

THE COMPARISON OF THE DRY FACIAL SKIN SMOOTHNESS RESULT BETWEEN THE ONE USING AMBON BANANA MIXED YELLOW FLOUR MASK AND THE ONE USING AMBON BANANA MIXED WHITE CORN FLOUR MASK

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ABSTRACT

The aim of this research is to find out which treatment is better between the one using Ambon banana mixed yellow flour mask and the one using Ambon banana mixed white corn flour mask toward dry facial skin smoothness. The samples numbers are 20 people, with twice a week treatment for month duration, in total twelve treatments. The population of this research is 30 – 35 years old women with dry facial skin.

The method in this research is an experiment which uses pre-test and post-test. The samples are divided into two group; experiment group I using Ambon banana mixed yellow flour mask and experiment group II using Ambon banana mixed white corn flour mask. The measurement instrument which is used is Wood's Lamp and then, data in entered in the research instrument.

After the data is obtained, judge's test and Kendall concordance test are done. To examine its validity, the instrument which is used and the items in the assessment format is given the reliability before by using Alpha Cronbarch and content validity, then analysis of requirement test by using Normality test and Population Variance Homogeneity test. Next, hypothesis test result with test t average two, one side shows $t_{count} = 2.50$ on significance rate $(\alpha) = 0.05$ and $dk = 18$. This means the treatment using Ambon banana mixed yellow flour mask makes the skin smoother than the treatment using Ambon banana mixed white corn flour mask. The average smoothness score for Ambon banana mixed yellow flour mask is 8.700 and Ambon banana mixed white corn flour mask is 5.900. It is expected that this research result can be applied well, especially for the students of cosmetology and the society for general.

Keywords : Dry facial skin smoothness, ambon banana, yellow and white Flour.

1. INTRODUCTION

Skin is one of the most important tools of the human body, and is located the most outward that protects the inner parts of the body. According to Kanisius (2009: 4), the skin is the largest and most visible organ of the body, this organ has important functions such as protecting the internal organs and regulate body temperature.

Everyone has different skin types. Based on the opinion of Rostamailis (2005: 20) that skin types can be grouped into several types with the following characteristics:

(1) normal skin types, with non-greasy characteristics, can turn dry, fresh, healthy looking, and cosmetic easily attached to the skin. (2) oily skin types characterize

large pores, skin looks shiny, often overgrown with pimples and blackheads. (3) dry skin type skin characteristics appear dull / not bright, skin pores look smaller and cosmetic rather difficult to blend with skin. (4) combination skin characteristics seen two types of skin on the nose, chin and forehead oily and other dry parts (T region). Of the skin types described above, one dry skin is one of the problematic skin. Many women complain of dry skin because one of the causes is because the skin will look dull and scaly. Regular maintenance is required for smooth and healthy skin, both inside and outside treatment.

Treatment of dalarn is consuming foods containing nutrients, while the treatment from the outside is by way of cleaning, refreshment, fertilization, sorting, firming, protection. The judge (1998: 5) states that "treatment can be done by intensive cleansing, evaporation, sorting, fertilizing, masking and moisturizing". Skin should be treated to stay healthy and avoid skin disorders that may result in reduced facial attractiveness. Skin disorders vary for example: skin irritation, acne, black spots on the skin, skin infections by germs, fungi, viruses, dry skin and scaly Skin disorders caused by external factors such as sunlight, air, dust, air-conditioned influences, while factors from within, among other things, age, hormonal balance changes, food effects and stress.

Tilaar (2007: 15) argues that "dry skin is smooth, brittle and dry skin with the condition on the cheek, the bottom is less flexible, the pores are not visible clearly due to oil production shortages of sebaceous glands (oil). Dry skin for women aged over 35 years is a problematic skin, because at that age sebaceous glands are not functioning properly. Signs of dry skin that appears dry skin, scaly, visible pore holes, skin epidermis thin, sensitive and quickly wrinkled. Facial skin conditions, especially women aged 30-35 years is the absorption of skin has begun to decrease, the muscles of the face begin to loose, and sebaceous glands do not produce sebum enough for the skin.

Based on observations that the authors do in the area of North Bekasi in women aged over 35 years, 20 people say have dry skin. They feel disturbed by dry skin conditions such as dull skin, rough, sagging so they lack confidence. To deal with dry skin facial skin care is required by using a mask of natural ingredients.

According to Judge (1998: 17), cosmetics according to its use is divided into two namely (1) cosmetics to maintain, maintain and maintain skin condition, 2) cosmetics to beautify the face, as cosmetics cosmetics. Cosmetics according to the material of manufacture is divided into two, namely cosmetic modern and traditional cosmetics. Modern cosmetics are made from chemicals and in modern scientific, while traditional cosmetics are made from natural ingredients. In beauty salons are still rare that use traditional cosmetics may be due to lack of knowledge about the use of traditional cosmetics.

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Facial skin conditions, especially women aged 30-35 years is the absorption of skin has begun to decrease, the muscles of the face begin to loose, and sebaceous glands do not produce sebum enough for the skin. This causes facial skin to dry, rough and sagging (Sulastomo: 129. For that, facial skin care is required by using a mask of natural ingredients that are effective to smooth dry facial skin, natural ingredients such as fruit, starch, honey and milk can be used as a mask. Fruits that can be used for dry skin types include bananas, potatoes, corn and manga. Buon banana fruit is estimated to be a mask, because it has a soft meat and contains protein, fat, carbohydrates, vitamins A and vitamin C so it can be used to, smooth the skin dry face, but less viscous power, so that when the mask dries up the crack will occur and there is a change of color Therefore, it needs to be added flour.

Flour which has vitamin for dry facial skin is corn flour. Corn flour is made from corn which is processed into flour. Corn flour can also be used as a thickener mask. The yellow corn flour is made from maize which is ripe and yellow seeds while white corn flour is made from corn which is ripe white. Corn yellow and white seeds, easily available in the market. Yellow Corn Flour and White Corn Flour contain substances that are protein, fat, carbohydrate, vitamin A and vitamin C to smooth dry facial skin, which is not owned by other types of flour. Yellow corn flour and white corn flour have almost the same substance. Based on research conducted by Nining Riana Sari (2015) that mask of corn and olive oil is useful to smooth dry skin. The formulation of this research problem is: Which is more refine dry facial skin between using a mixture of banana mixture Amber with yellow corn flour and mask mixing banana ambon with white corn flour?

Ambon bananas contain substances that are useful for the smoothness of dry facial skin of protein, fat, carbohydrates, vitamin A and vitamin C. For more details can be seen in table 1 on the Chemical Composition of bananas ambon issued by the Directorate of Nutrition Department of Health of the Republic of Indonesia.

In addition to banana ambon, mask that can be used for dry skin is yellow corn flour. Yellow corn flour is derived from any type of corn and yellow seeds, Corn contains a substance similar to the banana ambon and can smooth the skin dry face. Corn belongs to the Gramineae family (grass → grass). Name in Latin *Zea Mays* Lim. *Zea* genus and *Mays* species.

Corn is thought to come from the Americas and has been planted for thousands of years. In Indonesia corn has been known for approximately 400 years since it was first brought by the Portuguese and Spanish.

Table 1. Chemical Composition of Ambon Banana Mature (every 100 grams of fruit flesh)

TOTAL	JUMLAH
Calories (kcal)	99
Protein (gr)	1,2
Fat (gr)	0.2
Carbohydrate (gr)	25,8
Calcium (mg)	8
Phosphorus (mg)	28
Iron (mg)	0,5
Vitamin A (SI)	146
Vitamin B (mg)	0,08
Vitamin C (mg)	3
Water (gr)	72,0

(List of Bahan Food Composition), DirektoratGizi MOH RI, 1998

According to Suprpto Hs, based on snapped seeds, maize in Indonesia can be classified into: "Type of horse teeth, pearl type, half pearl type, sweet type, and pop type Corn type of kernel-shaped teeth, has large cobs and seeds Slightly planted in Indonesia, less resistant to pests, pearl seed type, seed shape slightly rounded, pest-resistant, half-pearl seed type, slightly rounded round grain, this type is not resistant to pests, sweet seed type is still less popular in Indonesia and is known as sweet corn, seed type is popcorn, small seed shape, slightly tapered.

- a. Corn kernels contain carbohydrates. Flour or starch contained in corn flour is very useful, to smooth the skin. B. Dzulkarnain. and D. Wahjoedin in the Mirror of Medicine magazine stated that: Flour and other natural ingredients contain starchable starch; Fine grain powders can mask the pores, giving skin a smoother effect.
- b. When applied with massage then this flour can cleanse the skin
- c. Starch-shaped starch can be a carrier or a filler of traditional cosmetic ingredients because when mixed with other ingredients does not cause a reaction.

Therefore, corn seeds that can be used as masks should be processed in the form of flour, because fine grain powder can cover the pores of the facial skin perfectly, so that the skin temperature increases and blood circulation smooth and the function of skin glands increases. In addition, starch in the form of flour can remove dirt and cells that have died and can tighten the skin of the face.

In addition, corn flour can be used as a thickener in a mask. The occurrence of thickening is caused because the flour has the ability to absorb water so that the flour grains become larger. Based on the color of the seeds divided into three corns are yellow, white and mixed. Yellow corn can be processed into yellow corn flour. Yellow corn flour has a higher vitamin A content than white corn flour. As Cornucopia points out about corn as follows: "The yellow corn seeds contain higher vitamin A than the white colored corn kernels."

**Table 2. Yellow Starch Flour Chemical Composition
(every 100 grams)**

ZAT-ZAT	JUMLAH
Protein (gr)	9,8
Fat (gr)	7,2
Carbohydrate (gr)	88,2
Calcium (mg)	30
Fosfor (mg)	520
Iron (mg)	2,1
Vitamin A (SI)	13
Vitamin B (mg)	0,45
Vitamin C (mg)	3

Mula Tama Lab, 1998

**Table 3. Chemical Composition of White Corn Flour
(every 100 grams)**

ZAT-ZAT	JUMLAH
Protein (gr)	5,8
Fat (gr)	4,6
Carbohydrate (gr)	75,4
Calcium (mg)	5
Fosfor (mg)	250
Iron (mg)	2,1
Vitamin A (SI)	-
Vitamin B (mg)	0,17
Vitamin C (mg)	-

Mula Tama Lab, 1998

2. METHODS

The objective to be achieved from this research is to know the result of Face Smooth Skin Among Using Ambon Banana Mixing Mask With Yellow Corn Flour and Ambon Banana Mixing Mask With White Corn Flour.

2 1 Place and Time of Research

The study was conducted at the Nancy salon located on the East Kali Baru road no. 3, TanjungPriok, North Jakarta. Beginning in December 1998 - January 1999.

2 2 Research Methods

This research used experimental method with initial test pattern → treatment → final test → research result. Experimental characteristics are experimental research done by manipulating and controlling the free variable and observing its effect on the dependent variable to see the difference according to manipulate the free variable.

2 3 Research Design

The sample in the study was divided into two groups, each group consisting of a number of subjects taken in a particular population grouped at random. Each group consists of 10 women aged 30-35 years of dry skin face. Subjects in each group were treated equally twice a week for one

month. The total number of 12 treatments, then both groups are treated equally.

2 4 Data Retrieval Technique

The data obtained by measuring the facial skin that has been treated with Wood's Lamp. The data retrieval procedure is as follows:

- a. Categorize the sample into two groups namely, group I by using mask mixture of banana ambon with yellow corn flour and group II using mask mixing banana ambon with white corn flour.
- b. Conduct initial tests on both groups, to provide assessment by three judges, with figures on the face of the client.
- c. Giving each of the same treatment groups twice a week for one month (12 treatments)
- d. Conduct a final test in both groups, after treatment in order to know the condition of facial skin.
- e. Calculates face skin smoothness value by means of final test scores minus initial test scores for each group.
- f. Provide statistical tests in accordance with the design.

2 5 Research Hypothesis

H₀: $\mu_1 = \mu_2$

H₁: $\mu_1 \neq \mu_2$

Information :

μ_1 : the average value of the population using an amon banana mixing mask with yellow corn flour

μ_2 : the average value of the population using a mixture of ambon banana mixed with white corn flour

2 6 Hypothesis to be tested

H₀ : Treatment using an ammonia banana mixing mask with yellow corn flour does not further refine dry facial skin from using a mixture of ambon banana with white corn flour.

Hypothesis: Treatment using an ammonia banana mixing mask with yellow corn flour further refines dry facial skin from using a mixture of ambon banana mix with white corn flour.

2 7 Data Analysis Technique

To test the hypotheses that have been formulated in this study, previously tested the requirements of the analysis first with the normality test and homogeneity test. Normality test to determine whether samples taken normal or not distributed in this test used Lilliefors test. After the test of normality is fulfilled then held homogeneity test to test the similarity of two variance, that is by formula

$$F_h = \frac{(S_2)^2}{(S_1)^2}$$

Keterangan :

$(S_2)^2$ = Variansbiggest

$(S_1)^2$ = Variansgreatest

Based on the results of testing data analysis requirements. Derived from the normal and homogeneous population hence to analyze the data used t-test for two-averaged equations with the following formula:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S \sqrt{\left(\frac{1}{n_1}\right) + \left(\frac{1}{n_2}\right)}}$$

Keterangan :

t = t count

\bar{X}_1 = dry facial skin using a mixture of banana ambon and yellow corn flour average value

\bar{X}_2 = dry facial skin using a mixture of banana ambon with white corn flour average value

S = Standard deviation

n_1 = Number of sample group 1

n_2 = Number of sample group 2

3. RESULTS AND DISCUSSION

3.1. Data Description

From the experimental results, the average dryness skin face value can be seen in table 4 and table 5 as follows

**Tabel 4. List of Smoothness of Experiment Group
Ambon Banana Mixing Mask with Yellow Corn Flour**

No	SAMPEL	EXCELLENT VALUE
1.	A	9
2.	B	8
3.	C	3
4.	D	9
5.	E	11
6.	F	8
7.	G	7
8.	H	9
9.	I	9
10.	J	14
smoothing values		$\sum X_1 = 87$
Average value		$\bar{X}_1 = 8,700$
Score of samples		$n = 10$
Standard deviation		$S_1 = 2,790$

**Tabel 5. List of Smoothness of Experiment Group
Ambon Banana Mixing Mask with white Corn Flour**

No	SAMPEL	EXCELLENT VALUE
1.	A	5
2.	B	4
3.	C	6
4.	D	5
5.	E	5
6.	F	8
7.	G	5
8.	H	3
9.	I	11
10.	J	7

smoothing values	$\sum X_2 = 59$
Average value	$X_2 = 5,900$
Score of samples	$n = 10$
Standard deviation	$S_2 = 2,280$

From table 4 and 5 data can be seen the difference between experiment group I and experiment group II. In the experimental mask mixing group of Amon banana with yellow corn flour, the highest dry face skin smoothness value was 14, the lowest value was 3, standard group deviation 2,790 while the dry facial skin dryness value in the experiment of mixing mixture of banana ambon with the highest cornflour of 11 , the lowest value of 3, standard deviation of group 2,280.

This means that the use of a mask mixture of banana ambon with yellow corn flour further refines dry facial skin from a mixture of ambon banana mix with white corn flour. To know more clearly the existence of influence between experiment group I that is mixing amok banana mixture with yellow corn flour and group II that is mask mixing banana ambon with white corn flour, then tested statistically.

3.2. Testing Requirements Analysis

Testing requirements analysis is done by normality test and homogeneity test of population variance. For the normality test is done by using the Liliefors test. The result of normality test in experiment group I is mask mixing of ambon banana with yellow corn flour, showing $= Lo < Ltabel$, that is: $0,256 < 0,258$. This means that the sample in the experimental group of ambon banana mask with yellow corn flour is normally distributed, while for the mixture group of banana ambon with white corn flour shows $Lo < Ltabel$ is $0,252 < 0,258$. This means that the samples in the experimental mixing mask group of banana ambon with white corn flour are also normally distributed.

Homogeneity test was done by group equality test of variance. The result of the test shows that $Fcount$ is in the reception area that is: $Fhitung < Ftabel$ is $1,490 < 3,180$, this means both group of variance from experimental group of mixing amon banana mixture with yellow corn flour and mask mixture of banana ambon with white corn flour is homogeneous.

Tabel 6. Test Results Requirements Analysis

No	Data Type	Result Normality	Calculation Homogeneity	Conclusion
1.	Experimental group of mixing mixture of banana ambon with yellow corn flour	$0,256 < 0,258$	$1,490 < 3,180$	Normal dan homogen
2.	Experimental group of mixing mixture of banana ambon with white corn flour	$0,252 < 0,258$		Normal dan homogen

3.3. Hypothesis Testing

To test the null hypothesis (H_0) using a two-t test average. Based on the calculation, the calculated value of 2,500 while the t table at significant

level (α) = 0.05 with degrees of freedom (dk) = 18, obtained 1.730 because $t_{hitung} > t_{tabel}$ is $2,500 > 1.730$. Then the null hypothesis is rejected so it can be concluded that: An amon banana mixing mask with yellow corn flour further refines dry facial skin than using a mixture of ambon banana mix with white corn flour. Amon banana mixing mash with yellow corn flour contains protein, fat, carbohydrate, vitamin A and vitamin C bigger than mask mixing of ambon banana with white corn flour.

Tabel 7. Test Results Requirements Analysis

Data Type	Result Normality	Calculation Homogeneity	Conclusion
Comparison of facial skin smoothness results between using a mixture of ambon banana with yellow corn flour and a mixture of ambon banana with white corn flour		$T_{hitung} > t_{tabel}$ 2,500 > 1,730	$H_0 =$ rejected This means the result of treatment using a mask mixture of banana ambon with yellow corn flour further refine the dry facial skin from the mixture mask of banana ambon with white corn flour

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