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HaniAisya Hair Oil

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Abstract: Coconut oil has many nutrients that can help to improve hair problems. The objective of this study is to produce hair oil made from coconut oil mixed with rice water and lemon essential oil which can treat hair problems. The second objective is to see the effect of using hair oil made from coconut oil mixed with rice water and lemon essential oil based on product quality aspects. This study uses a qualitative design. Qualitative data are obtained entirely from the structure interview method. The study sample consists of 20 respondents who have hair problems. The selection of the study sample focuses on the respondents who have damaged hair. Data will be analyzed to see the effects after using HaniAisya hair oil. Research results have shown that HaniAisya Oil could treat hair loss, coarse hair, oily and dried scalp, damaged hair, dandruff and scalp itchiness. Changes on hair could be seen as early as a week after application. Lemon fragrance can attract respondents' interests in using HaniAisya hair oil onto their hair. Positive responses are given in regards to the texture of the produced oil. This innovation has convinced current generation faith on the healthiness of coconut oil that has been forgotten since ages ago. Henceforth, it will raise awareness among the society to use natural ingredients for hair rather than product that are harmful to consumers. It also contributes to the Industri Kecil dan Sederhana (IKS) where it can create employment opportunities for small entrepreneurs because it is produced from natural ingredients found in Malaysia.

Keywords: Coconut oil, Rice water, Lemon essential oil, Hair problem, Hair treatment

1. Introduction

Coconut oil has many benefits for the human body especially for hair and scalp health. Coconut copra is processed to produce coconut oil. Coconut oil is separated into two types which are virgin coconut oil and copra oil [1]. The difference between these two oils is in terms of how the oil is produced. Coconut oil from this research is taken from coconut milk that has been cooked with small flame until it produces oil. Coconut oil obtained from the extraction of coconut milk is easier to produce

when compared to virgin coconut oil. Coconut milk contains protein and essential fats to promote hair growth and prevent hair loss [2].

Coconut oil penetrates into hair shaft and soothes scalp, thus, it is suitable as a treatment medium for scalp and hair loss [3]. However, nutrients from coconut oil that can treat hair complications and scalp is not well known due to its unpleasant smell [4]. It has become a reason on why younger generations are more prone to buying hair treatment products from markets that contain chemicals for their fragrance. It is human nature to be indulged by fragrance. There is research which states that coconut oil is very effective to repair damaged hair like sunflower oil due to its nature to be easily absorbed into hair structure [5]. On the other hand, there is research which states that coconut oil is more effective than mineral and sunflower oil to treat damaged hair and lessen the risk of protein loss in hair [6]. Coconut oil could supply important protein to nurture and repair damaged hair [7].

The hair oil produced in this study is the result of a combination of coconut oil, rice soaking water and lemon essential oil. Soaked rice water has benefits that promote the effectiveness of treating scalp and problematic hair. It has been used in traditional treatments to treat skin and hair [8]. The research made by S. Inamasu et. al discovered that Japanese Women of older generations had used soaked rice water for beauty, treating complications and hair elasticity [9]. Lemon essential oil gives fragrance that refreshes hair. The hair oil produced does not use any chemicals.

Three elements of Garvin's Product Quality Dimension [10] in regards to product quality which are performance, features and aesthetics are used as guidance to produce HaniAisya Hair Oil. This research consists of two objectives. The first objective is to produce oil which is made from coconut oil, soaked rice water and lemon essential oil. The second objective is to identify respondents' perceptions in regards oils for hair complications.

The hair oil produced in this study can treat hair problems such as split ends, hair loss, dry scalp that causes itching and dandruff, also gray hair at an early age. It can also increase hair growth and hair volume.

2. Materials and Methods

2.1 Materials

Materials and apparatus needed to produce HaniAisya hair oil are as follows:

- Coconut milk
- Soaked rice water
- Lemon essential oil
- Wok
- Ladle
- Stove

2.2 Methods

Research on HaniAisya hair oil has to go through two phases which are Development Phase and Evaluation Phase.

2.2.1 HaniAisya hair oil Development Phase

For developmental phase researchers use Five Phase Model Design Thinking process. Some of the phases include emphatize, define, ideate, prototype and test. (Figure 1). It is used to ease the process and effectiveness of the developmental phase.

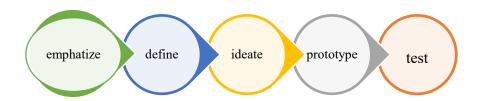


Figure 1: Five phase of design thinking process

Figure 2 shows the process to produce HaniAisya hair oil. Coconut oil obtained from coconut milk that has been mixed with soaked rice water and cooked under low flame. Produce oil will be mixed with lemon essential oil. The oil will be poured into container(s) to ease the consumers to use and apply it onto hair parts and scalp.

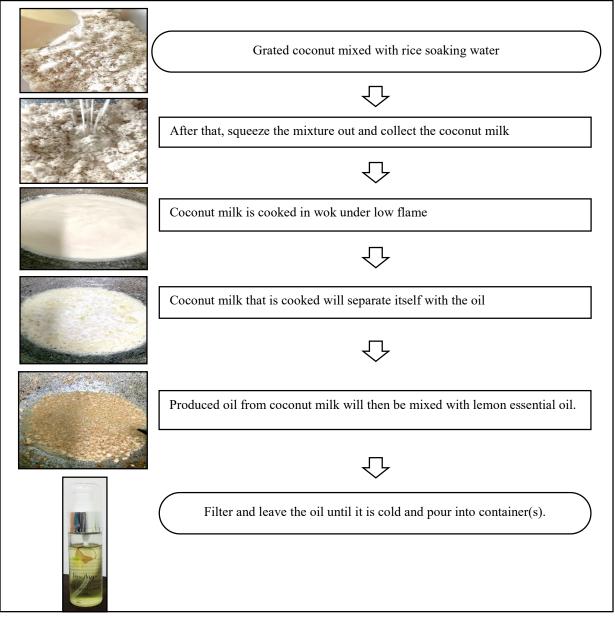


Figure 2: Process to produce HaniAisya hair oil

2.2.2 HaniAisya hair oil Evaluation Phase

This research used qualitative research design. Structured interviewing method is used to collect information. There are 20 respondents that have hair and scalp complications. The interviews focus on identifying hair problems, the source(s) of problems and three elements of Garvin's Product Quality Dimension [10] in regard to product quality which are performance, features and aesthetic. Performance consists of application effects and time period. Features focuses on texture while aesthetic consists of fragrance emits by the oil.

3. Results and Discussion

Research question 1: Could hair oil from the mixture of coconut oil, soaked rice water and lemon essential oil be made?



Figure 3: HaniAisya oil produced from the mixture of coconut oil, soaked rice water and lemon essential oil

Hair oil from the mixture of coconut oil, soak rice water and lemon essential oil can be made as shown in **Figure 3**. The texture is not sticky and emits refreshing fragrance. Upon test runs by researchers, they had found that this oil can treat hair complications such as dry hair, scalp dryness, dandruff, making hair look shiny and soft. Application effects have shown changes in the first week. After the test runs have been made, the hair oil is distributed to 20 respondents with hair complications for tests in one month.

Research question 2: What is the perception of respondents about the hair oil after its applications for hair complication?

Table 1 show types of hair complications that are faced by respondents for this research. Hair loss is the main issue that has the most number of respondents with said complication (16 respondents, 80%). A total of three respondents (15%) experienced dry skin problems. Two respondents (10%) had rough hair problems and two respondents (10%) had dry scalp problems. For the problem of oily scalp, damaged hair and dandruff, each only recorded one respondent (5%) only.

Table 1: Hair complications

Hair complications	Respondents with hair complications, n (%) (N=20)
Hair loss	16 (80)
Oily scalp	1 (5)
Coarse hair	2 (10)
Scalp itchiness	2 (10)
Scalp dryness	3 (15)
Damaged hair	1 (5)
Dandruff	1(5)

Table 2 shows the sources of hair problems among respondents. A total of nine respondents (45%) experienced hair problems caused by diet. Next, a total of four respondents (20%) stated that the reason they experienced hair problems was due to the practice of using shampoo and the incompatibility of the chosen shampoo with their scalp or hair. It can be proven from the interview with respondent (R) as follows;

"My hair is damaged because I like to change shampoos" (R2)

"Shampoo I used not suitable for my scalp" (R12)

In addition, as many as three respondents (15%) stated that the cause of their hair problems is due to stress. A total of two respondents (10%) stated that the cause of damaged hair was the use of hair oil in the market.

Table 2: Sources of hair complications among respondents

Sources of hair complications among respondents	Respondents with hair complications, n (%) (N=20)
Shampoo application	4 (20)
Hair oil	2 (10)
Food consumption	9 (45)
Stress	3 (15)

Based on the findings of the interview after one month of use found in **Table 3**, it is clear that HaniAisya oil can help overcoming the problem of hair loss, which is a total of 15 respondents (75%). A total of nine respondents (45%) stated that their hair texture has become softer. Hair smells good, hair becomes thick, scalp is not dry and hair becomes straight, each recorded a total of two respondents (10%) who stated changes in their hair. Next, for the hair to become shinier, the hair looks fresh, it can treat the itchy scalp and smooth the hair contribute 5% of the respondent who expressed the effect of the change in use on their hair. It can be proven from the interview with respondent (R) as follows;

"Can help reduce hair loss and the itchiness on the scalp is less" (R5)

HaniAisya oil can also replace those from markets as it can be used to style. It can be inferred based on the interview with respondent (R) as follows;

"This hair oil can be used to style my hair" (R7)

Table 3: Effects of using HaniAisya oil

Effects of using HaniAisya oil	Respondents with hair
	complications, n (%)
	(N=20)
Hair loss lessen	15 (75)
Hair texture soften	8 (40)
Hair fragrant	2 (10)
Thick hair	2(10)
Glossy hair	1(5)
Style able hair	1(5)
Scalp is not dried	2 (10)
Coarse hair is repaired	1 (5)
Hair straightens	2 (10)
Hair looks refreshed	1 (5)
Treat itchy scalp	1 (5)
Smoother hair	1(5)

Table 4 shows the time period that is taken to identify the application effects of HaniAisya oil. 10 respondents (50%) have stated that the earliest timestamp for significant changes is in the first week which is followed in two weeks dan three weeks with six respondents (30%) and two respondents (10%) respondents respectively.

Table 4: Time period that is taken to identify the application effects

Time period that is taken to identify the application effects	Respondents with hair complications, n (%) (N=20)
1 week	11 (55)
2 weeks	6 (30)
3 weeks	2 (10)

Table 5 shows the data collection in regards to aesthetic that focuses on the fragrant from HaniAisya oil. Nutrients from the coconut oil that can control hair and scalp get less attention and interest because of its unpleasant smell [4]. HaniAisya oil has successfully innovate hair oil that is made from coconut oil that does not emit unsettling smell. The produced oil has its own uniqueness for its refreshing lemon fragrant. Based on the interview, all respondents holistically gave positive responses in regards to the fragrant emits from HaniAisya oil. Lemon essential oil that is mixed in HaniAisya oil emit refreshing odour. It can be inferred based on the interview with respondent (R) as follows;

"It doesn't smell like coconut, it just smells like lemon" (R6)

Table 5: Esthetic

Esthetic	Respondents with hair
	complications, n (%)
	(N=20)
Fragrant	20 (100)

Table 6 shows respondents' perceptions in regards to the texture of HaniAisya oil. 13 respondents (65%) state that HaniAisya oil is not sticky upon application. The data has also shown that the oil is less oily (3 respondents, 15%) and three respondents (15%) state that it is not oily upon its application on hair. The texture of HaniAisya oil is not sticky which gives comfort to the consumers regardless of time usage (1 respondent, 5%). It is also proven that this hair oil is comfortable for women with hijab and daily routines. It also proves that this oil is comfortable to use by veiled women and suitable for daily routine. It can be inferred based on the interview with respondent (R) as follows;

"Not sticky like other hair oils and less greasy" (R7)

Table 6: Texture

Texture	Respondents with hair
	complications, n (%)
	(N=20)
Not sticky	13 (65)
Easily absorbed into hair structureed	2 (10)
Less oily when it's applied on hair	3 (15)
Hair is not oily upon applying HaniAisya oil	3 (15)
Scalp has refreshing feeling	1 (5)
Soft	1 (5)
Scalp has cold feeling	1 (5)

4. Conclusion

Based on the data collected, it is clearly stated that hair oil that is made from the mixture of coconut oil, soaked rice water and lemon essential oil, is capable to repair damaged hair structure. Some of the hair complications that can be prevented with the application of HaniAisya oil are hair loss is lessen, hair looks more refreshed, hair structure has become softer and straightened, fragrant, and repair scalp structure. The benefits of coconut oil have been forgotten by current generation as they are not convinced with its nutrients. Therefore, through this product innovation, it directly raises current generation's confidence on the benefits of coconut oil that has not been used since ages. HaniAisya oil has high commercial value because it does not require height production cost and nature friendly. HaniAisya uses natural ingredients that can effectively and safely repair hair structure.

Further research should be carried out in regard to alternative natural ingredients such as ginseng, green tea and berry that can be mixed with coconut oil as they are suitable and beneficial for hair. In addition, mixture of soaked rice water and coconut oil in HaniAisya oil has proven that the former can nurture hair structure. Further research about soaked rice water needs to be carried out to identify in details of the nutrients of soaked water rice.

Henceforth, it will create awareness among the society to use natural ingredients for hair rather than product that are harmful to consumers. It also contributes to the Industri Kecil dan Sederhana (IKS) where it can create employment opportunities for small entrepreneurs because it is produced from natural ingredients found in Malaysia.

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