of J&K and Himachal Pradesh

<table>
<thead>
<tr>
<th>Factor</th>
<th>Jammu and Kashmir</th>
<th>Himachal Pradesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural population</td>
<td>15,53,433</td>
<td>13,12,510</td>
</tr>
<tr>
<td>Urban population</td>
<td>5,66,285</td>
<td>1,70,770</td>
</tr>
<tr>
<td>Rural Schedule Tribes</td>
<td>14,06,833</td>
<td>3,74,392</td>
</tr>
<tr>
<td>Urban Schedule Tribes</td>
<td>86,466</td>
<td>17,734</td>
</tr>
<tr>
<td>Rural Illiterates</td>
<td>43,60,110</td>
<td>17,04,314</td>
</tr>
<tr>
<td>Urban Illiterates</td>
<td>11,13,959</td>
<td>1,20,552</td>
</tr>
</tbody>
</table>

(Source: Census of India, 2011)

This research area covers Western Himalayas which includes the two states of the Northern India. Data was collected from Kullu, Manali, Dharamshala, McLeodGanj, Shimla of Himachal Pradesh and Kathua, Jammu, Kishtwar, Reasi, Rajouri, Srinagar, Kargil and Nubra of Jammu and Kashmir. The area was explored for the TKHs with the help of localites and the available sources were contacted and the requisite data was collected from them.
3.3. Sampling Techniques:

A sample is the reflection of the whole population and bears all the characteristics of the population. Sampling reduces the number of respondents to lesser extent. Qualitative research has to define the kind of people to be incorporated in the study. As qualitative research is pointed towards typical cases thus it is flexible towards sample in size and types of subjects. It points towards the purposive (non-probability) sampling rather than random (probability) sampling. This research is not towards the representatives but towards the suitability. This study cannot adopt strictly defined size rather it adopts convenient and suitable size of sample. To deal with this type of study, the researcher could not frame or choose the sample before the onset of study but it progressed as the study moved on. In this case, the help of theoretical sampling is undertaken. Qualitative sampling is relatively small, doesn’t employs statistics; does not depend on probability theory; size is not statistically determined; sample size is not fixed. Qualitative sampling facilitates analytical generalizations. In order to find out the sources of traditional knowledge in the selected area, the sample was purposively selected on the basis of the rich knowledge of medicinal plants. Thus, for this study the researcher used the simple non-probability sampling technique for data collection.

3.4. Pilot study:

It is essential in the qualitative research that the pilot study must be carried out. Pilot study helped the researcher to carry out this research work with clear notion and confidence. Pilot study is the small scale replica and rehearsal of the main study. Initially the researcher contacted the few TKHs and while interacting with them she drew some factors to be highlighted and also it helped the researcher to prepare a pre-planned interview schedule for good interview. In case of case study, pilot study becomes the necessity of the researcher to know whether the respondents are accessible or not; whether the area is convenient or not; whether the techniques of data collection generate enough information or not; whether any changes or modifications are required in the plan.

3.5. Research Tools:

Without adopting any research tool, it is not possible to accomplish the task. It helps to design the strategy for the study. It helps to determine the conditions for the data collection and its analysis to reach the final goal of conclusion. As this research work is associated with the qualitative aspect so the strategy used for the purpose of this study, is the case study.
3.5.1. Case study:

It is deep and intensive study of a particular social unit. It is a very popular method in case of qualitative analysis and involves careful and complete observation of the sources. Case study tool is adopted for this research as it helped the researcher in-depth study, study of unique cases and new phenomenon used by the TKHs to satisfy their patients.

3.6. Sources for data collection:

To complete the task, every effort was made to collect the information regarding TKHs. To collect the qualitative data mainly primary sources were selected. To collect the data from primary sources, a pre-planned interview schedule was made to cover the maximum attributes regarding the TKHs. To strengthen the data collected, secondary sources are also used. In order to accomplish the information given regarding the plants used by them and the plants observed in the locality and vicinity of the area, the secondary sources were used. Secondary sources include all the possible ways which give complete information of the medicinal plants used in the preparation of the traditional medicines.

The foremost step undertaken during the course of study is the review of the literature on the study area and the research problem so that the researcher will be aware of the things where the researcher has to go and what aspect she has to deal with.

3.6.1. Primary data:

Any study is based on the primary data. More the data is enriched more is the validity of the study. In this study the primary data is the information obtained from the different sources of traditional knowledge. In order to collect the primary data of this study detailed personal interviews and general observation of the sources has been undertaken. Primary data has been collected from the various districts of J&K and HP

3.6.1.1. Interview:

Interview means the verbal questioning. The information received from the TKHs provides insight into the nature of social reality. It helps to explore hidden dimensions of the problem. The set of structured questions (interview schedule) in which answers are recorded by the researcher is used
for the collection of information from the TKHs. The interview schedule used by the researcher has two parts; the first one is personnel information which is regarding the identity of the interviewee and the second part is specific information which deals with the information regarding the subject under study (See Annexure I). In some of the cases, the help of the translator (mainly a local person who knows either Hindi or English) is taken to gather the maximum information as TKHs speak frequently in their own local language and they also feel free to share the information with the localite rather than outsiders. Dogri, Pahari, Kashmiri, Tibetan are the main languages spoken in the study area.

3.6.1.2. Observation:

This tool for collection of data is also used to know the accuracy of the information. This method implies the use of eyes rather than ears. While observing the TKHs, their patients, the feel of satisfaction and any disappointment can be studied clearly. While interacting, the respondent tries to hide the facts but face gives the clear picture of that. Researcher tried to gather the maximum possible information from them to authenticate the data.

3.6.2. Secondary data:

“A search of secondary data sources should precede any primary research activity. Secondary data may be sufficient to solve the problem, or at least it helps the reader better understand the problem under study. Secondary data is cheaper and quicker to collect than primary data and can be more accurate. Before making use of secondary data there is need to evaluate both the data itself and its source. Particular attention should be paid to definitions used, measurement error, source bias, reliability and the time span of the secondary data. Where possible, multiple data sources should be used so that one source can be cross-checked for consistency with another” (Crawford, 1997).

To get the secondary data a variety of sources like population census, newspapers, magazines, books, reference books, unpublished reports, university research reports, journal articles etc. has been scrutinized. Secondary information collected from the various channels like internet (e-journals, digital libraries, websites of organizations, e-books, search engines, webliographies, online databases etc.) libraries of JU and KU, conferences proceedings, etc.
3.7. Data Analysis and Interpretation:

After the completion of the work i.e. collection of data; the first step undertaken by the researcher was the checking of the data collected through interview schedule, which is followed by sorting of the information received through TKHs, then presentation of the received information in meaningful manner and lastly analysis and interpretation of the facts studied by me. One of the simplest and most revealing devices to summarize data and present it in a meaningful fashion is to tabulate the data. In qualitative research data is classified on the basis of some attributes or qualities. A Table is a systematic arrangement of data in columns and rows. A comparative statement of all the TKHs studied was tabulated in a Table in coded manner (See Annexure II) as to sort the information. A total of 46 TKHs were interviewed for this study in detail and has referral cases more than 15 in number. The information regarding the local myths were also collected and provided in the requisite chapter. The information regarding the 95 medicinal plants and 2 other products used as a source was also compared and given in the requisite chapter. Then the sorted information is presented in tabular form with the percentage to analyze the data. Percentage is the simplest tool to differentiate data from 0-100. To give better visual presentation of the results pie charts were used. Analysis of data throws light on various aspects which enabled me to reach the conclusions of the research problem.
References: