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Studies on consumer response of lassi blended with jamun powder

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Abstract
Lassi is a traditional cooling drink used to slake thirst. The level of quality varies greatly. Lassi is also known as butter milk in rural India. Lassi is a little acidic, creamy, thick liquid with a strong scent. Lassi has paramount therapeutic properties and helps in recovery from gastro intestinal disorders. For the further improvement in therapeutic and nutritional importance of Lassi, it is necessary to value addition of natural and innovative ingredients such as vegetable products, fruits, cereals, spices and dietary fiber etc. Lassi is one of the popular traditional fermented milk product having benefits of fermented milk. Lassi popularity has been growing daily due to its nutritive and thirst-quenching qualities in addition to its delicious and revitalising flavor.
Jamun (*Syzygium cumini* L.) is commonly known as Indian Blackberry, Jambul, Black Plum and Java Plum and it belongs to the family Myriaceae. Large trees cultivated in India for the edible fruits that are reported to contain huge amount of vitamin C, gallic acid, tannins and anthocyanins includes cyanidin, petunidin and malvidin glucoside. This fruit offers significant potential for the creation of value-added dairy products due to its distinctive flavour as well as its medicinal and nutraceutical benefits. Thus, turning jamun fruit into products with value-added results in a wide range of exotically flavoured goods with higher nutritional and sensory properties, which can open up a new international market.
It is a good source of mineral salts, calcium, potassium, magnesium, phosphorus, sodium, and vitamin C. It offers 62 Kcal of energy. The most acceptable product in the present study was observed to be the lassi prepared by 1 percent jamun powder (T3) with overall acceptable score of followed by lassi while the lowest score was obtained by lassi with 1.5 percent jamun powder (T4) .From the result of the present study, it may be concluded that the jamun powder 1 part could be used to improve sensory quality of lassi and provides more nutritious, better quality product as compared to normal lassi and can be acceptable for all types of consumer.

Keywords: Lassi, jamun powder and consumer response

Introduction
Lassi is fermented milk product under the category of traditional milk products among the various milk products available in India. Lassi is one of the thirst-quenching drinks that is frequently consumed in the summer since it is cooling and refreshing. Lassi is a traditional cooling drink used to slake thirst. The level of quality varies greatly. Lassi is also known as butter milk in rural India. Lassi is a little acidic, creamy, thick liquid with a strong scent. Lassi is primarily composed of water, with 3% fat, 2.8% protein, 4.5% lactose, and 12.15% sugar. Lassi is typically made in Maharashtra from buffalo milk curd, which has a rich scent, a creamy look, and a flavour that is gently acidic and sweet. (Mule *et al*., 2018) [3].
Lassi has paramount therapeutic properties and helps in recovery from gastro intestinal disorders. For the further improvement in therapeutic and nutritional importance of Lassi, it is necessary to value addition of natural and innovative ingredients such as vegetable products, fruits, cereals, spices and dietary fiber etc. Lassi is one of the popular traditional fermented milk product having benefits of fermented milk. Lassi popularity has been growing daily due to its nutritive and thirst-quenching qualities in addition to its delicious and revitalizing flavor.
Jamun (*Syzygium cumini* L.) is commonly known as Indian Blackberry, Jambul, Black Plum and Java Plum and it belongs to the family Myriaceae. The fruit's high anthocyanin content gives it a flavour that is a combination of sweet, moderately acidic, and astringent, and it tends to turn the tongue purple. When compared to other common fruits like the guava, papaya, banana, and sapota, jamun fruits have a higher amount of antioxidant activity. The inclusion of vitamins, tannin, and anthocyanins is credited with the greater antioxidant activity. This fruit offers significant potential for the creation of value-added dairy products due to its distinctive flavour as well as its medicinal and nutraceutical benefits.

Thus, turning jamun fruit into products with value-added results in a wide range of exotically flavoured goods with higher nutritional and sensory properties, which can open up a new international market. (Singh and Paswan 2015) [6]. The jamun fruit is effective in lowering the risk of spleen enlargement and has a number of medical qualities, including stomachic, astringent, anti-scorbutic, diuretic, anti-diabetic, antioxidant, and anti-proliferative. The use of fruit concentrate to treat chronic diarrhea has a very long history. (Sadawarte et al. 2015) [5].

Jamun is regarded as a conventional treatment for diabetes management. Jamun specifically affects the pancreas, which is the main organ responsible for creating diabetes. The jamun seeds contain a kind of glucose called jamboline, which prevents starch from turning into sugar when the production of glucose, the primary cause of your high sugar levels, is raised. (Bhowmik *et al.* 2013) [1].

Materials and Methodology

The current research on "Studies on preparation of lassi blended with jamun pwoder (*Syzygium cumini*)" was carried out at the Department of Animal Husbandry and Dairy Science, College of Agriculture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. For this study, the following materials and techniques were used to verify them.

1. Material

The following materials were used for the successful completion of present research study.

1.1 Collection of buffalo milk

The Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani College of Agriculture's Department of Animal Husbandry and Dairy Science provided the complete, fresh, clean buffalo milk.

1.2 Microbial cultures

The standard *dahi* culture was used for the preparation of curd.

1.3 Chemicals and glassware

Appliance and utensil cleaning and sterilizing Test tubes, beakers, measuring cylinders, pipettes, spoons, and stainless steel cutlery were among the glass items cleaned in water with detergent powder. Washing under running water helped to get rid of any remaining solution. For six hours, the test tubes and flasks were sterilized in a hot air oven at 100 °C.

1.4 Sugar powder

Sugar powder was used for the preparation of lassi obtained from local market.

1.5 Collection of Jamun powder

Good quality Jamun powder was purchased from local market source of buying.

1.6 Mixer cum grinder

The electric mixer cum grinder was used for the preparation of Jamun powder, available in the PG laboratory.

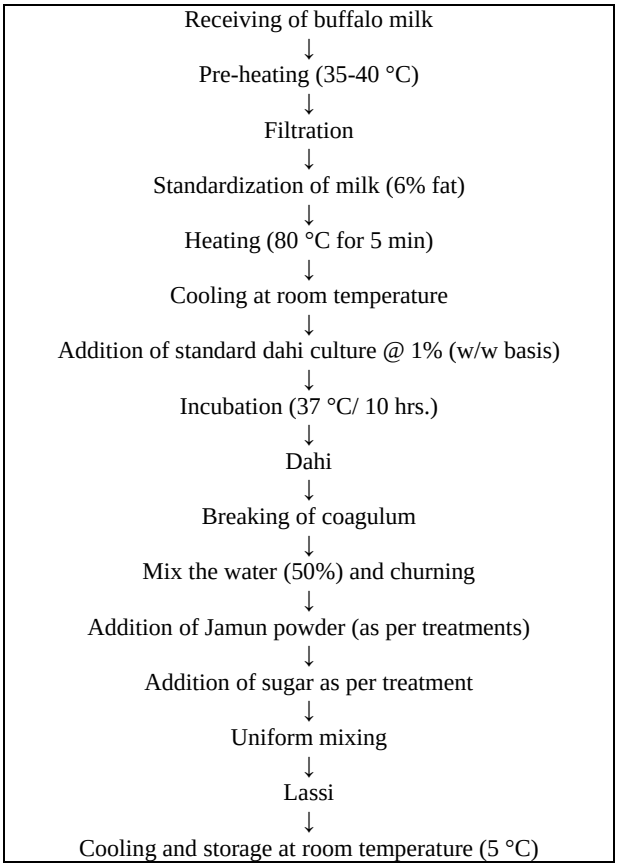
1.7 Water

Clean, potable water was used to make the lassi for the manufacture of the product.

2. Methods

2.1 Preparation of Jamun powder lassi

Jamun powder lassi was prepared as per the procedure followed by Gupta and Kulkarni (1983) [2] with slight modification.



Flow chart 1: Flow chart for preparation of Jamun powder lassi

2.3 Treatment combinations

For preparation of lassi by using jamun powder and adding sugar 10% by weight of lassi and jamun powder as per the treatment combinations was finalized on weight basis as follows: The different levels were tried and compared with control (T_1).

T_1 - control.
T_2 - 99.5 parts of curd + 0.5 parts jamun powder.
T_3 - 99 parts of curd + 1 parts of jamun powder.
T_4 - 98.5 parts of curd + 1.5 parts of jamun powder.

3. Sensory evaluation

A panel of six semi-trained judges chosen based on their evaluating skills evaluated the organoleptic quality of lassi samples of the fresh items. To eliminate the chance of variance, the same judges assessed the samples from each trial throughout the experiment. The sensory evaluation of lassi samples was carried out by using 9-point Hedonic scale described by Gupta (1985) [7].

4. Preparation of jamun powder Lassi

Two liter of fresh buffalo milk was taken for every treatment, pre- heated at 35-40 °C standardized milk at 6% fat. Then the milk was heated and subsequently cooled at room temperature and 1% standard *dahi* culture was added in it and kept it for incubation at 37 °C for 10 hrs. After incubation the prepared *dahi* was break and add the equal quantity of clean potable water was added, churned it by using churner. Thereafter jamun powder was mixed as per treatments combination and 10% sugar was mixed in it. The prepared lassi was blended with blender for uniform mix and smooth consistency. Then the prepared lassi was stored at 5 °C or at refrigeration temperature until further study.

Consumer acceptability of developed lassi blended with jamun powder

The developed samples were tasted to 100 consumers randomly is given in following table no 4.20 the matters are discussed in following heads.

The actual consumer response to a newly developed jamun powder lassi constitutes an important attribute of its worthiness. In order to elucidate the acceptability of developed product. it was necessary to expose it to the fairly large number of consumers and seek their opinion about the product. A fresh lot of jamun powder lassi was prepared for consumer acceptability. The developed product was tasted by 100 consumers to know their response. The consumer was picked up randomly under various categories i.e. age, health and sex. A questionnaire was provided to the consumers along with the jamun powder lassi.

Overall frequency distribution of consumer's acceptability of the developed lassi

The developed product jamun powder lassi samples were tasted to various consumers is given in following table no 1 is discussed in following head with details.

Table 1: Overall frequency distribution of consumers acceptability of the developed lassi

Acceptability	Number of consumers	Percent (%)
Likedextremely-9	35	35
Likedverymuch-8	42	42
Likedmoderately-7	14	14
Likedslightly-6	09	09
Total	100	100

From the table No.1 the overall frequency distribution of consumers acceptability trial revealed that out of 100 consumers, 35 consumers rated as liked extremely, where as 42, 14 and 09 consumers rated the developed lassi as liked very much, liked moderately and liked slightly respectively where 77 consumers rated the product liked extremely and liked very much acceptability score. None of the consumers rated the product below the acceptable score i.e. 6.0.

Table 2: Frequency distribution of consumers acceptability of developed production the basis of sex group

Acceptability	Male	Percent (%)	Female	Percent (%)
Likedextremely-9	20	20	08	08
Likedverymuch-8	32	32	10	10
Likedmoderately-7	12	12	02	02
Likedslightly-6	15	15	01	01
Total	79	79	21	21

In the above table no. 2 shows that frequency distribution of consumer's acceptability of the jamun powder lassi on the basis of sex group. Out of 100 consumers, prepared product was offered to 79 males and 21female. Among the male consumers 20 rated as liked extremely whereas the 32 and 12 rated as, liked very much and liked moderately respectively. Only 15 male consumers rated the product as like slightly. Among the female consumers 8 rated as liked extremely whereas the 10 and 02 female consumers rated product as the liked very much and liked moderately respectively. Only 01 female consumer rated the products liked slightly

Table 3: Frequency distribution of consumers acceptability of developed product Lassi on the basis of different age groups (Years)

Acceptability	Age Groups(Years)							
	Below20	(%)	20-40	(%)	40-60	(%)	Above60	(%)
Liked extremely-9	04	04	10	10	10	10	04	04
Liked very much-8	09	09	22	22	06	06	03	03
Liked moderately-7	09	09	09	09	02	02	01	01
Liked slightly-6	03	03	07	07	01	01	00	00
Total	25	25	48	48	19	19	08	08

Table 3 shows the frequency distribution of consumers acceptability of the jamun powder lassi on the basis of different age groups (years). Out of 100 consumers the product was offered to 25 consumer below the 20 years age groups, 48 consumer of age group between 20- 40 years .19 consumers of age group between 40-60 years and 08 age group above 60 years among the below. 20 years age groups 04 consumer rated the product liked extremely, whereas 9 and only 9 consumers rated the products, liked very much and liked moderately respectively. And only 3 consumers rated

the product as slightly. Among the age group of 40-60 years consumers 10 consumers rated product liked extremely whereas the 06 and 02 consumer rated the product as liked very much and liked moderately respectively and only 01 rated the product as liked slightly.

Among the above 60 years age groups 04 consumers rated the product liked extremely whereas the 03 and 01 rated the product as liked very much and liked moderately respectively and none of above the consumer product liked slightly. It is concluded that the product is very much liked by the consumers above the age group of above 20 years as compared to consumers of the age group of below 20 years.

Table 4: Frequency distribution of consumers acceptability of the developed Lassi on the basis of health group

Acceptability	Normal	(%)	Diabetic	(%)	Heart Disease	(%)	Obese	(%)
Liked extremely	30	30	12	12	06	06	04	04
Liked very much	18	18	04	04	04	04	06	06
Liked moderately	07	07	01	01	02	02	03	03
Liked slightly	02	02	00	00	00	00	01	01
Total	57	57	17	17	12	12	14	14

Table 4, Shows that the frequency distribution consumers acceptability of jamun powder lassi on the basis of different health groups. Out of 100 consumers the prepared product was offered to 57 consumers of normal health group 17 consumers of diabetic group 12 consumers suffering from heart disease and 14 obese group. Among the normal health group out of 57, 30 consumers rated the product liked extremely whereas the 18 and 07 rated the product liked very much and like moderately respectively and 2 rated liked slightly. Among the 17 diabetic group consumers rated the product as, liked extremely 12 like very much and liked moderately 04 and 01 respectively. No any consumer of diabetic group rated the product as, liked slightly. Among the consumer suffering from heart disease out of 12 consumers, 6 rated the product liked extremely whereas 4 and 2 rated the product liked very much and liked moderately respectively and no any consumer from heart disease rated the product as liked slightly.

Among the obese groups 4 consumer rated the product as liked extremely whereas the 6 and 3 rated the product as liked very much and like moderately respectively. One of the consumers from obese group rated the product as liked slightly. It is concluded that out 43 consumer suffering from diabetic, heart diseases and obesity.

From the consumer response trial is quite logical to conclude that the jamun powder lassi received wide acceptance by all group of consumers specially those consumers suffering from various diseases like diabetes, obesity and heart related problems. It is believed that the developed lassi blended with jamun powder shall surely attract a very wide market acceptance in future.

References

1. Bhowmik D, Gopinath, Kumar P, Duraivel S, Aravind G, Kumar SPK. Traditional and medicinal uses of Indian blackberry. Journal of Pharmacogony and Phytochemistry. 2013;1(5):36-40.
2. Gupta SK, Kulkarni S. Recent technological advavances in milk-based beverages. Indian Dairyman. 1983;35(1):593-601.
3. Mule MS, Jadhav SR, Kadam SS, Dandekar VS, Ramod SS. Manufacturing technology and production cost of low fat lassi preapared by incorporation of lemon grass (*Cymbopogon citratus* L.) extract. Journal of Pharmacognosy and Phytochemistry. NDDB; c2018.
4. Mule SM, Jadhav SR, Kadam SS. Low fat lassi prepared by incorporation of lemon grass (*Cymbopogon citratus* L.) extract. Asian journal of Dairy and Food Research. 2018;37(1):22-25.
5. Sadawarte PD, Pujari KH, Sonawane SK, Arya SS. Potential food application and health benefit of jambhul. The Indian Journal of Nutrition and Ditetics. 2015;53(3):343-352.
6. Singh CS, Paswan VK. Process optimization for jamun enriched shrikhand. International Journal of Current Microbiology and Applied Science. 2015;4(12):73-81.
7. Newkome GR, Yao Z, Baker GR, Gupta VK. Micelles. Part 1. Cascade molecules: a new approach to micelles. A [27]-arborol. The Journal of Organic Chemistry. 1985 May;50(11):2003-2004.