

DEVELOPMENT AND SENSORY EVALUATION OF “PACHAK PRALEH” (THERAPEUTIC BUTTERMLK)”

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ABSTRACT

The research was undertaken to carry out a pilot study for developing this product for the community. The recipe *PACHAK PRALEH* (Therapeutic Buttermilk) was selected from the *Ayurvedic* text as *Kshemkutuhah* with respect to its known benefits as it improves digestion, increases appetite and light to digest. The product was prepared by taking in consideration the amount of ingredients mentioned in the *Kshemkutuhah*, then the product was further carry forward to sensory analysis. The product exhibited an excellent overall acceptability with respect to its sour taste, and creamish white colour and was ranked excellent for its taste and appearance. Finally it was accepted by the community and was really helpful for its supportive benefits. The product may be carry forward for better detail analytical procedure in future.

KEYWORDS: *PACHAK PRALEH, Buttermilk, Appetite, Digestion.*

INTRODUCTION

Ayurveda is an ancient medical science which deals with to maintain healthy life style and treat the disease. It clearly emphasises the relationship between the food you take and the state of the body and mind. The word *Pachak Praleh* means Therapeutic buttermilk. It is excellent for Digestion, improves digestive fire, light to digest, good for heart, decreases vitiated *kapha* and *Vata*, relieves constipation and very slightly increases *pitta*.

This research contains the preparation and evaluation of *Pachak Praleh*. The recipe is made by referring to the ingredients and procedure mentioned in *Kshemkutuhah* (*Kshemraj Sharma, Kshemkutuhah*^[1]). While preparing *Pachak Praleh* In Buttermilk equal quantities of powders of Cumin seeds, Coriander seeds, Black pepper, Turmeric powder, fenugreek seeds, Piper Longum added. In that decoction of Terminalia Chebula and Pinch of Rock salt and Asafoetida added. In this way *Pachak Praleha* is ready.

MATERIALS AND METHODS

Raw materials procurement- The product is made according to the ingredients and procedure as mentioned in the *Ayurvedic* Literature as *Kshemkutuhah*. All the raw materials required for the preparation of *Pachak Praleh* are selected of Good Quality and these raw materials are procured from local *Ayurvedic* authentic shop.

The materials are Buttermilk (*Takra*), Terminalia Chebula (*Haritaki*), Cumin Seeds (*Jira*), Coriander seeds (*Dhane*) Black Pepper (*Mire*), Turmeric Powder (*Haldi*), Fenugreek Seed (*Methi*), Piper Longum

(*Pimpali*), Rock Salt (*Saindhav*) Asafoetida (*Hing*) as per required. (*Kshemraj Sharma, Kshemkutuhah*^[1]).

Methodology- As per the reference given in the *Kshemkutuhah* product was prepared and while preparing the product First 1 glass (200ml) of buttermilk is taken (Buttermilk is prepared from Cows Curd) .In this powders (1-1pinch each) of Cumin Seeds, Coriander seeds, Black pepper, Turmeric powder, fenugreek seed, Piper Longum added in equal quantity. Then 20 ml decoction of Terminalia Chebula (*Haritaki*) added, In this pinch of Rock salt is added. In this Buttermilk Asafoetida (*hing*) is sprinkled. Stirred the buttermilk well.

In this way *Pachak Praleh* (Therapeutic Buttermilk) was prepared.

Further the quality of therapeutic food product was evaluated by sensory analysis.

Analysis

Sensory Analysis of *Pachak Praleh*

Sensory evaluation was carried out by 5 semi-trained panelists in which each one has its own observation and remarks about the product. The product was scored for its characteristics like appearance, aroma, taste and overall acceptability, on five points Hedonic scale. The product was ranked excellent for its Aroma and Appearance. Sensory evaluation was carried out as per the reference given in (*Singh D, etal 2014*^[2]). Please refer the sample chart of 5 point hedonic scale on Table no 1.

RESULTS

Result of Product Development- The product development was carried out as per the resources, materials, references found in the *Kshemkutuhah*. All ingredients used in the preparation of this product are of good quality and purchased from local Authentic *Ayurvedic* shop. The product was prepared as per the reference and the end product was exhibited slight whitish cream colour and has uniform consistency with sour spicy taste. Final product was served as per mentioned in the procedure and exhibited good physical appearance.

Result of Sensory Evaluation- Sensory evaluation was conducted by 5 semi trained panelists to evaluate the colour, taste, aroma, sweetness, texture of the given product on Five point Hedonic Scale. Among sensory analysis the product ranked excellent for its Aroma and Appearance. The product "*Pachak Praleh*" exhibited a fair result with respect to its taste, flavour and texture as per the reference. Then the colour of the product was ranked fairer and exhibited an excellent mouth feel. Overall acceptability is ranked 5 (like a lot). At last the product exhibited good overall acceptability with respect to sensory analysis.

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flavour and texture as per the reference. Then the colour of the product was ranked fairer and exhibited an excellent mouth feel. Overall acceptability is ranked 5 (like a lot). At last the product exhibited good overall acceptability with respect to sensory analysis. The following table no 1 shows Nutritive values of the buttermilk, table no 2 shows Sample Hedonic Scale, table no 3 shows Mean Score values, table no 5 shows experimental trials and graph no 1 shows the mean values of the product.

DISCUSSION

In the future this Therapeutic Buttermilk can benefit all the people at large but especially more to the the persons who are suffering from digestive problems, constipation, Anorexia diseases of *Kapha* and *Vata* due to its therapeutic benefits as specified in the *Ayurvedic* text.

Pachak Praleh is very good for healthy person for maintaining good digestive system and it increases digestive fire .It is also good for treating many diseases of gastro intestinal tract and Anorexia.It acts as a excellent Appetiser.According to *Ayurved* weak digestive fire is root cause of many diseases,hence this *Pachak Praleh* is very much helpful in maintenance of health and for treating diseases.Hence one should drink this Therapeutic buttermilk daily.

Table 1: Sample of 5 point Hedonic Scale.

Sensory attributes					
Scores	Appearance	Aroma	Taste	Flavour	Texture/mouthfeel
Like a Lot					
Like a Little					
Neither Like Nor Dislike					
Dislike a Little					
Dislike a Lot					

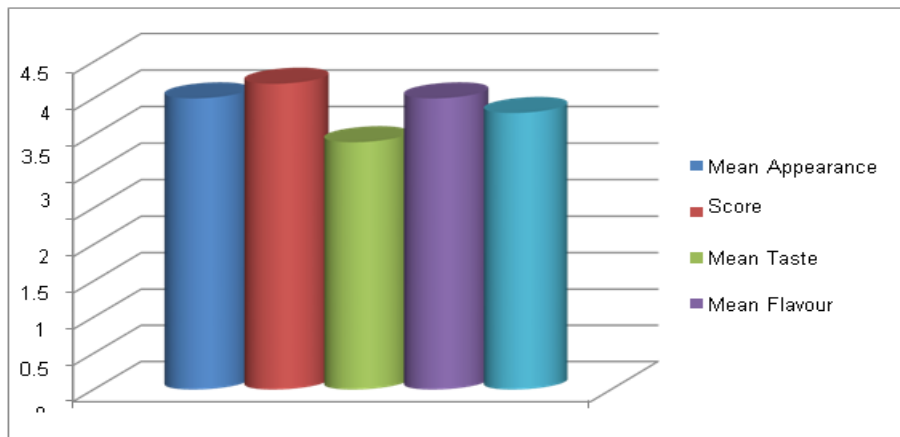
*Like a Lot- 5 marks, Like a Little- 4 marks, Neither Like Nor Dislike- 3 marks, Dislike a Little- 2 marks and Dislike a Lot- 1 mark.

Table 2: Experimental Trials Details.

Ingredients	Proportion	Units (gm/ml)
Buttermilk	1 Glass	200ml
Terminalia Chebula	2 tsp	20 ml
Cumin Seed powder	1 Pinch	0.355625 gm
Black Pepper powder	1 Pinch	0.355625 gm
Coriander seed powder	1Pinch	0.355625 gm
Turmeric powder	1Pinch	0.355625 gm
Fenugreek seed powder	1Pinch	0.355625 gm
Piper longum powder	1Pinch	0.355625 gm
Rock salt	1Pinch	0.355625 gm
Asafetida powder	1Pinch	0.355625 gm

Table 3: Mean Score of Pachak Praleh.

SR.NO	APPEARANCE	AROMA	TASTE	FLAVOUR	MOUTH FEEL
1.	4	5	5	5	5
2.	4	4	3	3	4
3.	4	4	2	4	2
4.	4	4	4	4	4
5.	4	4	3	4	4
TOTAL	20	21	17	20	19
MEAN	4	4.2	3.4	4	3.8



Graph 1: Mean Values.

Nutritional properties

Nutritional properties of Buttermilk as per (www.healthline.com>nutrition^[3]) is as follows-

One cup (245 ml) of cultured buttermilk provides the following nutrients.

Table 4: Nutritive values of the product as per 100 gm.

Nutrients	Value
Calories	98
Protein	8 grams
Carbohydrate	12 grams
Fat	3 grams
Fiber	0 grams
Calcium	22% of the Daily value (DV)
Sodium	16% of the DV
Riboflavin	29% of the DV
Vitamin B12	22% of the DV
Pantothenic acid	13% of the DV



Figure 1: Final Product Pachak Praleh.

CONCLUSION

The product was successfully prepared as per mentioned in the *Ayurvedic* literature. The product exhibited excellent overall acceptability with respect to its flavour, Creamish White colour, Sour and Spicy taste and has pleasant aroma. The product will definitely provide its therapeutic benefit as specified in the *Kshemkutuhul* like both to maintain health and to treat diseases. It is easy to digest, has astringent and sour tastes and is hot in nature. It improves digestion and mitigates *kapha* and *vata*. It is useful in the treatment of inflammation, digestive disorders, gastro intestinal disorders, lack of appetite.

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5 Point Hedonic Scale

Tray No-

Name of the Product- Name of the Panellist-

In front of you is one sample. Taste the given sample and put a "Tick mark" on how much you like or dislike each of the characteristics. You can taste the sample more than once.

REFERENCES

1. Kshemraj Sharma, Kshemkutuhalam Edited by Joshi.Y, Published topic no.11 Kshudbodhak prashasan, Verse, 2014; 2-3: 187.
2. Singh D, Ackbarli, Maharaja R, Sensory Evaluation as a Tool in Determining Acceptability of Innovative Products Developed by Undergraduate Students in Food Science and Technology at The University of Trinidad and Tobago, Journal of Curriculum and Teaching, 2014; 3(1). ISSN.(1927-2677)(10-27)Link-
https://www.researchgate.net/publication/259622487_Sensory_Evaluation_as_a_Tool_in_Determining_Acceptability_of_Innovative_Products_Developed_by_Undergraduate_Students_in_Food_Science_and_Technology_at_The_University_of_Trinidad_and_Tobago.
3. <https://www.healthline.com/nutrition>