

A Study on the Recognition and Purchasing and Usage Behavior of Mask Pack Type

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마스크팩 타입에 따른 인식 및 구매와 사용 행동에 관한 연구

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Abstract This study was conducted on women in their 20s and 30s living in the Seoul metropolitan area by using questionnaires on the recognition and purchase behavior of mask packs. According to this study, although there is high interest in skin beauty, the recognition of characteristics and distinctions according to mask pack type was found to be insufficient. After using mask packs, 51.5% of those surveyed were satisfied with their efficacy and effectiveness. When using the mask pack, the Sheet type mask pack was discontented with usability, size, Close Adhesion and skin irritation, Hydrogel type is material, sleeping type is content and absorbent, cellulose type pack was found to have the same discomfort with the material as the hydro gel type. Through the results of this study, the possibility of utilization as basic data for mask pack market marketing was confirmed.

Key Words : Hydrogel Type, Mask Park, Purchase Behavior, Sheet Type, Sleeping Type

요 약 본 연구는 수도권에 거주하는 20~30대 여성을 대상으로 마스크팩 인식 및 구매 행동에 대하여 설문지를 이용하여 조사하였다. 본 연구 결과, 연구 대상자들은 피부미용에 대한 관심이 높지만 마스크팩 타입에 따른 특징과 차별성 인식은 미흡한 것으로 조사되었다. 마스크팩을 사용한 후, 조사 대상자들의 51.1%가 효능 효과에 만족한 것으로 조사되었으나, 마스크팩 사용 시 대표적인 불편한 점으로는 시트형 마스크팩은 사용성, 크기, 밀착성 및 피부 자극으로 불만족스러웠으며, 하이드로 겔타입의 소재와 슬리밍 타입은 내용물, 흡수성에 대해 불만족스러운 것으로 확인되었다. 또한, 셀룰로오스 팩과 하이드로겔 타입의 팩은 동일하게 불쾌감을 가지는 것으로 확인되었다. 본 연구 결과를 통하여 마스크팩 시장의 기초 마케팅 자료로서 활용이 가능할 것으로 사료되어 진다.

주제어 : 하이드로겔 타입, 마스크팩, 구매행동, 시트 타입, 슬리핑 타입

1. Introduction

As women's interest in appearance continues to grow around the world, cosmetics are typically used as a necessary means to manage and maintain

beauty. Recently, amid economic growth and busy life, there has been a growing desire to maintain professional management at home. Therefore, effective mask packs with efficacy, effectiveness and simplicity are being developed. As of 2017, a

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high increase rate of production of mask pack products in basic cosmetics products was reported to 50.3% year-on-year[1]. Mask and Pack, a type of cosmetic product, are applicable at the basic cosmetic stage and, in a detailed sense, masks have the meaning of "block, cover, etc. It is used in the U.S. and Europe and means 'paved, covered, cheap'[2]. The mask packs are largely classified into four categories depending on the type: sheet mask packs, hydrogel mask packs, Sleepings mask packs and biocellulose mask packs. For each feature, the first type of mask pack is a type of face sheet, which contains facial features such as makeup water and essence, and removes them after a certain amount of time. It effectively gives moisturization and nutrition to skin and is the most suitable type for modern people who seek ease and ease of use[3]. The second hydrogel mask pack is a mesh with a three-dimensional network structure with a polymeric structure. Since it has a form to trap water molecules and nutrients, it reacts to body temperature when attached to the skin and melts it into the skin to show skin moisturization and efficacy[4,5]. Third, the sleeping pack is the type of sleeping pack, which is usually applied to the face with gel or cream type and then removed without being removed, which is then washed away after sleeping or absorbing. It has the advantage of sleeping at the end of the basic stage or sleeping easily and at night, the mask pack is effective to maintain a moisturizing and smoother skin condition than the following day[3]. Fourth, Biocellulose Mask is a natural bio material made from microbial culture that has various effects on the pack itself, providing an opportunity to select a differentiated functional mask pack[6]. As such, mask packs are the easiest home-care products, which are leading to the expansion of the market and improved technology of mask packs.

Prior studies of mask packs reported so far include study of the characteristics of mask pack

sheets[7], skin moisturizing effect of mask packs using kelp fermentation solution[8], skin improvement effect of mask packs using snail fermentation extract[9], wrinkle improvement effect of facial mask packs containing onion peel extract[10], usability of mask packs using marine element[11], and manufacture of keitosan properties. Research is mainly conducted on the development of mask packs, and there is a lack of research on consumers' preferences and usage regarding the consumer awareness and purchasing behavior of mask packs, which are now diversifying. Accordingly, in this study, the basic information on preferences and recognition according to mask pack type was analyzed and used as a variety of basic data for product development in mask pack market, looking at the consumers' perception and purchasing behavior of mask pack that is showing continuous growth.

2. Research Method and Data Collection

2.1 Research subjects and data collection

The study surveyed women in their 20s and 30s who had experience using mask packs. The survey period was conducted from 25 October to 12 November 2018 and a total of 225 copies were used as final statistical analysis.

2.2 Measuring tool

In this study, questionnaires configured for research purposes were used. The questionnaire consisted of 6 general specific questions, 5 questions for recognition of use of mask packs, 5 questions for side effects after use of mask packs, 16 questions for purchase and use of mask packs, 2 questions for categorized by mask pack type and advantages, 8 questions for non-conformity experience by mask pack type, and 42 questions for total.

3. Results

3.1 General Characteristics

The typical characteristics of this study are shown in Table 1. As a result, 225 women (100%) were surveyed and 186 people (82.6%) aged 20 to 23 were found to have the most age distribution. Twenty-eight people aged 24 to 27 were surveyed (12.4%), four people aged 32 to 35 (1.7%), and three people aged 36 to 39 (1.3%). It was found that 166

students (73.7%) were the most successful university students. According to the survey, 215 unmarried people (95.5%) and 10 married people (4.4%). Students were 173 (76.8%), 20 office workers (8.8%), sales, 15 service workers (6.6%), three housewives (1.3%), business, two self-employed workers (0.8%), and 12 others (5.3%). The highest monthly income level was 169 people, or 75.1 percent, under 1 million won. In addition, 96 people (42.6%) were found to be very interested in beauty.

Table 1. General characteristic of the study subjects

	Item	N	%
Age	20 to 23	186	82.6
	24 to 27	28	12.4
	28 to 31	4	1.7
	32 to 35	4	1.7
	36 to 39	3	1.3
Final Education	High School Graduation	10	4.4
	University Student	166	73.7
	University Graduation	43	19.1
	Postgraduate Student	3	1.3
	Graduate School Graduation	3	1.3
Marriage	Married	10	4.4
	Single	215	95.5
Job	Student	173	76.8
	Housewife	3	1.3
	Sales and Service	15	6.6
	Business	2	0.8
	Office Work	20	8.8
	Other	12	5.3
Monthly Income	less than one million won	169	75.1
	Less than 1 to 2 million won	37	16.4
	Less than two to three million won	16	7.1
	Less than 3 to 4 million won	2	0.8
	over 4 million won	1	0.4
A Degree of Interest in Skin Beauty	Be Very Interested	96	42.6
	Have Little Interest	82	36.4
	Normal	35	15.5
	Have No Interested	12	5.3
	Never Interested	0	0
Total		225	100

3.2 Recognizing the use of Mask Packs

The results of the use recognition survey on mask packs of the participants in this study are shown in Table 2. Results The skin types of the study subjects were found to be 102 (45.3%) composite skin, the largest number. When using mask packs, 142 (63.1%) were found to be the highest in terms of whether mask packs are helpful

to the skin, and the most recognized that mask packs are slightly beneficial to skin care. The preferred types of sheet for those surveyed were sheet type 95 (42.2%) and hydrogel type 48 (21.3%). I don't know about the preferred sheet among respondents even though I've used a mask pack Results of the survey, which showed a low level of awareness of the types of Sheet for 42 (18.6%) and

9 respondents (4%), were also found. A positive effect on the skin after using a mask pack was that the skin was moistened and softened, with 136 respondents (60.4%). In addition to moisturizing, which is the basic function of mask packs, 109 people (48.4 percent), 36 people (16%) of sebum Care and Pore Tightening, 30 people (13.3%) of skin

Whitening and Tone Improvement, 28 people (12.4%) of intensive nutrition, 10 people improving wrinkles and strengthening elasticity (4.4%) and 12 others (5.3%). It has been confirmed that the functions desired by the subjects are fast sedation and bedding, in addition to moisturizing.

Table 2. Recognition of Usage for Mask Packs

	Item	N	%
Skin Type	Normal Skin	22	9.7
	Composite Skin	102	45.3
	Dry Skin	49	21.7
	Oily Skin (Acne Skin)	39	17.3
	Sensitive Skin	13	5.7
Degree of Help to the Skin	Very Much so	36	16
	A little bit so	142	63.1
	Be Common	37	16.4
	Be a Little Bit	9	4
	It's Not Very	1	0.4
Types of Preferred mask packs	Sheet Type	95	42.2
	Hydrogel Type	48	21.3
	Sleeping Type	25	11.1
	I Don't Understand	42	18.6
	Not Applicable	6	2.6
	No Response	9	4
Positive Effects on Skin After Use of mask packs	Moisturizing and Softening of Skin	136	60.4
	Clear and Brighten the Skin	14	6.2
	Skin Elasticity	14	6.2
	Pore Care and Skin Calm	39	17.3
	Other	22	9.7
	Skin Calm and Skin Soothing	109	48.4
The Most Important Effect Other Than Moisturizing Function	Skin Whitening and Tone Improvement	30	13.3
	Skin Crease and Elasticity	10	4.4
	Sebum Care and Pore Tightening	36	16
	Intensive Nourishment Supply	28	12.4
	I Don't Understand	12	5.3

3.3 Investigate the adverse effect of using Mask Packs on the study subjects

The results of the study on side effects after the use of mask packs in this study are in Table 3. The results showed that 85 people (37.7%) experienced side effects after using the mask pack, and 140 people (62.2%) did not experience the side effects.

More users were found not to experience side effects. Among the symptoms of experiencing side effects, 35 respondents (15.5%) were found to be tingling, itching, and farsighted. These results were found to be similar to those of the previous study, which showed itching, red spots, hives, and rash phases[12]. The survey found that 89 respondents

(39.5%) were the most likely to think about side effects because of problems with materials or content. In addition, 212 (94.2%) were found to have been overwhelmingly high in response to side effects. Pre-research shows that there are many cases of neglect[3] and that active practice of receiving treatment in a hospital[13] is demonstrated. This is seen as people's increasing interest in skin

care in modern society to find and manage ways to deal with side effects. An investigation into the use of expired packs found that 181 people (80.4%) did not have any experience with most of them, but it was found that many did not know whether they had expired, and the results of this study were found to lack awareness of the use of mask packs used for one-time use.

Table 3. Investigate Side Effects After Using Mask Packs

Item		N	%
Side Effect Experience	Yes	85	37.7
	No	140	62.2
Side Effect Symptom	Prickle, Tickles, Pungent	35	15.5
	Redness of skin (redness)	17	7.5
	Skin Edema	2	0.8
	Skin Inflammation (Acne)	33	14.6
	Other	138	61.3
Reasons for Side Effect	No Cleansing	3	1.3
	Materials and Contents	89	39.5
	Skin Strain	10	4.4
	Problems of Manufacturing Process or Expiration Date	1	0.4
	I Don't Know Why	122	54.2
How to Deal with Side Effects	Contact Consumer Counseling Office	0	0
	Contact the Place Where the Product was Purchased	1	0.4
	Pharmacy, Treatment in a Hospital	12	5.3
	Post on an Internet site	0	0
	Left as It Is	212	94.2
Reason for Using mask pack Past Expiration Date	I Didn't Want to Throw it Away	11	4.8
	On the Skin Will be Ok	7	3.1
	I Don't Know If There's a Time Limit	18	8
	I Don't Want to Check It Out	8	3.5
	No Experience Used	181	80.4

3.4 Actual status of Mask Pack purchase behavior of the study participants

The results of the survey on the purchase of mask packs by the participants in this study are shown in Table 4. According to the results, 123 people (54.6%) were found to have the highest average monthly purchase cost of cosmetics between 10,000 won and 50,000 won. The average monthly cost of purchasing mask packs was 153, or 68 percent, according to the survey. The number of places where mask packs were purchased was overwhelmingly high among 177 road shops (78.6%), which showed a tendency for consumers to purchase them in places where they could easily access their hands. Information on mask packs was found to be obtained from the Internet, mobile 136

people (60%) and most people from the Internet and mobile devices, and information was obtained from the Internet and mobile devices and purchased from road shops. In addition, the most important thing for those surveyed when purchasing mask packs was 125 (55.5%), indicating that the effects of use were the most important for many. The need for mask packs was when 87 people (38.6%) felt they had skin problems. It was found that 163 people (72.4%) were satisfied with the price of mask packs purchased by most of those surveyed. Among mask pack sheets, the following sheets were examined: 73 hydrogel type (32.4%), 59 cellulose type (26.2%), 58 Sleeping type (25.7%), and 25 sheet type (11.1%).

Table 4. Study on Purchase Behavior of Mask Pack

	Item	N	%
Monthly Average Purchase Cost of Cosmetics	10,000 won to less than 50,000 won	123	54.6
	50,000 won to less than 100,000 won	74	32.8
	100,000 won to less than 150,000 won	17	7.5
	Less than 150,000 to 200,000 won	4	1.7
	over 200,000 won	3	1.3
	Other	4	1.7
Monthly Average Purchase Cost of mask pack	less than ten thousand won	153	68
	10,000 won to less than 50,000 won	66	29.3
	50,000 won to less than 100,000 won	2	0.8
	100,000 won to less than 150,000 won	0	0
	over 150,000 won	0	0
	No Response	4	1.7
Where to Buy mask pack	Department Store Brand and Official Homepage	9	4
	Online Market	19	8.4
	Road Shop	177	78.6
	Esthetic Shop	2	0.8
	Other	18	8
Information About mask pack	Internet and Mobile	136	60.4
	TV Advertisement	4	1.7
	Cosmetic Counter	16	7.1
	Recommendations From People Around You	57	25.3
	Other	12	5.3
Importance of Purchase of mask pack	Price	21	9.3
	Ingredient	59	26.2
	Effect	125	55.5
	Texture	7	3.1
	Brand	8	3.5
	Other	5	2.2
The Need for mask pack	Feel Like There's a Problem with the Skin	87	38.6
	An Important Business Deadline or Special Day	72	32
	Tired or Resting Time	53	23.5
	Recommendation of People's Use	2	0.8
	Other	11	4.8
Price and Satisfaction of mask pack	Yes	163	72.4
	No	57	25.3
	No Response	5	2.2
mask pack Type You Want to Try	Sheet Type	25	11.1
	Hydrogel Type	73	32.4
	Sleeping Type	58	25.7
	Cellulose Type	59	26.2
	Other	10	4.4

3.5 Behavior of Mask Packs in the study participants

The results of a survey on the use of mask packs by the participants in this study are shown in Table 5. It was found that the survey participants were satisfied with the efficacy and effectiveness after using the mask pack, 116 people (51.5%), with high

satisfaction after use. Before using the mask pack, 88 people (39.1%) answered the most, and 47 (20.8%) rarely read. It was confirmed that 160 people (71.1%) used mask packs before going to bed, and 52 people (23.1%) used the mask packs in the evening. The attachment time of mask packs was the highest for 159 people (70.6%) less than 10 to 20 minutes. The number of mask packs in use

was 110 (48.8%) after skin toner use, and 137 (60.8%) once a week to a month. After using the mask pack, skin care did nothing, with 117 or 52

percent, the highest. After purchasing the mask packs, 134 people (59.5%) were stored in refrigerators (including cosmetics refrigerators).

Table 5. Study on the Use Behavior of Mask Pack

Item	N	%	
Effectiveness and Effectiveness Satisfaction	Full Satisfaction	15	6.6
	Satisfaction	116	51.5
	Normal	76	33.7
	Unsatisfactory	5	2.2
	Very Unsatisfactory	2	0.8
	Other	11	4.8
Do You Read and Use the Manual?	I Always Read It	46	20.4
	I read from time to time	88	39.1
	Normal	22	9.7
	I Rarely Read	47	20.8
	I Don't Read At All	14	6.2
	Other	8	3.5
mask pack Usage Time	When I Woke Up	3	1.3
	Morning Time	2	0.8
	Afternoon Time	0	0
	Dinner	52	23.1
	Before Going to Bed	160	71.1
	Other	8	3.5
Time to Attach to mask pack Face	Less than 5–10 minutes	16	7.1
	Less than 10 to 20 minutes	159	70.6
	Less than 20 to 30 minutes	39	17.3
	Less than 30 to 40 minutes	2	0.8
	more than 40 minutes	2	0.8
	Other	7	3.1
mask pack Usage Steps	After Cleansie	91	40.4
	After Using Skin Toner	110	48.8
	After Using Skin Lotion	12	5.3
	Anytime	2	0.8
	Other	10	4.4
Number of mask packs Used	Daily Use	9	4
	Once Every 2 or 3 Days	21	9.3
	Once Every 4 or 5 days	36	16
	Once Week or Month	137	60.8
	Other	22	9.7
Skin Care After Using mask pack	Cleaning	3	1.3
	Skin Tonor	11	4.8
	Skin Lotion	75	33.3
	Do Nothing	117	52
	Other	19	8.4
Where to Store mask pack	Stored in the Dressing Table	37	16.4
	Store in Refrigerator	134	59.5
	Keep in a Shady Corner	38	16.8
	Keep it Anywhere	8	3.5
	Other	8	3.5

3.6 Categorization and Advantage of the Subject by Mask Pack Type

The results of this study are shown in Table 6. The study participants can distinguish 134 persons (59.5%) from the mask pack types, such as sheet type, hydrogel type, and cellulose type. At 91 (40.4%), many people were found to be poorly distinguishable about the type of mask pack. 180 people (80%) who do not know the advantages of each mask pack sheet. Although 45 people (20%) have used mask packs, most of those surveyed have been found to be equally unfamiliar with the advantages of mask pack sheets. Although consumers have recently become more interested in cosmetics, they are still less aware of or interested in mask pack sheets.

Table 6. Division And Advantages of Sheet Type, Hydrogel Type and Cellulose Type

Item	Classification by Type		Advantage	
	N	%	N	%
Yes	91	40.4	45	20
No	134	59.5	180	80

3.7 Discomfort according to the Mask Pack type of the study subjects

The results of this study are shown in Table 7. Results Out of the four types of mask packs, 56 usability people (24.8%), 37 size (16.4%), adhering 53 (23.5%), and 14 skin irritation (6.2%) were found to have the highest level of discomfort. It was found that 9 (4%) of materials were the most uncomfortable when using hydro gel-type packs. It was found that 19 contents (8.4%) and 17 absorption forces (7.5%) were the most inconvenient aspects when using Sleeping type packs, which are usually gel or cream-type. It was found that 9 people (4%) of material were found to be the same inconvenience of using a cellulose-type pack, and 174 (77.3%) said that they do not know the inconvenience of the pack because they did not use it.

Table 7. Inconvenience According to Mask Pack Type

Item	Sheet Type		Hydrogel Type		Sleeping Type		Cellulose Type	
	N	%	N	%	N	%	N	%
Usability	56	24.8	28	12.4	15	6.6	13	5.7
Size	37	16.4	17	7.5	4	1.7	5	2.2
Material	6	2.6	9	4	7	3.1	9	4
Close Adhesion	53	23.5	16	7.1	9	4	7	3.1
Contents	6	2.6	14	6.2	19	8.4	6	2.6
Absorption	15	6.6	15	6.6	17	7.5	4	1.7
Skin Irritation	14	6.2	5	2.2	7	3.1	7	3.1
I Don't Know	38	16.8	121	53.7	147	65.3	174	77.3

4. Conclusion

This study conducted an analysis of the recognition, purchase and use behavior of mask packs for women in their 20s and 30s living in the metropolitan area. In summing up the results of this study, it has been confirmed that the participants are very interested in beauty. Female consumers can see that the proportion of users who know and distinguish between the characteristics of the sheet type of mask pack was not high, and feel the need to use the pack when there is a skin problem, special days, or when rest is needed. In addition, each type of mask pack has an inconvenience about usability or tightness. The mask pack is a simple and convenient skin care product for modern women, and it is believed that the awareness and status of Korean mask packs should be more widely known in the global market by improving consumers' discomfort with each type of mask pack, and that this study can be used as a basis for the development of mask packs.

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