

## **Documentation, of Siddu a traditional wheat based fermented food of Himachal Pradesh**

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### **ABSTRACT**

Traditional foods are simple and basic foods which has not been modernized, not processed and not packed. Siddu a “himachali dish” is one of the mostly frequently consumed dishes of upper hills in Himachal Pradesh, mainly in Shimla and Kullu districts. It is a local stuffed steamed bread made from fermented wheat flour dough. Regional variation are there in the preparation of siddu, so the present study was conducted for documenting of the recipe of siddu. For achieving the objective, a documentation survey was carried out in two districts, namely Shimla and Kullu of Himachal Pradesh. In each districts four Blocks were selected and in each block two villages were selected randomly. Data was collected on the developed performa by using personal interview method. The data collected contained general information of respondent and specific information related to siddu consumption pattern and cooking method followed. From the documentation it was concluded that the siddu prepared in Shimla district was oval in shape and where as in Kullu district these were disc shaped. Whole wheat flour was used as dough for base. In Shimla district Sesame and poppy seeds were used as stuffing material while majority of the respondents of Kullu district used walnut and apricot paste for stuffing material. Majority of the respondents (88.75%) of Shimla district consumed siddu occasionally while in Kullu district 52.5% of the respondents consume siddu monthly and 46.5% consume siddu occasionally. All the respondents of Shimla and Kullu District used ghee to serve siddu.

**KEYWORDS :** Traditional food, siddu, consumption pattern, cooking method, fermented food

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### **I. INTRODUCTION**

Traditional foods are the foods which has been passed on from one generation to another and have a historic precedent in a national, regional or local cuisines. These have a geographical indication and tradition specialties. Traditional foods are simple and basic foods which has not been modernized, not processed and not packed. Since food is an important part of our culture and tradition it can be characterized as an important element of the cultural identity for sustaining life. Food is an integral and indistinguishable part of human and it explains the complex interrelationship between the socio-cultural and ethnic identity of a particular region, where these has been consumed since long.

State of Himachal Pradesh is situated in northern part of India in the foothills of Himalayas. It has a diverse culture and heritage of tradition and food. The state has huge versatile demographic and geographic conditions. It has a huge heritage of art and craft and have deep-rooted values of morality in its diverse social fabric. The values of compassion for all and rationality of thoughts come from various civilization traditions and deep spirituality. The people of Himachal Pradesh have a deep-rooted ethos of benevolence sympathy with regards to the philosophy of humanism.

Himachal Pradesh is a home of a variety of foods, for which method of preparation and raw ingredients varies from one district to another. Various food items have a historical and traditional background associated with them and method of their preparation is being passed on by one generation to the other. The social and cultural identity of the people living in a region is linked with the food items that are consumed by them people of that region. The method of preparation of any respective food item depends upon the agro-climatic and geographical conditions of that particular region. These traditional food items are deeply linked with the socio-cultural lifestyle of the people in the state. These traditional food items can be characterized as the geographical and demographic identity of the particular region. From procurement of ingredients to the method of preparation, each and every element required for the preparation of food item plays a crucial

role and this knowledge is being transferred from one generation to the other. There are various traditional food items like *bhaturu*, *manma*, *marchu*, *siddu*, *dosha*, *chilra*, *bedvin roti*, *gulgule*, *seera*, *pinni* etc. which are consumed by people of Himachal Pradesh.

Some of these food items like *bhaturu*, *siddu*, *chilra*, *bedvin roti*, *gulgule*, *seera*, *pinni* are prepared from wheat. Out of these traditional food items ; *siddu* a “*himachali dish*” is one of the mostly frequently consumed dishes of upper hills in Himachal Pradesh, mainly in Shimla and Kullu districts *Siddu* is a local stuffed steamed bread made from fermented wheat flour dough . The stuffing material varies from one district to another . It can be opium seeds, walnut seeds, spices, legumes etc . Normally, it is eaten or served with Desi ghee “*Clarified Butter*”, dal mainly (*Lentil Broth*) or with green chutney (made from *Pudina* and *Coriander leaves* ).It can be steamed or steamed than shallow fried. Generally these are made in winters, when there is snow and weather is very cold, this is an energy rich food consumed during excessive cold and in snowfall. *Siddu* tastes great but its familiarity is limited as compared to other Indian cuisines. .. *Siddu* can be characterized as a cultural and geographical identity of *Kullu* and *Shimla*. Much work has not been done on the nutritional quality evaluation of traditional foods consumed in Himachal Pradesh. *Siddu* is one of the traditional food which needs documentation as much work has not been reported on this aspect. So the present study was taken with the purpose of

## II. Material & Method

**Selection of area and subject:** The present study was conducted in Shimla and Kullu district. In each district four blocks were selected randomly. In each block, two villages were taken and in each village ten villagers were selected randomly for the documentation of *siddu*.

**Preparation of questionnaire:** For documentation purpose a questionnaire was prepared after pre testing and post testing of questionnaire was done. The questionnaire contained general information of respondent and specific information related to *siddu* consumption pattern and cooking method followed.

**Experimental layout and analysis:** The experimentation was conducted in the Post-Graduate Laboratory of Department of Food Science, Nutrition and Technology, College of Community Science, CSK Himachal Pradesh Krishi Vishwavidalya Palampur .In order to achieve objectives of the study and arrive at proper conclusions, different mathematical and statistical tools such as percentage was calculated.

**Collection and Tabulation of data:** The selected population of the target areas was interviewed and the information was collected as per the questionnaire. The data collected from the interview method about general information of respondent and specific information related to *siddu* consumption pattern and cooking method followed were subjected to Analysis of Variance (ANOVA) using statistical package Analysis Of Variance in Completely Randomized Factoria Design (AVCRFD). The obtained data were interpreted following Sendecor and Cochran (1994).

## III. RESULT AND DISCUSSION

**General Profile :** During the course of investigation the information regarding the information regarding the general profile was gathered extensively. The information regarding the general profile was gathered from eight villages in Shimla district and eight villages in Kullu district. Table 1 a. represents the information regarding the general profile of Shimla district while Table 1 b. represents the information regarding the general profile of Kullu district. During the course of investigation response of 10 respondents were taken from each village in both Shimla and Kullu district. The general profile of these two districts, namely Shimla and Kullu contains information regarding the Sex, Age, Caste, and occupation of the respondents.

The information tabulated in table 1a , depicts that all the respondents from the eight villages of Shimla districts were female. Further analysis shows that, majority of the respondents that is nearly 53.7% were females of the age group of 25-40 years. 25% of the female respondents were of the age group of 40-60, 13.7% of the female respondents were of the age group of 60-above. 7.5% of the female respondents were of the age group of 15-25 years. In the sphere of caste, it was observed that , majority of the female respondents, that is nearly 78.75% were of general category. The rest 21.25% of the female respondents were from the schedule caste category. The tabulated information regarding the occupation of the respondents of the eight villages of Shimla district reveals that, majority of the respondents that is nearly, 91.25% have agriculture as their occupation. The rest of the respondents, that is nearly 8.75% belongs to the service sector.

The information tabulated in table 1 b, represents the information regarding the general profile of the respondents of eight villages in Kullu district. In table 1 b, for the information of general profile the information regarding sex, age, caste, and occupation of the respondents were taken into consideration. In the category of gender, table 1b reveals that all of the respondents of the eight villages in Kullu district were females and majority of the females ( 58.75%) belongs to the 40-60. about 33.75% of the respondents belongs to the age group of 25-40 years and 3.755% of the female respondents belongs to the age group of 15-25

year. In the caste domain, the table 1 b reveals that all of the female respondents from the eight villages of Kullu district were of general category. The majority of the respondents of Kullu (82.5%) district have agriculture as their profession. About 16.25% of the population has service sector as their source of occupation.

**Traditional food siddu consumed by residents of Documented area.**

The data regarding the traditional food eaten by the respondents has been tabulated in Table 2. The tabulation is done on the responses given by the respondents of eight villages in both Shimla and Kullu District on various elements of the preparation of *siddu* such as:

**Shape:** The responses collected from the eight villages of Shimla district which has been tabulated in Table 2 a. reveals that in Shimla district, all the *siddu* prepared are of oval shape and in Kullu district, 90% of the respondents said that the *siddu* prepared in their households is of disc shape while 10% respondents said that the shape of the *siddu* prepared in their household is of oval shaped.

**Frequency of consumption:** The frequency of consumption of *siddu* of the Shimla and Kullu districts has been tabulated in Table 2 a. From the tabulation it is revealed that 88.75% of respondents of Shimla districts has favoured the consumption of *siddu* occasionally while the rest 11.25% of the respondents preferred the consumption of the *siddu* monthly. Similarly in Kullu district, majority of the respondents (52.5%) of the respondents likely to consume *siddu*, 46.25% percentage of the respondents preferred the consumption of *siddu* occasionally and 1.25% of the respondents preferred the consumption of *siddu* occasionally.

**Time period:** The information gathered from the respondents indicated that majority of the respondents of Shimla district(36.25%) has been making *siddu* for 10-20 years in Table 2 b. Further analysis reveals that around 13.75% of the respondents has been making *siddu* for 5-10 years, 23.75% of the respondents has been making *siddu* for 20-40 years and 15% of the respondents were making *siddu* for more than 40 years. Similarly in Kullu district the information gathered from the respondents reveals that majority of them that is around 61.25% of the respondents has been making *siddu* for 20-40 years. From their responses it appears that, 22.5% of the respondents has been making *siddu* for 10-20 years, 11.25% of the respondents has been making *siddu* from 5-10 years, and 5% has been making *siddu* for more than 40 years.

**Quantity prepared:** In terms of quantity prepared the Table 2 b. exhibits that in Shimla district majority of the respondents that is 97.5% prepares 10-20 pieces of *siddu* and 2.5% of the respondents prepares 5-10 pieces of *siddu*. Similarly in Kullu district, 97.5% of the respondents prepare 10-20 pieces of *siddu*.

**Method of preparation:** Table 2 c. reveals that in district Shimla all the respondents were preparing *siddu* by steaming while in district Kullu a huge majority of the respondents that is 90.24% were preparing *siddu* by steaming while the rest of the respondents that is (9.76%) prepare *siddu* through steaming and then roasting. From the responses given by the respondents in both the districts ( Shimla, Kullu ) it is evident that steaming of *siddu* is common in both the districts. Furthermore, it is clear that in both the district ( Shimla, Kullu) none of the respondents prepare *siddu* by the method of Steaming and frying.

**Method of cooking:** The responses given by the respondents of eight villages in Shimla district reveals that 98.75% of the respondents use steamer as their apparatus for conducting the process of steaming in Table 2 c. While a miniscule minority of the respondents, 1.25% use traditional method of steaming of *siddu*. This can be attributed to the fact that due to rapid urbanization and industrialization of the society, the traditional method of preparing *siddu* is continuously losing the ground against the mechanical method of steaming. While in Kullu district all the respondents, (100%) use steamer as their apparatus for steaming. The responses also reveals that none of the respondents use pressure cooker as their apparatus for steaming *siddu*.

**Preparation Time:** In Table 2 c. indicates that in Shimla District about 46.25% of the respondent said that it takes 15-25 minutes to prepare *siddu*, 43.75% of the respondents said that it takes 5-15 minutes to prepare *siddu* and 10% of the respondents indicated that it takes 25-35 minutes to prepare *siddu*. Similarly in Kullu district, table 3 reveals that 46.25% of the respondents said that it takes 15-25 minutes to prepare *siddu*, 43.75% of the respondents said that around 5-15 minutes to prepare *siddu*, 10% of the respondents said that it takes 25-35 minutes to prepare *siddu*.

**Base Material:** In table 2 d, responses of the respondents reveals that wheat flour is used by all the respondents of eight villages in Shimla district while 11 out of 80 respondents that is nearly 13.75% of the respondents said that they use both wheat flour as well as refined flour as base material in the preparation of *siddu*. The respondents of the eight villages of Kullu district reveals that, all of them use wheat flour as the base material for the preparation of *siddu*. The responses of the respondents of villagers of Shimla and Kullu district reveals that none of the respondents use rice flour and maize flour as the base material for the preparation of *siddu*.

**Stuffing material:** The responses gathered from the eight villages of Shimla district and eight villages of Kullu district which have been tabulated in table 2 d., shows that, in the eight villages of Shimla

district, all the respondents use Khas-khas as their stuffing material and 9 out of 80 respondents use both Khas-khas and vegetable as their stuffing material in the preparation of *siddu* and none of the respondents use apricot seed, walnut paste, Black gram or any other stuffing material for the preparation of *siddu*. Similarly the information gathered from the 80 respondents of eight villages (10 respondents from each village) shows that all the respondents use walnut paste as their stuffing material in the preparation *siddu*. Also in Kullu district, the responses of the respondents reveals that 12 out of 80 respondents that is nearly 15% of the respondents use apricot seeds as their stuffing material for the preparation of *siddu*. None of the respondents of the villages of the Kullu district that were taken for the data collection uses Black gram, Khas-khas, vegetable or any other stuffing material for the preparation of *siddu*. The analysis of the responses reveals that in Shimla district, Khas –khas is used by all the respondents, while In Kullu district, walnut paste is used by all the respondents.

**Served with :** The information collected from the respondents of the eight villages of Shimla and Kullu district reveals that all the respondents of Shimla district uses ghee to serve the *siddu* and 7 out of 80 respondents that is nearly 8.75% of the respondents use chutney as well as ghee while serving *siddu* in Table 2 e. In Kullu district the responses of the respondents reveals that they also use ghee while serving *siddu*. But in Kullu district 41 respondents out of 80 respondents, that is 51.25% which is slightly greater than the halfway mark uses both chutney and ghee while serving *siddu*, although the respondents serving both ghee and chutney while serving *siddu* in Kullu is far greater than the respondents of Shimla district doing the same.

**Digestibility :** The data of table 2 f. indicates that *siddu* is an easily digestible food item according to the respondents of both Shimla and Kullu district.

**Awareness about traditional method:** the data tabulated in Table 2 f. which has been gathered from the eight villages of Kullu and Shimla district reveals that in eight villages that were taken for the collection of data, 78 out of 80 respondents, that is nearly, 97.5% of the respondents were aware about the traditional method of preparation of *siddu*, while a minute percentage of 2.5% were not aware about the traditional method of preparation of *siddu*. While in Kullu district all the respondents of eight villages were aware about the traditional method of preparing *siddu*. This can be attributed to the fact that as *siddu* is part of the culture of these villages. This linkage between the *siddu* and the culture of these villages has led to the preservation of the traditional method of preparing of the *siddu*.

**Preparing for commercial purposes:** The responses of the villagers of eight villages, in Shimla and eight villages in Kullu district reveals that, none of the respondents prepare *siddu* for any sort of commercial purpose.

#### IV. CONCLUSION

Regional variations are there in the traditional *siddu* recipe and it depends upon the availability of raw food material. Shimla and Kullu district has different agriculture crops which are reflected in the food consumption and preparation methods.

**Table 1 a. Distribution of respondents according to their general profile. (Shimla district n=10 per village)**

Village	Sex		Age (years)				Caste				Occupation				
	M	F	15-25	25-40	40-60	>60	G	ST	SC	OBC	A	T	S	L	T
Chanari	-	10 (100)	-	3 (30)	5 (50)	2 (20)	10 (100)	-	-	-	10 (100)	-	-	-	-
Chamiana	-	10 (100)	1 (10)	7 (70)	2 (20)	-	10 (100)	-	-	-	10 (100)	-	-	-	-
Jhotdu	-	10 (100)	-	4 (40)	5 (50)	1 (10)	-	-	10 (100)	-	8 (80)	-	2 (20)	-	-
Sariyan	-	10 (100)	-	9 (90)	1 (10)	-	3 (30)	-	7 (70)	-	10 (100)	-	-	-	-
Phirnu	-	10 (100)	-	8 (80)	1 (10)	1 (10)	10 (100)	-	-	-	9 (90)	-	1 (10)	-	-
Kounthru	-	10 (100)	-	9 (90)	1 (10)	-	10 (100)	-	-	-	10 (100)	-	-	-	-
Dhanaut	-	10 (100)	-	2 (20)	4 (40)	4 (40)	10 (100)	-	-	-	7 (70)	-	3 (30)	-	-
Jubad	-	10 (100)	5 (50)	1 (10)	1 (10)	3 (30)	10 (100)	-	-	-	9 (90)	-	1 (10)	-	-

M-Male, F- Female, G- General, ST- Schedule Tribe, SC- Schedule Caste, OBC- Other backward castes, A- Agriculture, T-Trade, S- Service, L- Labourer, T-Transportation

\*Figures in paranthesis indicates percentages.

**Table 1 b. Distribution of respondents according to their general profile (Kullu district n=10 per village)**

Village	Sex		Age (years)				Caste				Occupation				
	M	F	15-25	25-40	40-60	>60	G	ST	SC	OBC	A	T	S	L	T
Thaboli	-	10 (100)	-	2 (20)	8 (80)	-	10 (100)	-	-	-	6 (60)	-	4 (40)	-	-
Shamesha	-	10 (100)	-	3 (30)	7 (70)	-	10 (100)	-	-	-	7 (70)	-	2 (20)	-	-
Neether	-	10 (100)	-	6 (60)	4 (40)	-	10 (100)	-	-	-	5 (50)	-	5 (50)	-	-
Tharwa	-	10 (100)	-	3 (30)	7 (70)	-	10 (100)	-	-	-	8 (80)	-	2 (20)	-	-
Bhumteer	-	10 (100)	-	1 (10)	9 (90)	-	10 (100)	-	-	-	10 (100)	-	-	-	-
Bhalyani	-	10 (100)	-	6 (60)	3 (30)	-	10 (100)	-	-	-	10 (100)	-	-	-	-
Hurla	-	10 (100)	1 (10)	3 (30)	4 (40)	-	10 (100)	-	-	-	10 (100)	-	-	-	-
Goshala	-	10 (100)	2 (20)	3 (30)	5 (50)	-	10 (100)	-	-	-	10 (100)	-	-	-	-

M-Male,F- Female,G- General,ST- Schedule Tribe,SC- Schedule Caste, OBC- Other backward castes, A- Agriculture,T-Trade, S- Service,L- Labourer,T-Transportation

\*Figures in paranthesis indicates percentages.

**Table- 2 a.Distribution of responses according to Shape of the siddu and Frequency of consumption**

District	Shape				Frequency of consumption			
	Oval	Round	Disc	Any Other	Daily	Weekly	Monthly	Occasionally
Shimla (n=80)	80 (100)	-	-	-	-	-	9 (11.25)	71 (88.75)
Kullu (n=80)	80 (100)	-	72 (90)	-	-	1 (1.25)	42 (52.5)	37 (46.25)

\*Figures in paranthesis indicates percentages.

**Table 2 b. Distribution of responses according to period of preparation of siddu and quantity prepared**

District	Time period				Quantity prepared			
	5-10 Year	10-20 year	20-40 year	40< Year	5-10	10-20	20-30	30<
Shimla (n=80)	11 (13.75)	29 (36.25)	19 (23.75)	12 (15)	2 (2.5)	78 (97.5)	-	-
Kullu (n=80)	9 (11.25)	18 (22.5)	49 (61.25)	4 (5)	2 (2.5)	78 (97.5)	-	-

\*Figures in paranthesis indicates percentages.

Table 2 c. Distribution of responses according to method of cooking and preparation time taken

District	Method of preparing			Cooking method			Preparation time			
	Steaming	Steaming & Dry roast	Steaming & frying	Traditional method	Steamer	Pressure cooking	5-15 min.	15-25 min.	25-35 min.	35 < min
<b>Shimla (n=80)</b>	80 (100)	-	-	1 (1.25)	79 (98.75)	-	35 (43.75)	37 (46.25)	8 (10)	-
<b>Kullu (n=80)</b>	74 (90.24)	6 (9.76)	-	-	80 (100)	-	35 (43.75)	37 (46.25)	8 (10)	-

\*Figures in paranthesis indicates percentages

Table 2 d. Distribution of responses according to raw ingredients used for preparation of siddu

District	As base material				Stuffing material					
	Wheat Flour	Refined Flour	Rice Flour	Maize Flour	Walnut Paste	Appricot Seed	Black gram	Khas khas	Vegetables	Any other
<b>Shimla (N=80)</b>	80 (100)	11 (11.25)	-	-	-	-	-	80 (100)	9 (11.25)	-
<b>Kullu (N=80)</b>	80 (100)	-	-	-	80 (100)	12 (15)	-	-	-	-

\*Figures in paranthesis indicates percentages

Table 2 e. Distribution of responses according to side dish of serving and digestibility

District	Served with		Digestibility	
	Chutney	Ghee	Easy to digest	Hard to digest
<b>Shimla (n=80)</b>	7 (8.75)	80 (100)	80 (100)	-
<b>Kullu (n=80)</b>	41 (51.25)	80 (100)	80 (100)	-

\*Figures in paranthesis indicates percentages

Table no-2 f. Distribution of responses according to awareness of the traditional method of cooking and preparation of siddu for commercial purpose

District	Awaring of traditional method		Preparing for commercial purpose	
	Yes	No	Yes	No
<b>Shimla (n=80)</b>	78 (97.5)	-	-	80 (100)
<b>Kullu (n=80)</b>	80 (100)	-	-	80 (100)

\*Figures in paranthesis indicates percentages.

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