

A Short Review on Pakhala: A healthy and Nutritious Diet of Odisha and Its adjacent part of India

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ABSTRACT

*Pakhala is an Odia healthy traditional cuisine, consisting of cooked rice fermented in water. This is an incompletely instigated manual non-alcoholic rice product. Depending on the quality of rice and cumulative constituents similar as spices, curd etc which are added to the rice in water; the pakahla can show an inconceivable flavour. Pakahla is extensively eaten particularly by Odiya people during the summer season, in which the average temperature is over 40 ± 2 °C and relative moisture 80 ± 5 . Eating pakahla in this season renders soothing effect to mortal body. Pakahla is some time co-fermented/ mixed with curd, cucumber (*Cucumis sativus* L.), cumin (*Cumin cumin* L.) seeds, fried onion (*Allium cepa* L.) and mint (*Mentha longifolia*) leaves. The aim of this study is to review the importance of Pakhala, its history and types for health concept.*

Keywords: Pakhala, Types of Pakhala, Odiya People, Nutrition, Health concept.

Introduction

“Pakhala” was also in existence at that time. Now- a -days, pakahla recipe has been introduced to the 3- and 5- star hotel menus of Odisha to attract the guests, who are interested in traditional ethnic cuis

Introduction

In India, Pakhala is a burning fermented recipe in adjacent parts of Northern and Southern states. Pakhala is eaten in the eastern part of the Indian subcontinent (including Nepal, Bangladesh and some parts of Myanmar) (Incredible Odisha 2016). The term pakahla is derived from Pali word pakhalita as well as Sanskrit word prakshalana, which means washed to wash (Panda 1991)[1]. It is popular in the state of Odisha and its adjacent part of Andhra Pradesh, Chhattisgarh, Bengal, Gujarat, Assam, Jharkhand, Manipur and Tripura (Figure 1). In Chhattisgarh: Pkhala is called bore

bhat, In Jharkhand: paani bhat, In Gujarat: Ghesh Bhat, In Tamil Nadu: pazhedhu saadham, In Andhra Pradesh: saddi annam, In Bengal: panta bhat, In Assam: poita bhat, and In Kerala: Pazham Kanji. The word "PAKHALA" is derived from Pali word "PAKHALIBA" as well as Sanskrit word "Prakshalana" which means "washed/to wash (Times of India 2019).

The word pakhala was used in the Odia poems of Arjuna Das in his literary work Kalpalata (1520-1530 AD). The Bengali name for this dish is *PANTA BHAT*, in Chhattisgarh it's called *BORE BHAT*, in Jharkhand linguistic communities use names like *PAANI BHAT*, *paakhaal* or *pakhala*, and in Assam it's called *POITA BHAT*, in Tamil Nadu is called *PAZHEDHU SAADHAM* (Monti 2004). Consumption of Pakhala is usually avoided in extreme cold climates, especially in the winter (Roy et al. 2007).

with rice, curd, cucumber, cumin seeds, fried onions and mint leaves [2]. It is popularly served with dry roasted vegetables—such as potato, brinjal, badi and saga bhaja or fried fish.



Figure 1: Map of India Showing (Arrow) consumption of Pakhala.

'Pakhala Divas'

Odisha on Sunday observed the 'Pakhala Divas' marking the popularity of the State's main staple food since ages even in the age of pizzas, burgers and other fast-food items. March 20 is observed as Pakhala Divas to promote cuisine in modern (World Pakhala Divas 2014). Odia people love their cuisine, and 'Pakhala' is one of the best summer dish that helps 'beat the heat (Pati 2019, Thoru 1993).

Ingredients of Pakhala

Raw or parboiled rice (arua or usuna chaula)
(Old rice is preferred)

Salt to taste
Curd (for preparing 'Dahi Pakhala')

Preparation of Pakhala

Pakhal preparation plays a vital role in its traditional attributes and methods. During preparation of Pakhala, they are fried, ground into a fine powder and added to curd with coriander leaves and salt [3]. Mostly, people prefer to eat it with side dishes such as fried potato (Aloo bhaja), fried brinjal (Baigana bhaja), fried and crushed badi (badi churaa), sauted greens (Saga bhajaa), fish fry (Maaccha bhaja) or fried pumpkin flowers (kakharu phula bhaja)(Panda et al. 2011) (Figure 2).



Fig 2: Different images of Pakhala Cuisines.

Types of Pakhala

Pakhala is not only popular in Odisha but neighbouring states such as West Bengal, Jharkhand, Assam, Chhattisgarh, and Tamil Nadu have also added it in their cuisine (Jeera Pakhala 2016, Dhal et al. 2010). There are many classifications of this dish which are given below:

(1)DAHI AND JIRA PAKHALA: is prepared by adding fried cumin with curry leaves to the pakhalā.

(2) CHAIN or GARAMA PAKHAL:A (hot pakhala) is similar to saja pakhala (fresh pakhala) but is served with hot rice [4].

(3) PANI PAKHALA: is a common variant prepared by only adding salt and water to the cooked rice.

(4) ADA PAKHALA: is prepared by adding ginger and salt to the cooked rice soaked in water.

(5)SUGANDHI PAKHALA: It is prepared by adding chopped or grated

ginger and roasted cumin seeds to cooked rice submerged in salty water which gives an aroma to the pakhala.

(6)CHUPUDA : It is prepared by squeezing out the cooked rice washed in water and served with curd, roasted cumin and salt [5].

(8) MITHA PAKHALA: It is prepared by adding sugar or jaggery to cooked rice and water along with roasted cumin. It is an unusual variant and not popular compared to popular fresh or stale pakhala. Sometimes oranges are added as well.

(9) TABHAA PAKHALA: It is prepared by adding lemon water to the cooked rice.

(10) GHIA PAKHALA: It is prepared by adding ghee to the cooked rice.

(11) MALLIPHULA PAKHALA: It is prepared by malli flowers(jasmine) to the cooked rice for aroma.

Nutritional content of Pakhala

Other than helping in keeping the body cool in the energy draining summers,

Pakhala has so many other benefits to the body in our daily food habit (Panda et al. 2007). The nutritional analysis by many food laboratory proved the presence of nutritional components due to fermentation become a body building phenomenon for healthy growing body, mind and soul [6-7].

Concept of Pakhala for health benefits

It is rich in calories (32%), rich in vitamins (28%), easily digestible (22%). The lactic acid bacteria isolated from *PAKHALA BHAT* has the potential of removing anti-nutritional factors in fermented food (Sharma et al. 2010, Charmaine 2013). Besides, many researcher shown a scientific approval for fermentation process of pakhala, They mentioned that if 100gm of rice fermented for 12 hours, the mineral content seems to be increases. (Joshi 2016, Koushik P. 2021

Summer Supplement: Pakhala is considered the best food in summer to beat the heat. It's a great weapon to fight back dehydration due to heavy sweating in summer.

Natural Coolant: This fermented rice is a natural coolant, it reduces body temperature and keeps you cool.

Promote Healthy Bacteria

During fermentation process, many microorganisms are produced, which is responsible to maintain the balance the pH level in the stomach during digestion

Strengthening Bones

To increase the strengthen capacity of bones, calcium is necessary. Pakhala has this nutrient enrichment to evoke the challenges of osteoporosis problems.

Reduce Colitis

Colitis is an autoimmune condition that results in inflammation of the digestive system and increases the risk of many

other diseases. Pakhal is proved to be a good source of due to presence of short-chain fatty acids to reduce the problems of colitis. Still some more research seems to need to accept the use of Pakhala in our daily diets [8-10].

Mineral Rich

Pakhala has got high amount of mineral contents like Iron calcium, potassium etc. As we know that these content may leads to high body building capacity and may remove many infectious diseases.

Reduce Cholesterol

Pakhala has a beneficial impact in lowering cholesterol because of the presence of useful and friendly bacteria.. It has got anticancer properties to control the cancer of colon, liver, stomach, bladder and food system.

Provide Better sleep

Fatigue problem become a hectic issue in modern life. To avoid this problem, many researcher and scientist approved the fermented rice in daily routine to abet the fatigue challenges as it contain high Vitamin B content [11-13]. This practice showed a significant impact for good sleeping which is essential for good healthy and hygenic mind set for our daily life.

Provide Healthy Skin And Hair

According to the study Pakhala rice is rich in micronutrients and minerals, such as iron, potassium and calcium. Some researchers also claim that fermented or Pakhala rice produces collagen, which is essential to maintain skin elasticity. It is also said that fermented rice water can act as a natural conditioner for hair. Since water is rich in vitamin E and ferulic acid, it acts as an important antioxidant [14-15].

Good For Lactating Mothers

Lactating mothers plays an important role to grow up their child. Pakhala plays an

important role to increase the secretion capacity of milk to feed their baby.

Promote Antioxidants and Improve Digestion

Fermented rice increases the antioxidant, antimicrobials, antioxidants, phenolics, vitamin E, phytosterol, linoleic acid, anthocyanin and proanthocyanin which is present in the grain, makes protein more digestible and even helps to prevent the growth of harmful bacteria within the grain [16].

Reduce Toxins

Many researcher shown that ferment has the ability to break down a toxin called aflatoxin in cereals. By soaking and fermenting rice, it reduced the possibility that it is contaminated with arsenic as well.

Control Diabetes

In most of the research it is concluded that consumption of fermented foods can also reduce the risk of diabetes as the fermentation process reduces the glucose level as compared to standard rice [17].

CONCLUSION

From the above review it is concluded that Pakhala is a significant and health conscious food of Odisha which is acceptable in every age of People. The fermentation of rice increases the various antimicrobials, antioxidants and phenolics etc. The nutritious contents of this food have found to cure many diseases like obesity, stress, diabetes, Reduce Colitis, heart attack etc. It is accepted and proved by several scientist and researcher for our daily diet.

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