



ISSN (E): 2277-7695

ISSN (P): 2349-8242

NAAS Rating: 5.23

TPI 2022; 11(12): 55-58

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www.thepharmajournal.com

Received: 08-10-2022

Accepted: 11-11-2022

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Millet based ethnic food products consumed by Santali community of Kokrajhar district of Assam

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Abstract

Millet is considered as coarse cereals of India and primarily constitute a diverse group of small grains and are classified as major and minor millets. It is the oldest staple food grains known to mankind. Millet is rich source of protein, fats, dietary fiber and minerals. These millets have diversified high food value but consumption of millet has been declined due to drudgery in preparation and lack of standardised processing techniques to compete with fine cereals. Hence, to increase the utilization of small millets as popular food, emphasis must be given on documentation of different traditionally formulated millet based food items, which are consumed specially by Santali community of Kokrajhar District of Assam. Most of the traditional method to cook food from millet by local people and tribes of the state of Assam are indigenous. The active nutri-ingredients and potent phyto-chemicals with promising nutritional and pharmacological properties present are yet to be explored and some are in the pipeline. Keeping this in view, a total of 100 respondents were surveyed and found that there are ten indigenous food items which are frequently consumed by Santali community, where different plant-parts, cereals, milk, fruits and nuts were incorporated to enhance its taste. However, nutritional analysis and incorporation of certain nutrients, if required is yet to be studied or may be under pipeline to make it nutritionally sufficient. The different food items includes millet based breakfast items like *roti*, *dosa*, snacks, sweet dish, beverages, etc.

Keywords: Value added millet, millet, ethnic food of Assam, Santali community, Kode

Introduction

Millets are considered as coarse cereals of India and mostly suitable to grow in dry land areas. It's primarily constituted a diverse group of small grains and is classified as major and minor millets based on their seed size. Major millets includes sorghum (*Sorghum vulgare*), finger millet (*Eleusine coracana*), while minor millet include little (*Panicum miliare*), proso (*Panicum miliaceum*), kodo (*Paspalum scrobiculatum*), italianor foxtail (*Setaria italic*) and barnyard millet (*Echinochloa frumentacea*) (Khatoniar S *et al.*, 2020)^[2].

Millets are the oldest food grains known to mankind and is a cereal grains used for domestic purposes (Sarmah 2008)^[6]. For centuries, millets have been a prized crop in India and are staple diet for nearly 1/3rd of population. Millets are nutritionally better than other cereals but their involvement in food as diet is limited to poor and conventional people (Nitin Kumar *et al.*, 2020)^[3]. Millets are mainly available in pearl and hulled kind which taste slightly sweet nearly nut like flavour. The nutritional quantity is four to five times greater than the staple crop like wheat and rice (Reddy Venkata ram teja *et al.*, 2020)^[5]. Nutritionally the importance of Millet is well recognized because of its high content of calcium (0.38%), dietary fiber (18%) and presence of phenolic compounds (0.3-3%) (Palanisamy Bruntha Devi *et al.*, 2014)^[4]. Millets are rich source of protein (8%), energy, fat (4%) dietary fibre and minerals in compared to rice. It is a rich source of calcium and non- starchy polysaccharides (dietary fibre). Prolamines and glutelins form the major portion of their proteins (Khatoniar S, 2020)^[2]. The highly nutritious millet is also non- glutinous and non acidic and least allergenic form of food. These millets have diversified high food value but consumption of millet has been declined due to drudgery in preparation and lack of standardised processing techniques to compete with fine cereals. In this same context, S D Deshpande *et al.*, (2021)^[1] stated that inspite of rich nutritional properties of Millet, some inheritant properties like hard seed coat, poor digestibility, low micronutrient bio-availability are major hindrances in processing and cooking of millets. Hence, in absence of primary, secondary and tertiary processing techniques, RTE value added products are not readily available in the market for dietary diversification.

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The value added products commonly prepared by the farmers or common people from cereals will be replaced with small millet to increase its utilization. Hence, to increase the utilization of small millets as popular food, emphasis must be given on documentation of different traditionally formulated millet based food items, which are consumed by various communities of Assam. Therefore, there is an urgent need to document the ethnic food recipes prepared from millets as associated traditional knowledge, because this knowledge orally passes on from one generation to the next; thus, have vulnerability to be wiped out. Most of the traditional method to cook food from millet by local people and tribes of the state of Assam are indigenous and are not known to the vast world of phyto-chemical science and research, further nitrification or modification of traditional food to make it more nutrient-rich. The active nutrients and potent phyto-chemicals with promising nutritional and pharmacological properties present are yet to be explored and some are in the pipeline. Traditional formulation of millet based recipe with other cereals, and plant-parts has been a deep rooted practical knowledge in the culture and livelihood of the people living in the remote district like Kokrajhar in the state of Assam. The Santali community from Kokrajhar district has been consuming millet more frequently and is consumed as staple food, snacks, beverages and sweet dishes, etc. Hence, the present study was aimed at investigating the traditional formulation and preparation of Millet based food items by

Santali community of Kokrajhar district of Assam in order to identify and explore the ingredients used locally for preparation of food items and also to document traditional formulation of recipes from Millet.




Methodology








The present study was carried out in two development blocks of Kokrajhar district Viz. Kachugaoan and Gossaigaon blocks of Assam. A total of 100 respondents were selected on the basis of information provided by the local administrator and elder people of the study areas. Prior to survey, a semi structured interview schedule was designed and pre tested with five respondents to find out its suitability for the present study and later on it was modified according to response of respondents. The revised schedule was used for collecting data from individual respondent about traditional formulation or preparation of ethnic food from Millet. The ingredients used in preparation of recipe and its scientific names, vernacular names and family were identified consulting literatures.

Result and Discussion

Data collected from 100 respondents reveals that 10 (ten) numbers of ethnic millet based food items were consumed by Santali Tribes of Kokrajhar district. Vernacular name, common name and method of preparation along with ingredient use were discussed with reference to the relevant literatures.

Table 1: Ethnic Millet based food items consumed by Santali tribes in Kokrajhar district of Assam.

Sl. No	Figure	Name	Ingredient used	Method of Preparation
1		Vernacular name: <i>Kode Dumbu</i> Common Name: Millet Ball	Millet powder, sugar, Jaggery, fresh coconut, Cooking oil	Millet grain was grinded to fine powder. Add jaggery, fresh grinded coconut, sugar. Knead dough like texture and make small ball. Fry in cooking oil until dark brown in color.
2		Vernacular name: <i>Belna Pitha</i> Common Name: Millet base Roti	Fine millet powder, salt to taste, oil (ghee/refine), and water	Take millet flour, add a pinch of salt (optional), add lukewarm water slowly and knead it to soft dough. Cover it for half an hour and make small balls. Heat tawa and put one spoon of oil (optional) and make roti.
3		Vernacular name <i>Sunum Pitha</i> Common Name: Millet cake/ Malpuwa	Millet flour, sugar, water, soda and oil	Take millet flour, add sugar powder or melted jaggery. Pour enough water to make it fine paste and flowing consistency without any lumps. Heat sufficient oil in karahi. Place a spoon of batter directly into the hot oil. When it floats in the oil then turn it. Serve hot. Can be stored up to a week.

4		Vernacular name <i>Khapra Pitha</i> Common Name: Unleavened <i>Dosa</i>	Millet powder, mustard oil, salt and water.	Take coarse millet powder; add water, salt, 1 (one) spoon mustard oil. Mix all ingredients well till flowing consistency like <i>dosa</i> batter. Cover it with a lid and kept it rest for at least 2 hours. Heat <i>Tawa</i> (cooking Pan) and pour and spread the batter evenly and cover it with a lid to create steam. Unleavened <i>dosa</i> is served with chilly chutney, hot tea or with vegetable curry.
5		Vernacular name: <i>Kode Halwa</i> Common Name: Millet sweet dish	Millet grains, milk, sugar, bay leaf, cardamom, dry fruits.	Boil milk, add bay leaf, cardamom, sugar into boiled milk, add washed millet grain and stir it continuously till semi liquid consistency. Add dry fruits and serve hot.
6		Vernacular name: <i>Kodu Pitha</i> Common Name: Steamed Millet cake	Coarsely grinded millet, sugar powder or jaggery, coconut, Sesame powder	Take sufficient amount of coarsely grinded millet. Sprinkle little bit of water if the powder is too dry and cover it for half an hour. Place the powder in the lid of a kettle, add little bit of coconut powder, sugar or jaggery and sesame powder too and cover the lid with clean white cloth tightly and place the lid on the top of the kettle. On the other hand, boil water in the kettle and close the lid along with the mixture. The steam millet cake is ready after 5 min and is served with hot tea as snacks.
7		Vernacular name <i>Sukum Pitha</i> Common Name: Millet steamed roti	Millet powder, milk, sugar, tender leaf of banana, oil or ghee	Make a fine and soft dough from millet powder, powdered sugar, milk or water. Knead it properly and roll it into desired shape. Wrap it with tender banana leaf. Don't forget to roast the banana leaf a little otherwise it will tear while wrapping. Then place it above fire ball or above burning charcoal. Serve hot with hot tea or milk.
8		Vernacular name <i>Ghula</i> Common Name: Millet beverage	Millet, sugar and water	Soak millet in water for 12 hours. Make it into fine paste after removing the water. Add water or milk, cardamom and sugar into the paste. Stir it well and serve cold.
9		Vernacular name <i>Kodu Bhat</i> Common Name: Steamed millet (whole grain)	Millet, salt and water	Boil water; add millet and pinch of salt. Close the lid of the vessel and cook it till it get soft and edible like steam rice. Serve hot with any curry or dal and sabji.
10		Vernacular name <i>Kodu Khichri</i> Common Name: Millet Khichri	Millet, Moong dal, Carrot, beans, potato, onion, garlic, ginger, green chili and mustard oil, cumin seed, salt and turmeric powder.	Take equal amount of Millet and lentil i.e, Green gram (<i>moong</i>) dal and wash it properly. Heat water in a vessel and add all ingredient i.e millet, <i>moong</i> and vegetable. Add salt, turmeric powder too. Cook till it gets thick consistency. On the other hand, heat oil in a <i>karahi</i> (Pan), add cumin seed, chopped onion, garlic, ginger, green chili. Pour the hot oil mixture into boiled <i>khichri</i> . Mix it properly and serve hot.

Conclusion

Millet is a staple food and grown in dry land area. The high nutri-rich food is in declining trend of due to drudgery in preparation and consumption. Most of the people are still unaware about its nutritional value and most are unknown to cooking technique and consumption pattern. Hence step must be taken to analyse the nutrient content of indigenous food items and modification must be done to make every ethnic food nutritionally balanced and sufficient.

Reference

1. Deshpande S, Nishad Praween *et al.* Technology for Millet Value-Added Products; c2021, 10.1007/978-981-16-0676-2_14.
2. Khatoniar S, Das P *et al.* Physical and functional properties of some millet varieties of Assam. International journal of current microbiology and applied science. 2020;9(5):1508-1515.
3. Nitin Kumar, Sapna Birania, Ravi Kumar. Post harvest processing of millets: A review on value added products. International Journal of Chemical Studies. 2020;8(1):1824-1829.
DOI:10.22271/chemi.2020.v8.i1aa.8528. Corpus ID: 213986878
4. Palanisamy Bruntha Devi, Rajendran Vijayabharathi, Sathyaseelan Sathyabama, Nagappa Gurusiddappa Malleshi, Venkatesan Brindha Priyadarisini *et al.* Health benefits of finger millet (*Eleusine coracana* L.) polyphenols and dietary fiber: a review. Food science and technology. 2014;51(6):1021-1040.
Doi: 10.1007/s13197-011-0584-9. Epub 2011 Nov 22.
5. Reddy Venkata ram teja, Dipti Bisary *et al.* General Review of major, minor millets nutrient composition, Production and bioavailability. International journal of research and analytical review. 2020;7(4):343-352.
6. Sarmah P. Minor millets of tribal Area. Agrotech Publishing academy, Udaipur, India; c2020.