

## THE USE OF PEEL OFF GAMBIER MASKS AND THEIR EFFECT ON BLACKHEADS SKIN CARE

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### Abstract

*Blackheads are one of the abnormalities in the skin that causes the skin to look unclean, there are small white or black bumps on the surface of the skin which are usually in the nostrils or in the nose, so people feel insecure about themselves. This study aims to analyze the effect of using a gambier peel off mask for facial skin care blackheads. This research was conducted using quasi-experimental methods (quasi-experimental) in the form of Non Equivalent Control Group Design. The sample in this study were students who had blackheads facial skin aged between 17-25 years, amounting to 6 people who were divided into 2 groups, 3 people as the experimental group and 3 people as a control group. The research was carried out through the preparation stage, the implementation stage and the assessment stage. The frequency of research carried out 1 x 7 days for 7 treatments. Data analysis techniques using the T test. The results showed that there was an effect of using a gambel peel off mask on facial skin care with blackheads t-test (4,509) > t table (2,179) at a significance level of  $\alpha$  0.05.*

### INTRODUCTION

The skin is an organ located on the outside of the body that functions as a protective body from various adverse influences from the outside, so it needs to be treated so that it is not susceptible to various dangerous diseases, especially on facial skin. Healthy, clean, fresh and well-maintained skin is everyone's dream. To get a healthy and clean skin needs continuous care and in accordance with the type of skin. Not everyone has a normal skin type that does not have a disorder that is a dream for everyone. One type of skin disorder is oily skin which tends to cause skin disorders such as blackheads. Blackheads skin disorders are most commonly found among adolescents and adults who are found on average at the age of 17-25 years (Achroni, 2012).

Blackheads are a beginner form of acne, which is a disorder in the form of small protrusions as a result of blocked oil glands. This disorder usually occurs in areas of the skin that are abundant in the oil glands. This disorder involves the pilosebaceous system and is characterized by palitic hypersecretion, a change in the composition of the palette by germs, specifically propionibacterium acnes. Around the estuary of the hair follicle there is excessive pertukan because of stimulation by the results of the sebum breakdown, so that the estuaries had become narrowed. This means there is the damming of sebum in the hair follicle, form comedones (*blackheads*)(Nelly judges et al; 1999). There are two types of blackheads, namely; a) white comedones (*whiteheads*)and b) black comedones(*blackheads*).

Facial skin that has blackheads is very important to consider by doing continuous treatment. Blackheads are very disturbing someone's appearance because it can

reduce self-confidence. This disorder can be overcome by traditional treatments using both natural ingredients and using modern cosmetics using ingredients that contain chemicals. Both types of cosmetics have advantages and disadvantages. At this time many people have used cosmetics to use natural ingredients for facial skin care. One natural ingredient that can be used for facial treatment of blackheads is to use a gel-shaped gambier mask (*peel off*).

Masks are cosmetics that are used at the end of facial skin care or body skin, after a total cleansing of facial skin care. Masks are used to normalize the condition of open pores to shrink and maintain firmness, cleanliness, health and freshness. The mask is used in the last part of facial skin care because at the end of treatment the pores will expand or open due to removing the blockage in the form of dirt, dust, oil, millium and so forth.

Treatment is the process, method, action, care, recovery (Complete Indonesian Dictionary: 2000: 501). The treatment referred to in this research is treatment using a gel / peel off gambier mask. To get rid of blackheads. However, healing does not mean it will not appear again, because blackheads will always appear when clogged skin pores and excessive oil on the facial skin. Blackheads that have accumulated in the pores are highly recommended for skin care because the skin requires skin care that is carried out continuously so as not to aggravate the condition of blackheads (Suci Rahmawati N.dkk 2017).

Gambir is the sap of leaves and branches of gambier. According to Kasim (2011: 5) gambier is hot water extract from the leaves of gambier plants which is then deposited, drained, printed and dried. Gambier plants, including tropical climate plants, are thought to originate in the Sumatran and Kalimantan regions. General characteristics of the main components of gambier namely catechins and tannins contained in gambier (Gumbira-Sa'id et al, 2009). Catechins (C<sub>15</sub>H<sub>14</sub>O<sub>6</sub>) belong to the pseudotannin type and include antioxidant polyphenols which are soluble in cold alcohol, hot water, as well as glacial acetic acid and acetone. Tannin is a type of compound that belongs to the group ***polyphenol***. These tannin compounds are often found in plants such as: acacia, areca nut, kosambi, tea, mangosteen peel and gambier. Tannins can be astringent, antiseptic and can have anti-bacterial and fungal properties (Bakhtiar, 1991).

Based on the content of the main ingredients contained in gambier, which is the benefit of gambier is the chemical content of gambir that is most widely used are catechins and tannins. Catechin activity as an antibacterial has been used in the cosmetics industry, as an anti-aging drug, anti-acne, skin care, anti-free radical supplement drinks, and as an astringent, and lotion.

Furthermore Anggraini et al. (2013) argued gambier can also be used as an anti-acne gel formulation that is processed from gambier ethyl acetate extract. The same thing Sabarni (2015: 108) also revealed that gambier can be used as a beauty treatment. Among them can help reduce blemishes on the face by using a gambier mask. The results of a study conducted by Suci Rahmawati N et al (2017) found that gambier extract affected the treatment of facial acne prone skin.

Gambel mask in the form of a gel *peel off* is a practical gel mask in use because after drying the mask can be removed immediately and removes the remnants of dirt that stick to the surface of the facial skin (Syarifah et al, 2015). In terms of the effects of preparations in addition to being able to provide effects that are in accordance with the active substances contained therein, masks are *peel off* also very effective in

removing dead skin cells, blackheads, excessive oil, and clogging of pores. The ideal characteristic of a mask *peel off* is that there are no coarse particles, non-toxic, non-irritating and can clean the skin. Able to provide a moist effect on the skin, forming a thin layer of uniform film, giving the effect of tightening the skin, can dry in 5-30 minutes. masks are *Peel off* easy to work on and do not cause pain (Grace, 2015).

gambier masks *Peel off* that will be used in this study are gambier masks that have been processed in the form of gel (*peel off mask*). This gambier mask is produced by Andalas Farma, but has not been widely marketed in the market. Products from gambier material already have permission from the P-IRT Health Service No. 212137101462. This gambier mask *peel-off* has several functions on facial skin, including: preventing acne, reducing acne scars, as a powerful antioxidant, anti-aging and overcoming black spots (blackheads) on facial skin and cleansing acne prone skin.

The purpose of this study was to analyze the effect of the use of gambier masks *peel off* for treatment of facial blackheads, and the specific purpose was to determine the effect of using gambier masks *peel off* on treatment of facial blackheads in the experimental group with a frequency of 1x7 days for 7 treatments by observing the number of blackheads on facial skin.

## RESEARCH METHODS

This research used quasi-experimental methods (*quasi-experimental*) with design (*Non Equivalent Control Group Design*). The object of this research was blackhead blackheads. The population in this study was UNP students aged 17-25 years, having the same criteria. Sampling was taken through technique *purposive sampling* implemented in *volunteer* (volunteer) with a sample size of 6 people. Data collected from this research are primary data obtained directly from the sample. The research data collected were analyzed using descriptive analysis, and using the t-test hypothesis (*independent sample t test* using the SPSS computer-based statistical program version 20.00).

The researchers provided a gambel mask material *peel off* and its supporting devices for each treatment and gave direct treatment to the sample during 56 days. This study was stopped after the results had been seen to be reduced. This aims to see the results of the treatment process until the research is really real. Place

of this research was conducted in the Laboratory of Makeup and Beauty Study Program Department of Makeup and Beauty, Faculty of Tourism and Hospitality, University Negeri Padang.

the procedures in this study was conducted to determine the effect of the use of mask gambir *peel-off* against blackheads facial skin care with several phases: the preparation phase, treatment stage and stages after treatment are described below:

1. **preparation Awa I Includes:** preparation of materials used, preparation of linen used, preparation of equipment used, preparation for implementation of the
2. **Treatment Stage;** do the skin care process blackheadsgambel using a mask peel off
3. **After Treatment (Assessment)**

After being treated, blackheads are observed to measure from the indicators and fill in the assessment sheets that have been made based on the categories that have been set for each indicator. The level of facial blackheads treatment compared to the success rate with the *pretest* and *posttest* in each sample and the processing of the

results of the treatment of facial blackheads treatment through the effect of wearing a gambelmask *peel off*.

Data collection techniques used are observation and documentation. The instrument in this study was in the form of an observation guide to the results of the use of a gambelmask *peel off* for facial treatment of blackheads, namely the amount of blackheads. The assessment category in this study was observed from the number of blackheads with blackhead type (*blackhead*) on facial skin. To test the hypothesis using the t test, before the hypothesis test was performed the analysis requirements were tested to see whether the data were normal and homogeneous for each group.

## RESEARCH RESULTS AND DISCUSSION

The study was conducted in 7 (seven) times the treatment, the cessation of the implementation of the experimental action was carried out based on the development of research results, namely the results of the use of a gambelmask *peel off* which showed the success of the measured indicator.

### **Description of Facial Skin Care Data for Blackheads Without the Use of GambirMasks Peel Off in the Control Group.**

Evaluation of the amount of blackheads that exist on the facial skin of the sample is observed starting from the time the *pretest is* done and the assessment at each time the treatment will be carried out. from the second treatment a week after the first treatment to the seventh treatment.

Description of the results of the study in the research control group that is at the time of the pretest conducted the condition of the number of blackheads was an average score of 2.00 with a fixed category. Then the first treatment is done with an average still at 2.00. Then in the second and third treatment the average becomes 2.33 with the category still the same. Whereas in the fourth treatment the average score became 2.67 with the category slightly reduced. Then in the fifth treatment the average score becomes 2.00 with a fixed category. The treatment of the six scores averaged 2.67 with a slightly reduced category. And finally, in the seventh treatment the average score becomes 2.00 with a fixed category. Then the average score for the control group in the first totreatment seventh was 2.28. Can be seen in the following histogram:

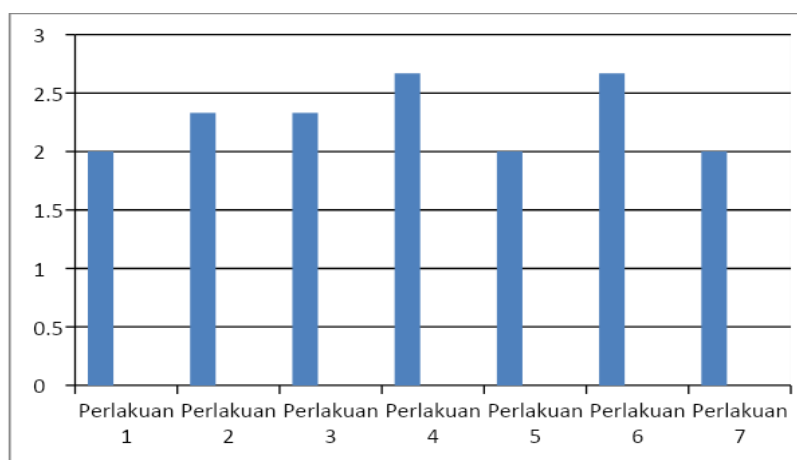


Figure 1. Histogram Research Indicator Amount in Control Group

### **Description of Data The Effect of Use of Gambier Mask Peel Off on Facial Skin Care in Blackheads in the Experiment Group**

Assessment of the number of blackheads in the experimental group in the facial skin of the sample was observed starting from the time a pretest is performed and an evaluation is done every time after the masking action, from the first treatment to the seventh treatment.

At the time of the pretest the condition of the number of blackheads was a score of 2.33 with the category slightly reduced. Then in the second treatment the average score became 3.33 with a slightly reduced category. In the third treatment an average score of 3.00 was obtained with the category still slightly reduced. In the fourth treatment the average score increased to 4.00 with many categories reduced. Furthermore, in the fifth treatment the average score became 3.67 with many categories reduced. In the sixth treatment an average score of 3.67 was obtained with the category of much reduced. And in the seventh treatment still obtained an average score of 3.67 with many categories reduced ..

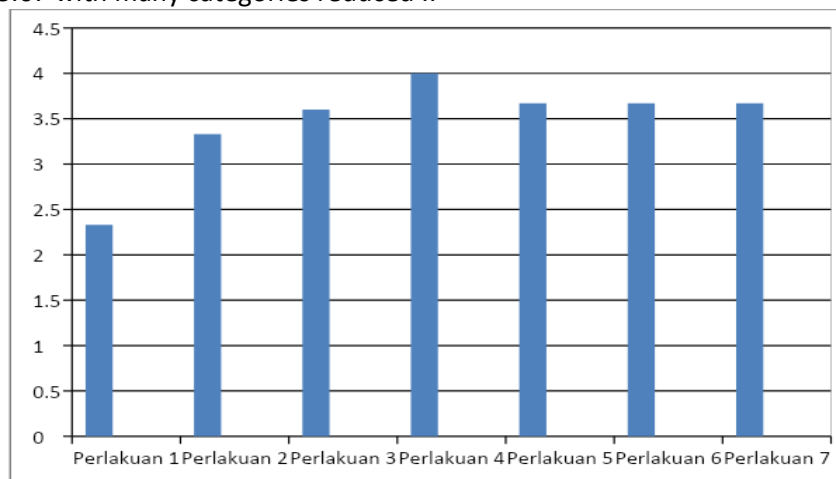


Figure 2. Histogram of Research Results Indicator Number of Experiments in Group

### **The Hypothesis Test**

Comparison of the success of the effect of using Gambiermask *Peel Off* on facial skin care blackheads in the control group (without a gambiermask *peel off*) with the experimental group (with a gambiermask *peel off*). Based on the above data, a t-test statistical analysis is performed which aims to prove whether the hypothesis proposed in the study is acceptable. The results of the t-test analysis can be seen in the table below:

**Table 1** Analysis of the results of the t-test analysis for testing the hypothesis

		Independent Samples Test								
		Levene's Test for Equality of Variance		t-test for Equality of Means						
		F.	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
results	Equal variances assumed	2,549	.136	4,509	12	.001	-3.429	.760	-5.085	-1.772
	Equal variances not assumed			4.509	12	.002	-3.429	.760	-5.154	-1.703

Based on homogeneity testing which has been done it is known that both data have the same variant, therefore the value of t arithmetic used as a reference in hypothesis testing is t arithmetic on Equal variances assumed. The data above shows the results of the study that the value of  $t_{\text{arithmetic}}$  is (4,509), while the value of t table for the provisions of df 12 at a significance level of 0.05 is (2,179). So the price of  $t_{\text{arithmetic}} > t_{\text{table}}$  (4,509 > 2,179). This proves that the hypothesis that there is no difference in influence is rejected with the meaning of the use of gambelmasks *peel off* on the effect on facial skin care blackheads with a significance level of  $\alpha$  0.05.

Based on the analysis that has been done, the facial skin care blackheads without the use of gambelmasks *peel off* in the control group which were assessed in terms of the number of blackheads did not show a significant change towards treatment, namely in the Indicator the number obtained the highest average score of 2 in the Fixed category. In the first treatment until the third treatment is in the fixed category with an average score of 2.00. In the treatment fourth an average score of 2.67 was obtained with a slightly reduced category. Then in the treatment fifth the average score obtained becomes 2.00 with a fixed category. Furthermore, in the sixth treatment an average score of 2.67 was obtained with a slightly reduced category. And in the seventh treatment again an average score of 2.00 was obtained with a fixed category.

This means that after conducting research for 7 treatments without the use of a gambelmask *peel off* for facial skin treatment blackheads, but only cleaning the facial skin using warm water, the results did not change towards treatment with an average score of 2.00 fixed. Means doing treatment by only washing the face using warm water, does not reduce blackheads on facial skin.

Blackheads face treatment by using a gambelmask *peel off* in the experimental group with a frequency of 1x 7 days. Based on the analysis that has been done, facial blackheads treatment with the use of a gambier mask *peel off* with a frequency of use once in 7 days which is assessed in terms of the number of blackheads shows a significant change towards treatment, namely the number indicator obtains the highest average score of 4 with the category much reduced. Increased average score seen in the second treatment with an average score of 3.33 with the category slightly reduced. Then in the third treatment an average score of 3.00 was obtained with the

category still slightly reduced. Whereas in the treatment the fourth average score increased to 4.00 with many categories reduced. Furthermore, from the fifth treatment to the seventh treatment the average score obtained is still in the category of much reduced by an average of 3.67.

This can be interpreted that the treatment of facial blackheads using a gambelmask *peel off* as a facial treatment of blackheads can give a good influence on the treatment. This is in accordance with the opinion of Putri (2016): "Gambier has many benefits as anti-aging, as anti-acne, and to lose weight". Then Syarifah, et al (2015): also revealed "the gel *peel off* mask is a practical gel mask in use because after it is dry it can be removed immediately and removes the remnants of dirt that stick to the surface of the facial skin". Furthermore, Morris (1993): "In terms of the effect of preparations in addition to being able to provide effects that are in accordance with the active substances contained therein, masks are *peel off* also very effective in removing dead skin cells, blackheads, excessive oil and blockages in the pores". Gambir can not only be used for treatment of facial skin blackheads and acne but can also be used for anti-dandruff.

For this reason, it is suggested to respondents to be able to utilize the gambelmask *peel off* in performing facial skin care blackheads, because this mask material does not cause negative impacts or harm to facial skin and can also treat acne prone skin as a result of research from Suci Ramadhani.

## Conclusion

Based on data analysis in CHAPTER IV, the following conclusions are drawn from the research conducted:

1. The effect of the use of gambier masks *peel off* on the treatment of facial blackheads in the control group (without the use of gambelmask *peel off*) after 7 X treatments for 56 days showed only slight changes in the indicators, such as the indicator of the number of blackheads only get an average score of 2.00 in the category fixed.
2. The effect of the use of gambelmask *peel off* on facial skin care blackheads in the experimental group with the use of 1 time in 7 days as much as 7 X treatments for 56 days showed the effect / change in the indicator. As in the indicator the number of blackheads obtained an score average of 4.00 which falls into the category of much reduced.
3. Hypothesis H0 which reads there is no significant difference in effect on the use of gambelmask *peel off* in the two groups on facial skin care blackheads with a significance level of 0.05 (95% confidence level) is rejected with the meaning of using gambier masks *peel off* can reduce blackheads found on facial skin.

## Suggestions

1. For cosmetology and beauty education majors, you can use a gambelmask *peel off* as an input for practice on face skin care courses.
2. Respondents can use a gambelmask *peel off* as an alternative in facial blackheads.
3. For students majoring in cosmetology and beauty education, this research can be an additional knowledge and insight, especially in the field of cosmetics knowledge and its use according to skin conditions.

4. To readers who are involved in the field of beauty, the results of this study can be applied in daily life for themselves and in caring for clients in beauty salons.
5. Further researchers are advised to examine the effect of using agambier mask *peel-off* with an indicator of skin brightness.

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