

**Knowledge, attitudes and practices concerning hair loss among the undergraduate student in
Daffodil International University**



[A dissertation submitted to the Department of Pharmacy, Faculty of Allied Health and Sciences, Daffodil International University, Dhaka. This report presented in partial fulfillment of the requirements for the degree of Bachelor of Pharmacy.]

Submitted To

The Department of Pharmacy
Faculty of Allied Health Sciences
Daffodil International University

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APPROVAL

This Project paper, survey on “**Knowledge, attitudes and practices concerning hair loss among the undergraduate student in Daffodil International University**” submitted to the Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Pharmacy and approved as to its style and contents.

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Declaration

I'm Shaeem Hossen, hereby declare that, this project is done by me under the guidance of Md Mizanur Rahman, Assistant Professor, Department of Pharmacy, Daffodil International University, in partial fulfillment of the requirements for degree of Bachelor of Pharmacy. The results embodied in this project have not been submitted to any other university or institute for the award of any degree.

Shaeem

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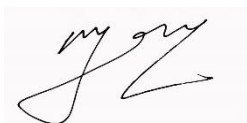
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Certificate

This is to certify that the results of the investigation that are embodied in this thesis works are original and have not been submitted before in substance for any degree or diploma of this university. The entire present work submitted as a thesis work for the partial fulfillment of the degree of Bachelor of Pharmacy.



Md Mizanur Rahman

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- Shaeem Hossen

Dedication



*To my parents and teachers,
who have always been my biggest supporters in all
facets of my life.*

Abstract

Background

Hair loss happens when the hair that has fallen out is not replaced by new hair. Hair loss can have a negative influence on one's self-esteem. Genetic factors, hormonal imbalances, and underlying medical disorders are potential reasons of hair loss in younger people. Understanding the undergraduate students' knowledge, attitude, and practice (KAP) on hair loss prevention is useful for imparting knowledge to others. With the right care, hair loss may occasionally be treatable.

Objective of the study

Understanding the undergraduate students' knowledge, attitude, and practice (KAP) on hair loss prevention is useful for imparting knowledge to others. In addition, this study seeks to determine the variables linked to KAPs for hair loss and to evaluate the correlations between KAPs for hair loss among DIU students. The study assisted in determining their level of knowledge and protective habits.

Methodology

The convenience sample approach was employed to choose 100 respondents for this cross-sectional study among the students of Daffodil International University. On a Google form, there are 55 questions in total, separated into four categories (socio-demographic characteristic, knowledge regarding hair loss, the attitude of hair loss and practice on prevention of hair loss). The responses of the students were collected from 2nd April to 4th April via varsity's email address and accepting responses were stopped when responses were reached to 100.

Results

A total of 100 students were questioned, with a mean age of 22.3 years (males: 77; females: 23). This poll included students from many disciplines. More than 80% of students were aware that hair loss is caused by hereditary factors, bad diet, and hormone imbalances. Baldness was recognized as a visual sign by 89% of the class. 87% of students are terrified to experience hair loss, and 43% of students believe that hair loss cannot be prevented. Hair loss is only felt to occur in old age by 76% of people. 87% of respondents were in favor of seeing a doctor about their hair loss. The radio, newspapers, and social networking sites accounted for the majority of the awareness, while 20% came from health professionals.

Conclusion

The current study discovered that the KAP regarding hair loss was very good. Students are very much careful to their hairs & know factors of hair loss and know how to reduce the risk of hair loss as well.

Keyword: Factors, hair loss, hair care product, side effects, treatment.

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Introduction

CHAPTER ONE

1

1. Introduction

Hair loss happens when the hair that has fallen out is not replaced by new hair. Hair loss can have a negative influence on one's self-esteem. Genetic factors, hormonal imbalances, and underlying medical disorders are potential reasons of hair loss in younger people. (Cotsarelis & Millar 2001) The lifetime incidence of Alopecia areata is approximately 2% worldwide. (Villasante & Miteva 2015) Alopecia, or hair loss, can be temporary or permanent and can affect simply the scalp or the entire body. It could be brought on by hereditary factors, hormonal changes, illnesses, or a natural aspect of aging. While though anyone can lose hair on their head, men are more likely to do so. Baldness often refers to a significant loss of scalp hair. (Ghannat, 2010) The most frequent cause of baldness is age-related hereditary hair loss. Some people would rather let their hair loss progress unchecked and uncovered. Some people may disguise it with their hairstyles, cosmetics, hats, or scarves. And still others decide on a therapy to stop additional hair loss or encourage growth. One should discuss the reason of his or her hair loss and available treatments with a doctor before starting any hair loss treatments. (Price, 1999) Due to inadequate efficacy and few treatment alternatives, hair loss diseases can be challenging to cure. However, recent developments in pathophysiology research and the creation of novel treatments have improved the management of conditions that consistently result in hair loss. (Ohyama, 2010) Self-confidence is negatively impacted by androgenetic alopecia, which lowers a person's quality of life. Therefore, hair loss is a significant psychosocial symptom that requires expensive medical care. Large scalp terminal hair follicles gradually change to shorter, thinner, and less dense vellus hair with a noticeably shorter anagen in cases of androgenetic alopecia. Although synthetic therapeutic agents like minoxidil, finasteride, and dutasteride are frequently used to treat alopecia, their side effects have prompted researchers to search for more natural, effective treatment options, particularly herbs. (Lourith & Kanlayavattanakul, 2013)

Androgenetic alopecia in men can cause baldness and the loss of all hair save the occipital and temporal fringes, as well as bitemporal recession of hair, thinning of the frontal and vertex regions of the scalp, and full baldness. Men occasionally experience diffuse scalp thinning. The diagnosis is supported by the pattern of hair loss, early age of beginning, and presence of little hairs. The aim of treatment is to increase scalp coverage while halting additional hair loss. The only medications now licensed in the US for helping men with androgenetic alopecia grow their hair are topical solutions of 5% and 2% minoxidil and oral finasteride at a dose of 1 mg daily. By growing existing hairs, these medications can increase scalp covering. Additionally, they both prevent additional hair thinning in the vertex and frontal areas. However, neither medication fully regrows hair, and men respond to both medications differently. (Price, V.H 1999) Assessment of free testosterone is advised in women who have female-pattern hair loss and other symptoms that point to an androgen surplus, such as hirsutism, acne, or irregular periods; however, in the absence of these other symptoms, the test's results are likely to be disappointing. If the patient has any risk factors for syphilis, a Venereal Disease Research Laboratory test is advised. If tinea

is thought to be present, scale from the alopecia should be scraped with potassium hydroxide to check for hyphae and submitted for culture. For cultural purposes, hair shafts should also be removed. The presence of a particular group of dermatophytes (*Microsporum canis*) will be indicated by a green fluorescence when examined with a Wood's lamp. A scalp biopsy with a 4-mm puncture may be helpful if the diagnosis is still debatable. This examination is very helpful for assessing patients who may have scarring alopecia. (Shapiro 2007) Hair loss is one of the dermatological complaints with the most emotional undertones. The patient's previous unsatisfactory interactions with doctors who minimize hair loss may be adding to their anxiety. Specific diagnoses are often established with a thorough patient history, physical examination, and a few appropriate screening blood tests. Once the diagnosis is certain, the problem will probably be under control with the appropriate treatment. There are treatment alternatives, however they are few in terms of effectiveness and indications. The ability to understand the underlying disease and the doctor's lack of condescending compassion are both necessary for success. In the end, patients need to understand the fundamentals of the hair cycle and why a lot of patience is necessary for a good aesthetic recovery. (Trieb, 2013)

1.1 Symptoms

Depending on what is causing it, there are many distinct ways that hair loss can manifest. It might affect only your scalp or the entire body, and it can start off suddenly or gradually. Hair loss symptoms and signs might include:

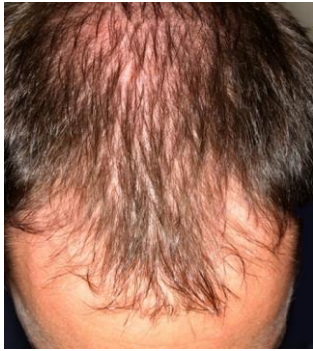
Gradual thinning on top of head: The most typical kind of hair loss, which is caused by aging, is gradual thinning on the top of the head. At the hairline on the forehead, hair frequently starts to recede in men. Typically, women's hair parts are wider than men's. A receding hairline is a hair loss trend that elderly women are experiencing more frequently (frontal fibrosing alopecia). (Van Neste,2006)

Circular or patchy bald spots: Circle or patchy bald patches: Some persons experience balding on their eyebrows, beard, or scalp in the form of circular or patchy bald spots. Before the hair falls out, skin may feel unpleasant or itching.

Sudden loosening of hair: A physical or mental trauma might cause a person's hair to suddenly become loose. When brushing, washing, or even with a little pulling, could lose a few handfuls of hair. While transient, this form of hair loss typically results in general hair thinning.

Hair loss that covers your entire body: Certain diseases and medical procedures, such as chemotherapy for cancer, can cause hair loss that covers your entire body. Usually, the hair grows back.

Scaling that appears in large patches all over the scalp: This is a ringworm symptom. Broken hair, redness, swelling, and occasionally leaking may also be present. (Science daily, 2022)



Male pattern baldness



Female pattern baldness



Patchy hair loss
(Alopecia areata)



Traction alopecia



Patchy hair loss in child



Frontal fibrosing
alopecia

1.2 When to see a doctor and take treatment?

If someone wants to get therapy for persistent hair loss, they should consult a doctor. In order to prevent substantial irreversible baldness, women who have a receding hairline (facial fibrosing alopecia) should discuss early treatment options with their doctor. If she notices greater hair loss than normal when combing or washing her hair, or if it is abrupt, patchy, or both, she should also consult a doctor. An underlying medical problem that has to be treated might be indicated by sudden hair loss. (Harvey, 2013)

1.3 Causes

An average person sheds 50 to 100 hairs every day. Due to the simultaneous growth of new hair, this frequently goes unnoticed. When the hair that has fallen out is not replaced by new hair, hair loss results.

Usually, one or more of the following reasons contribute to hair loss:

Family background (heredity): The inherited disorder that develops with aging is the most typical cause of hair loss. Androgenic alopecia, male-pattern baldness, and female-pattern baldness are the names for this disorder. It often happens gradually and in regular patterns, with men experiencing a receding hairline and bald patches and women experiencing thinning hair at the top of the head.

Medical disorders and variations in hormone levels: Permanent or temporary hair loss can result from a number of circumstances, including hormonal changes brought on by pregnancy, childbirth, menopause, and thyroid issues. Alopecia areata, an immune system-related syndrome that results in patchy hair loss, ringworm infections of the scalp, and the hair-pulling disorder trichotillomania are among the medical disorders (trik-o-til-o-MAY-nee-uh).

Supplements and medications: Several medications, including those for cancer, arthritis, depression, heart issues, gout, and high blood pressure, can cause hair loss as a side effect.

Radiation therapy to the head: It's possible that the hair won't regrow in the exact same way.

A very stressful event: Many people notice general hair thinning many months following a traumatic event, whether it be physical or mental. Temporary hair loss results from this kind.

Hairstyles and treatments: Excessive styling and tight-pulling hairstyles like pigtails and cornrows can result in traction alopecia, a form of hair loss. Permanent hair dye and hot oil treatments can both make hair brittle and fall out. Scarring might cause hair loss to become permanent. (Rushton et al., 2011)

1.4 Risk factors

The risk of hair loss is caused by a variety of variables, including:

- Age
- A mother's or father's side family history of baldness
- A significant weight loss
- Stress
- Poor diet
- Use of specific medications

- Certain medical diseases, such as diabetes and lupus (Potterton et al., 2011)

1.5 Treatment of hair loss

The best course of action will be decided by the doctor once the patient has been diagnosed. There are several treatments that can stop hair loss.

Corticosteroids

A corticosteroid may be prescribed by the doctor to suppress the patient's immune system. As a result, the immune system will no longer assault healthy tissue. It could have fewer hair loss as a result. Hair growth in the afflicted places may start for the patient. (Shapiro et al., 2000)

Topical immunotherapy

This therapy strengthens the immune system to aid the body in fighting the disease. If successful, this therapy can stimulate hair follicles, which will lead to the creation of new hair. (Zerbinati et al., 2018)

Minoxidil (Rogaine)

Both adults and children can use this hair growth remedy. Use this drug along with other treatments for the greatest outcomes. During three months, hair may start to grow again.

Diphencyprone (DPCP)

DPCP is a topical medication used to elicit an allergic response that raises the white blood cell count. This reaction encourages the creation of new hair by stimulating the hair follicles. (Ghandi et al., 2021)

Ultraviolet light therapy

This procedure encourages hair growth by increasing blood flow to hair follicles. Even if the patient's hair is able to grow back, there is still a chance that it may fall out again. Once therapy is finished, hair loss may return. (Ranwala & Rashid, 2012)

Tofacitinib

This cutting-edge treatment, which was first created for rheumatoid arthritis, has a lot of potential for treating the various kinds of alopecia areata. (Mounsey & Reed, 2009)

1.6 Prevention

Genetics is mostly to blame for baldness (male-pattern baldness and female-pattern baldness). It is impossible to stop this kind of hair loss.

This advice may aid people in avoiding kinds of hair loss that can be avoided:

- Treat hair with care. While brushing and combing your hair, particularly when it's damp, use a detangler and try to minimize tugging. A wide-toothed comb might aid in preventing hair loss. Do not subject your hair to severe treatments like hot rollers, curling irons, hot-oil treatments, or permanents. Reduce the strain on your hair caused by braids, rubber bands, and barrettes.
- Consult doctor before using any vitamins or drugs that may thin your hair.
- Shield hair from UV rays from the sun and other
- Give up smoking. According to certain research, smoking and male pattern baldness are related.
- Ask your doctor about a cooling hat if you are receiving chemotherapy. Using this cap during chemotherapy will lessen your chance of hair loss. (Mayoclinic, 2022)



LITERATURE
REVIEW

CHAPTER TWO



2

2. Literature review

- ✚ In Spain epidemiological studies show that 36% of women have FAGA, of which 19.7% is FAGA.I-III and 16.3% FAGA.M. These percentages are similar to those in United States. In 17% of those with FAGA, it occurs before 40 years of age and increases to 32% in postmenopausal women. In the United Kingdom, 6% of women younger than 30 years of age have FAGA, and for those older than 70 years, it reaches 42%. (Camacho-Martinez, 2009)
- ✚ Alopecia is a dermatological disorder that causes hair loss on 1 or more parts of the body, most frequently the scalp, either suddenly or gradually. Due to underlying inflammation, immunological processes, stresses, chemotherapy, or hairstyling techniques, hair loss can be either acute or chronic in nature. Significant psychological effects from alopecia can have a detrimental effect on a patient's quality of life. It is crucial to be able to identify and differentiate between these conditions in order to fulfill patient demands while also delivering appropriate and prompt therapy to enhance outcomes. (Jamerson & Aguh, 2021)
- ✚ It might be difficult to interpret the histological results of primary scarring and non-scarring alopecias. This is particularly true if the biopsy sample is insufficient and the clinical history and alopecia pattern are unknown. The lymphocytic, neutrophilic, and mixed (acne keloidalis) entities of scarring alopecias are covered in this article. The lymphocytic entities include discoid lupus erythematosus, lichen planopilaris, central centrifugal cicatricial alopecia, and pseudopelade of Brocq. Androgenic alopecia, telogen effluvium, alopecia areata, trichotillomania, and traction alopecia are the non-scarring alopecias that were examined. The key to diagnosis in all primary alopecia cases comes from good tissue collection, proper laboratory processing, and relevant clinical data. (Stefanato, 2010)



OBJECTIVE
OF THE STUDY

CHAPTER THREE

3

3. Objectives of the study:

3.1 General objective:

The purpose of this study is to investigate the knowledge, attitude and practice concerning hair loss among students at Daffodil International University.

3.2 Specific objective:

- ✓ The KAP phase also assisted in identifying the root reasons of hair loss.
- ✓ To identify the elements that contribute to hair loss
- ✓ The qualitative phase assisted in identifying the common hair loss prevention products.
- ✓ To raise students' knowledge of hair loss prevention.



METHOD
&
MATERIALS

CHAPTER FOUR

4

4. Method and materials

4.1 Study design and settings

The convenience sample approach was employed to choose 100 respondents for this cross-sectional study. On a Google form, there are 55 questions in total, separated into four categories (socio-demographic characteristic, knowledge regarding hair loss, the attitude of hair loss and practice on prevention of hair loss).

Daffodil International University is located at Daffodil smart city, Dhaka, Bangladesh.

Plus code: V8GC+Q3 Birulia

The pharmacy department of the faculty of allied health sciences at Daffodil International University in Dhaka, Bangladesh, gave its approval to the study protocol. When participants had been told of the study's goals, their informed agreement was acquired on a voluntary basis.

4.2 Sample size and sampling strategy

The most recent census shows that Daffodil International University has a total enrollment of 15,000 students (Male- 8000 & Female- 7000). In this university, there are 15 departments.

One hundred undergraduate students at Daffodil International University were the focus of the current investigation.

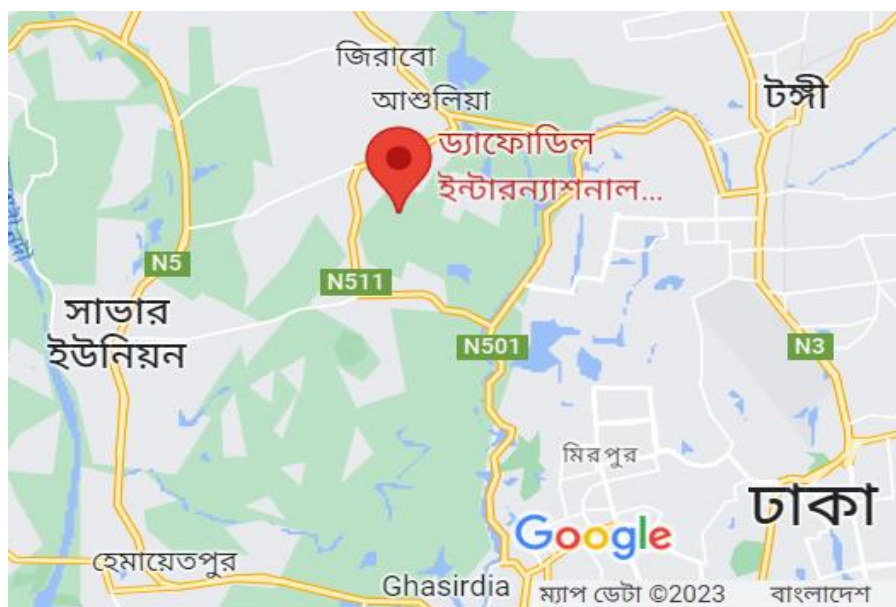


Figure: Daffodil International University in google map

To make sure the questionnaire contained accurate, timely, trustworthy, and valid data, a pilot study (n = 10) was conducted. The survey was written in English, which is a widely used international language.

The questionnaire was divided into several components, including Knowledge and Attitude, Demographic Information, and Respondent Characteristics. It has 18 knowledge-related items, 15 attitude-related items, and 10 practice-related ones for preventing hair loss. In the knowledge area, the response options were Yes/No and Agree/Disagree.

After most face-to-face interviews, data were gathered utilizing a google form by sending emails to the student's university's email address. Before conducting the survey, interviewers had training to make sure they fully understood the questionnaires, preventing any discrepancies in the meanings and interpretations of the terms used. Closed-ended questions about sociodemographic information, knowledge of the etiology, symptoms, attitudes, and habits of the respondents regarding hair loss were included in the questionnaire.

Data analysis

On a Google Form, questionnaires were organized with the appropriate titles and sections. Hence an automated summary has been created that is both logical and useful. The findings were presented in the form of graphs, percentages, and associations between the knowledge attitude and behaviors and the various components.



RESULT
& DISCUSSION

CHAPTER FIVE

5

5. Result and Discussion

A total of 100 students were questioned, with a mean age of 22.3 years (males: 77; females: 23). This poll included students from many disciplines. More than 80% of students were aware that hair loss is caused by hereditary factors, bad diet, and hormone imbalances. Baldness was recognized as a visual sign by 89% of the class. 87% of students are terrified to experience hair loss, and 43% of students believe that hair loss cannot be prevented. Hair loss is only felt to occur in old age by 76% of people. 87% of respondents were in favor of seeing a doctor about their hair loss. The radio, newspapers, and social networking sites accounted for the majority of the awareness, while 20% came from health professionals.

Table: 5.1 Socio-demographic characteristic of the study respondents (N = 100)		
Age (year)	19-24	100
Gender	Male	77
	Female	23
Marital status	Married	04
	Unmarried	96
Religion	Muslim	90
	Hindu	10
Education	All are undergraduate students.	100
Department	Pharmacy	23
	NFE	10
	English	03
	Software engineering	16
	CSE	28
	CIS	02
	EEE	03
	Textile	04
	BBA	06
Civil Engineering	05	

Table 5.1 displays the distribution of respondents based on sociodemographic traits. 100 students in all took part in the poll as responders. Most of them fall within the 19–24 age range. There were 23% men and 77% women. The Daffodil International University is their common affiliation. Some people live in hostels, while others rent homes.

Table: 5.2 Knowledge of Respondent's Towards Hair loss:			
Sl. No.	Knowledge	Correct Answer (%)	Incorrect Answer (%)
01	Hair loss and hair fall have a difference	85%	15%
02	Baldness is the visual sign of hair loss	89%	11%
03	Hair loss occur most during hot weather	60%	40%
04	A person can face hair loss more than once	85%	15%
05	Hair loss can be faced by all age groups	81%	19%
06	Symptoms of hair loss include:		
	▪ Top of head thinning gradually	71%	29%
	▪ A patchy, circular bald area	54%	56%
	▪ Hair suddenly becoming loose	61%	39%
	▪ Scaly patches that extend throughout the scalp	36%	64%
07	Hair loss only occur during old age	85%	15%
08	Poor nutrition is responsible for hair loss	90%	10%
09	Hormonal changes are responsible for hair loss	91%	09%
10	A certain drug's administration may result in hair loss	88%	12%
11	Chemotherapy for cancer treatment cause hair loss	91%	09%
12	Excessive hairstyling or hairstyles cause hair loss	86%	14%
13	A very stressful event cause hair loss	87%	13%
14	Significant weight loss cause hair loss	57%	43%
15	Corticosteroids helps regrow hair in affected area	70%	30%
16	Ultraviolet therapy can stimulate hair growth	75%	25%
17	By Minoxidil (Rogaine therapy Hair may begin regrow within three months	74%	26%

5.2 Knowledge of Respondents' Towards Hair loss:

Table 2 lists the signs and symptoms of hair loss that students correctly understand. The majority of the 100 respondents were right in their perception that the primary symptoms and indicators of hair loss include visible baldness (89%), gradually thinning top hair, and hair loss overall.

90% of respondents were aware that inadequate diet is the primary cause of hair loss with regard to the known mode of hair loss. More than 88% are aware that some medications can result in hair loss.

It is important to note that the majority of respondents (91%) are aware that hormonal imbalance is a key factor in hair loss.

Table: 5.3 Attitude of Respondents' Towards Hair loss			
Sl. No.	Knowledge	Agree N (%)	Disagree N (%)
01	Hair loss cannot be prevented	43%	57%
02	Hair loss cannot be treated	31%	69%
03	Lost hair can't get back again	49%	51%
04	Hair loss leads lack of confidence	77%	23%
05	Everybody has the probability to be lost hair	78%	22%
06	If I have hair loss symptoms, I will quickly see a doctor	87%	13%
07	I am so afraid to be faced hair loss	87%	13%
08	A person cannot face hair loss twice	26%	74%
09	I will not use the comb of a person facing hair loss	64%	36%
10	All people have the chance to get back lost hair by treatment	77%	23%
11	Using special hair care product is more costly than ordinary product	78%	22%
12	Healthy people will never face hair loss	36%	64%
13	Using only special hair care product can prevent hair loss	84%	16%
14	Normal hair care product can't prevent hair loss	53%	47%
15	Hair loss can create social phobia on students	81%	19%

5.3 Attitude of Respondents' Towards Hair loss

The opinions of the respondents' pupils on hair loss are displayed in Table 3. Most respondents had a favorable view on the significance of hair loss, its prevention, treatment, and management. A total of 87 pupils were terrified of losing their hair for a variety of reasons. 69% of those surveyed disagreed that hair loss is incurable. 78% of students acknowledge that losing hair is a possibility for everyone.

Table: 5.4 Practice of Respondents' Towards Hair Loss Control.			
Sl. No.	Knowledge	Yes	No
01	Do you try to minimize pulling when brushing and combing your hair, especially when it's wet?	92%	8%
02	Do you prevent hair loss by using a wide-toothed comb?	78%	22%
04	Do you avoid harsh treatments such as hot rollers, curling irons, hot-oil treatments and permanents?	83%	17%
05	Do you limit the tension on hair from styles that use rubber bands, barrettes and braids?	74%	26%
06	Do you ask your doctor about medications and supplements you take that might cause hair loss?	76%	24%
07	Do you protect your hair from sunlight and other sources of ultraviolet light?	53%	48%
08	Do you use any special hair care product to prevent hair loss?	68%	32%
09	If yes, then do you take suggestion from a doctor before use a special hair care product?	60%	40%
10	Do you check your comb to observe hair loss?	91%	9%

5.4 Practice of Respondents' Towards Hair Loss Control.

Table 04 lists the students who responder's best hair loss prevention strategies. While brushing and combing your hair, try not to pull on it, especially if it's wet. (92%), (83%) Students inspect their comb to see if there is any hair loss. Students who use specific hair care products to stop hair loss are 36%. Students protect their hair from UV rays and other sources more than (50%) of the time. To stop hair loss, the majority of them (83%) steer clear of any severe procedures.

Table 5.5 Source of information on Hair loss			
Sl. No.	Knowledge	Yes	No
01	Television	85%	15%
02	Newspapers/magazines	79%	21%
03	Health personnel	80%	20%
04	Radio	39%	61%
05	Previously faced hair loss	62%	38%
06	Social Networking Site (Facebook)	92%	08%

5.5 Source of information on Hair loss

The sources of information on hair loss are included in Table 05. Social media is the universal source of knowledge on hair loss across the 100 respondents. The majority of them use social networking sites, and (92%) of them acquire information on hair loss from Facebook and YouTube, while health professionals (80%) are a somewhat good source.

5.6 Discussion:

Most people will lose hair to some extent at some point in their lives. Self-esteem can be severely impacted by hair loss. Teenagers may have hair loss due to hormonal imbalances, underlying medical issues, or hereditary reasons. Because to their perception that losing their hair makes them appear less fit and intelligent, several students experience social anxiety. Yet, with the right care, hair loss may occasionally be curable.

Our research was cross-sectional, which ignores the dynamism of the interactions between the variables we looked at. Because of its modest size, our sample size might not accurately reflect the entire population. It is notable that despite these drawbacks, the current findings show the gaps in the KAPs addressing hair loss and emphasize the necessity for more extensive research. According to this study 87% students agree that if they have hair loss symptoms, they will quickly see a doctor. Obviously, this will be a correct discussion. The same thing is mentioned in a reputed research paper that Physician support is especially important for patients in this situation. (Phillips et al., 2017)



CONCLUSION

6. Conclusion

The majority of Daffodil International University students are familiar with the typical symptoms and indicators of hair loss. At the same time, it has been noticed that most of the students are afraid to be faced hair loss as they do not follow all the preventive practices against hair loss. So, they need proper counselling by health professional. Hence, large-scale information, education, and communication campaigns need to be done at frequent intervals for undergraduate students. It seems that the student's high degree of understanding of the warning signs and symptoms of hair loss might point them in the right way.



REFERENCE

CHAPTER SEVEN



7

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Knowledge, attitudes and practices concerning hair loss among the undergraduate student in Daffodil International University [[A dissertation submitted to the Department of Pharmacy, Faculty of Allied Health and Sciences, Daffodil International University, Dhaka](#). This report presented in [partial fulfillment of the requirements for the degree of Bachelor of Pharmacy.](#)] Submitted To The [Department of Pharmacy Faculty of Allied Health Sciences Daffodil International University Submitted By](#) Shaeem Hossen ID: 191-29-1532 Batch: 21th A [Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University](#) Date of submission: April, 2023 i Abstract Background [Hair loss happens when the hair that has fallen out is not replaced by new hair](#). Hair loss can have a negative influence on one's self-esteem. Genetic factors, hormonal imbalances, and underlying medical disorders are potential reasons of hair loss in younger people. Understanding the undergraduate students' knowledge, attitude,

and practice (KAP) on hair loss prevention is useful for imparting knowledge to others. With the right care, hair loss may occasionally be treatable. Objective of the study Understanding the undergraduate students' knowledge, attitude, and practice (KAP) on hair loss prevention is useful for imparting knowledge to others. In addition, this study seeks to determine the variables linked to KAPs for hair loss and to evaluate the correlations between KAPs for hair loss among DIU students. The study assisted in determining their level of knowledge and protective habits. Methodology The convenience sample approach was employed to choose 100 respondents for this cross-sectional study among the students of Daffodil International University. On a Google form, there are 55 questions in total, separated into four categories (socio-demographic characteristic, knowledge regarding hair loss, the attitude [of hair loss and](#) practice on prevention [of hair loss](#)). [The](#) responses of the students were collected from 2nd April to 4th April via varsity's email address and accepting responses were stopped when responses were reached to 100. [Results A total of](#) 100 students [were](#) questioned, [with a mean](#) age [of](#) 22.3 years (males: 77; females: 23). This poll included students from many disciplines. More than 80% of students were aware that hair loss is caused by hereditary factors, bad diet, and hormone imbalances. Baldness was recognized as a visual sign by 89% of the class. 87% of students are terrified to experience hair loss, and 43% of students believe that hair loss cannot be prevented. Hair loss is only felt to occur in old age by 76% of people. 87% of respondents were in favor of seeing a doctor about their hair loss. The radio, newspapers, and social networking sites accounted for the majority of the awareness, while 20% came from health professionals. Conclusion The current study discovered that the KAP regarding hair loss was very good. Students are very much careful to their hairs & know factors of hair loss and know how to reduce the risk of hair loss as well. Keyword: Factors, hair loss, hair care product, side effects, treatment. ii ©Daffodil International University INDEX Chapter 01 Lesson Topic Introduction Page No. 01-03 1.1 Symptoms 03-04 1.2 When to see a doctor and take treatment? 03 1.3 Causes 04 1.4 Risk factors 05-06 1.5 Treatment of hair loss 06 1.6 Prevention 07 02 Literature Review 08-09 03 Objective of the study 10-11 04 Method & materials 12-14 4.1 Study design and settings 13 4.2 Sample size and sample strategy 13-14 4.3 Data analysis 14 05 Result & discussion 15-21 5.1 Socio-demographic characteristic of the study respondents 17 5.2 Knowledge of respondents towards hair loss 18-19 5.3 Attitude of respondents towards hair loss 19 5.4 Practice of respondents towards hair loss control 20 5.5 Source of information of the respondents on Hair loss 21 5.6 Discussion 21 06 Conclusion 22-23 07 Reference 24-26 iii Introduction CHAPTER ONE 1 1. Introduction [Hair loss happens when the hair that has fallen out is not replaced by new hair](#). Hair loss can have a negative influence on one's self-esteem. Genetic factors, hormonal imbalances, and underlying medical disorders are potential reasons of hair loss in younger people. (Cotsarelis & Millar 2001) [The lifetime incidence of Alopecia areata is approximately 2% worldwide](#). (Villasante & Miteva 2015) [Alopecia, or hair loss, can be temporary or permanent and can affect](#) simply the [scalp or the](#) entire [body. It could be brought on by hereditary factors, hormonal changes, illnesses, or a natural aspect of aging](#). While [though anyone can lose hair on their head, men are more likely to do so](#). [Baldness often refers to a significant loss of scalp hair](#). (Ghannat, 2010) [The most frequent cause of baldness is](#) age-related [hereditary hair loss](#). Some [people would rather let their hair loss progress](#) unchecked and uncovered. Some people may disguise it with their hairstyles, cosmetics, hats, or scarves. And still others decide on a therapy to stop additional hair loss or encourage growth. One should discuss the reason of his or her hair loss and available treatments with a doctor before starting any hair loss treatments. (Price, 1999) Due to inadequate efficacy and few treatment alternatives, hair loss diseases can be challenging to cure. However, recent developments in pathophysiology research and the creation of novel treatments have improved the management of conditions that consistently result in hair loss. (Ohyama, 2010) Self- confidence is negatively impacted by androgenetic alopecia, which lowers a person's [quality of life](#). Therefore, [hair loss is a significant psychosocial](#) symptom [that](#) requires expensive medical care. [Large](#)

[scalp terminal hair follicles](#) gradually change [to shorter, thinner, and less](#) dense [vellus hair with a](#) noticeably [shorter anagen](#) in cases of androgenetic alopecia. Although synthetic therapeutic agents like minoxidil, finasteride, and dutasteride are frequently used to treat alopecia, their side effects have prompted researchers to search for more natural, effective treatment options, particularly herbs. (Lourith & Kanlayavattanakul, 2013) Androgenetic alopecia in men can cause [baldness and the loss of all hair](#) save [the occipital and temporal fringes](#), as well as [bitemporal recession of hair, thinning of the frontal and vertex regions of the scalp](#), and [full baldness](#). Men occasionally experience diffuse scalp thinning. The diagnosis is supported by the pattern of hair loss, early age of beginning, and presence of little hairs. The aim of treatment is to increase scalp coverage while halting additional hair loss. The only medications now licensed in the US for helping men with androgenetic alopecia grow their hair are topical solutions of 5% and 2% minoxidil and oral finasteride at a dose of 1 mg daily. By growing existing hairs, these medications can increase scalp covering. Additionally, they both prevent additional hair thinning in the vertex and frontal areas. However, neither medication fully regrows hair, and men respond to both medications differently. (Price, V.H 1999) Assessment of free testosterone is advised in women who have female-pattern hair loss and other symptoms that point to an androgen surplus, such as hirsutism, acne, or irregular periods; however, in the absence of these other symptoms, the test's results are likely to be disappointing. If the patient has any risk factors for syphilis, a Venereal Disease Research Laboratory test is advised. If tinea 2 ©Daffodil International University is thought to be present, scale from the alopecia should be scraped with potassium hydroxide to check for hyphae and submitted for culture. For cultural purposes, hair shafts should also be removed. The presence of a particular group of dermatophytes (*Microsporum canis*) will be indicated by a green fluorescence when examined with a Wood's lamp. A scalp biopsy with a 4-mm puncture may be helpful if the diagnosis is still debatable. This examination is very helpful for assessing patients who may have scarring alopecia. (Shapiro 20007) Hair loss is one of the dermatological complaints with the most emotional undertones. The patient's previous unsatisfactory interactions with doctors who minimize hair loss may be adding to their anxiety. Specific diagnoses are often established with a thorough patient history, physical examination, and a few appropriate screening blood tests. Once the diagnosis is certain, the problem will probably be under control with the appropriate treatment. There are treatment alternatives, however they are few in terms of effectiveness and indications. The ability to understand the underlying disease and the doctor's lack of condescending compassion are both necessary for success. In the end, patients need [to understand the fundamentals of the hair cycle and](#) why [a](#) lot of patience [is](#) necessary for [a](#) good aesthetic recovery. (Trieb, 2013) 1.1 Symptoms Depending on what is causing it, there are many distinct ways that hair loss can manifest. [It might affect](#) only your [scalp or the entire body, and it can](#) start off [suddenly or gradually](#). [Hair loss symptoms and signs might include](#) : [Gradual thinning on top of head: The most](#) typical kind [of hair loss](#), which is caused by aging, is gradual thinning on the top of the head. [At the hairline on the forehead, hair frequently starts to recede in men. Typically, women's hair parts are wider than men's. A receding hairline is a hair loss trend that elderly women are experiencing more frequently \(frontal fibrosing alopecia\).](#) (Van Neste,2006) Circular or patchy bald spots: Circle or patchy bald patches: Some persons experience balding on their eyebrows, beard, or scalp in the form of circular or patchy bald spots. [Before the hair falls out, skin may feel](#) unpleasant [or](#) itching. [Sudden loosening of hair](#): A physical [or](#) mental trauma might cause a person's hair to suddenly become loose. [When brushing, washing, or even with a little](#) pulling, could [lose a few handfuls of hair](#). While [transient, this form of hair loss typically results in general](#) hair [thinning](#). [Hair loss](#) that covers your entire body: Certain diseases [and medical](#) procedures, [such as chemotherapy for cancer, can](#) cause hair [loss](#) that covers your entire body. Usually, [the hair grows back](#). [Scaling that](#) appears in large patches all over the [scalp: This is a ringworm symptom](#). [Broken hair, redness, swelling, and occasionally leaking may also be present](#). (Science daily, 2022) [Male pattern baldness Female pattern baldness Patchy hair](#)

[loss \(Alopecia areata\)](#) [Traction alopecia](#) Patchy [hair loss in](#) child Frontal fibrosing alopecia 1.2 When to see a doctor and take treatment? If someone wants to get therapy for persistent hair loss, they should consult a doctor. In order to prevent substantial irreversible baldness, women who have a receding hairline (facial fibrosing alopecia) should discuss early treatment options with their doctor. If she notices greater hair loss than normal when combing or washing her hair, or if it is abrupt, patchy, or both, she should also consult a doctor. An underlying medical problem that has to be treated might be indicated by sudden hair loss. (Harvey, 2013) 1.3 Causes An average person sheds 50 to [100 hairs every day. Due to the simultaneous growth of new hair, this frequently goes unnoticed. When the hair that has fallen out is not replaced by new hair, hair loss results](#). Usually, one or more of the following reasons contribute to hair loss: Family background (heredity): The inherited disorder that develops with aging is [the most typical cause of hair loss](#). Androgenic [alopecia, male-pattern baldness](#), and [female-pattern baldness are](#) the names for this disorder. It often happens gradually and in regular patterns, with men experiencing [a receding hairline and bald patches](#) and [women](#) experiencing [thinning hair at the top of the](#) head. Medical disorders and variations in hormone levels: Permanent or temporary [hair loss can](#) result from [a number of](#) circumstances, [including](#) hormonal changes brought [on](#) by pregnancy, childbirth, menopause, and thyroid issues. Alopecia areata, an immune system-related syndrome that [results in patchy hair loss, ringworm infections of the scalp, and the hair-pulling disorder](#) trichotillomania are among the medical disorders (trik-o-til-o-MAY-nee-uh). [Supplements and medications](#): Several [medications, including those](#) for [cancer, arthritis, depression, heart](#) issues, [gout, and high blood pressure, can cause hair loss as a side effect. Radiation therapy](#) to the head: It's possible that the hair won't regrow in the exact same way. [A very stressful event: Many people](#) notice [general](#) hair [thinning](#) many [months](#) following [a](#) traumatic event, whether it be physical or mental. Temporary hair loss results from this kind. Hairstyles and treatments: Excessive styling and tight-pulling hairstyles [like pigtails](#) and [cornrows can](#) result in [traction alopecia, a form of hair loss](#). Permanent [hair](#) dye and hot oil treatments can both make hair brittle and fall out. Scarring might cause hair loss to become permanent. (Rushton et al., 2011) 1.4 Risk factors The risk of hair loss is caused by a variety of variables, including: • Age • A mother's or father's side family history of baldness • A significant weight loss • Stress • Poor diet • Use of specific medications • Certain medical diseases, such as diabetes and lupus (Potterton et al., 2011) 1.5 Treatment of hair loss The best course of action will be decided by the doctor once the patient has been diagnosed. There are several treatments that can stop hair loss. Corticosteroids A corticosteroid may be prescribed by the doctor to suppress the patient's immune system. As a result, the immune system will no longer assault healthy tissue. It could have fewer hair loss as a result. Hair growth in the afflicted places may start for the patient. (Shapiro et al., 2000) Topical immunotherapy This therapy strengthens the immune system to aid the body in fighting the disease. If successful, this therapy can stimulate hair follicles, which will lead to the creation of new hair. (Zerbinati et al., 2018) Minoxidil (Rogaine) Both adults and children can use this hair growth remedy. Use this drug along with other treatments for the greatest outcomes. During three months, hair may start to grow again. Diphencyprone (DPCP) DPCP is a topical medication used to elicit an allergic response that raises the white blood cell count. This reaction encourages the creation of new hair by stimulating the hair follicles. (Ghandi et al., 2021) Ultraviolet light therapy This procedure encourages hair growth by increasing blood flow to hair follicles. Even if the patient's hair is able to grow back, there is still a chance that it may fall out again. Once therapy is finished, hair loss may return. (Ranwala & Rashid, 2012) Tofacitinib This cutting-edge treatment, which was first created for rheumatoid arthritis, has a lot of potential for treating the various kinds of alopecia areata. (Mounsey & Reed, 2009) 1.6 Prevention [Genetics is](#) mostly [to blame for baldness \(male-pattern baldness and female-pattern baldness\)](#). It is impossible to stop this kind of hair loss. This advice may aid people in avoiding kinds of hair loss that can be avoided: • Treat hair with care. While brushing and combing your hair, particularly when it's damp, use a

detangler and try to minimize tugging. A wide-toothed comb might aid in preventing hair loss. Do not subject your hair to severe treatments like [hot rollers](#), [curling irons](#), [hot-oil treatments](#), or [permanents](#). Reduce [the strain on your hair](#) caused by braids, rubber bands, and barrettes. • Consult doctor before using any vitamins or drugs that may thin your hair. • Shield hair from UV rays from the sun and other • Give up smoking. According to certain research, smoking and male pattern baldness are related. • Ask your doctor about a cooling hat if you are receiving chemotherapy. Using this cap during chemotherapy will lessen your chance of hair loss. (Mayoclinic, 2022) LITERATURE REVIEW CHAPTER TWO 2.2. Literature review In Spain epidemiological studies show that 36% of women have FAGA, of which 19.7% is FAGA.I-III and 16.3% FAGA.M. These percentages are similar to those in United States. In 17% of those with FAGA, it occurs before 40 years of age and increases to 32% in postmenopausal women. In the United Kingdom, 6% of women younger than 30 years of age have FAGA, and for those older than 70 years, it reaches 42%. (Camacho-Martinez, 2009) Alopecia is a dermatological disorder that causes hair loss on 1 or more parts of the body, most frequently the scalp, either suddenly or gradually. Due to underlying inflammation, immunological processes, stresses, chemotherapy, or hairstyling techniques, hair loss can be either acute or chronic in nature. Significant psychological effects from alopecia can have a detrimental effect on a patient's quality of life. It is crucial to be able to identify and differentiate between these conditions in order to fulfill patient demands while also delivering appropriate and prompt therapy to enhance outcomes. (Jamerson & Aguh, 2021) It might be difficult to interpret the histological results of primary scarring and non-scarring alopecias. This is particularly true if the biopsy sample is insufficient and the clinical history and alopecia pattern are unknown. The lymphocytic, neutrophilic, and mixed (acne keloidalis) entities of scarring alopecias are covered in this article. The lymphocytic entities include discoid lupus erythematosus, lichen planopilaris, central centrifugal cicatricial alopecia, and pseudopelade of Brocq. Androgenic alopecia, telogen effluvium, alopecia areata, trichotillomania, and traction alopecia are the non-scarring alopecias that were examined. The key to diagnosis in all primary alopecia cases comes from good tissue collection, proper laboratory processing, and relevant clinical data. (Stefanato, 2010) OBJECTIVE OF THE STUDY CHAPTER THREE 3.3. Objectives of the study: 3.1 General objective: The purpose of this study is to investigate the knowledge, attitude and practice concerning hair loss among students at Daffodil International University. 3.2 Specific objective: ✓ The KAP phase also assisted in identifying the root reasons of hair loss. ✓ To identify the elements that contribute to hair loss ✓ The qualitative phase assisted in identifying the common hair loss prevention products. ✓ To raise students' knowledge of hair loss prevention. METHOD & MATERIALS CHAPTER FOUR 4.4. Method and materials 4.1 Study design and settings The convenience sample approach was employed to choose 100 respondents for this cross-sectional study. On a Google form, there are 55 questions in total, separated into four categories (socio- demographic characteristic, knowledge regarding hair loss, the attitude of [hair loss and](#) practice on prevention of [hair loss](#)). Daffodil International University is located at Daffodil smart city, Dhaka, Bangladesh. Plus code: V8GC+Q3 Birulia The pharmacy [department of the faculty of allied health sciences at Daffodil International University in Dhaka, Bangladesh](#), gave its approval to the study protocol. When participants had been told of the study's goals, their informed agreement was acquired on a voluntary basis. 4.2 Sample size and sampling strategy The most recent census shows that Daffodil International University has a total enrollment of 15,000 students (Male- 8000 & Female- 7000). In this university, there are 15 departments. One hundred undergraduate students at Daffodil International University were the focus of the current investigation. Figure: Daffodil International University in google map To make sure the questionnaire contained accurate, timely, trustworthy, and valid data, a pilot study (n = 10) was conducted. The survey was written in English, which is a widely used international language. The questionnaire was divided into several components, including Knowledge and Attitude, Demographic Information, and Respondent Characteristics. It has 18 knowledge-related items, 15 attitude-related items, and

10 practice-related ones for preventing hair loss. In the knowledge area, the response options were Yes/No and Agree/Disagree. After most face-to-face interviews, data were gathered utilizing a google form by sending emails to the student's university's email address. Before conducting the survey, interviewers had training to make sure they fully understood the questionnaires, preventing any discrepancies in the meanings and interpretations of the terms used. Closed-ended questions about sociodemographic information, knowledge of the etiology, symptoms, attitudes, and habits of the respondents regarding hair loss were included in the questionnaire. Data analysis On a Google Form, questionnaires were organized with the appropriate titles and sections. Hence an automated summary has been created that is both logical and useful. The findings were presented in the form of graphs, percentages, and associations between the knowledge attitude and behaviors and the various components. RESULT & DISCUSSION CHAPTER FIVE 5.5. Result and Discussion A total of 100 students were questioned, with a mean age of 22.3 years (males: 77; females: 23). This poll included students from many disciplines. More than 80% of students were aware that hair loss is caused by hereditary factors, bad diet, and hormone imbalances. Baldness was recognized as a visual sign by 89% of the class. 87% of students are terrified to experience hair loss, and 43% of students believe that hair loss cannot be prevented. Hair loss is only felt to occur in old age by 76% of people. 87% of respondents were in favor of seeing a doctor about their hair loss. The radio, newspapers, and social networking sites accounted for the majority of the awareness, while 20% came from health professionals. Table: 5.1 Socio-demographic characteristic of the study respondents (N = 100) Age (year) 19-24 100 Gender Male Female 77 23 Marital status Married Unmarried 04 96 Religion Muslim Hindu 90 10 Education All are undergraduate students. 100 Department Pharmacy 23 NFE 10 English 03 Software engineering 16 CSE 28 CIS 02 EEE 03 Textile 04 BBA 06 Civil Engineering 05 Table 5.1 displays the distribution of respondents based on sociodemographic traits. 100 students in all took part in the poll as responders. Most of them fall within the 19–24 age range. There were 23% men and 77% women. The Daffodil International University is their common affiliation. Some people live in hostels, while others rent homes. Table: 5.2 Knowledge of Respondent's Towards Hair loss: Sl. No. Knowledge Correct Answer (%) Incorrect Answer (%) 01 Hair loss and hair fall have a difference 85% 15% 02 Baldness is the visual sign of hair loss 89% 11% 03 Hair loss occur most during hot weather 60% 40% 04 A person can face hair loss more than once 85% 15% 05 Hair loss can be faced by all age groups 81% 19% 06 Symptoms of hair loss include: • Top of head thinning gradually 71% 29% • A patchy, circular bald area 54% 56% • Hair suddenly becoming loose 61% 39% • Scaly patches that extend throughout the scalp 36% 64% 07 Hair loss only occur during old age 85% 15% 08 Poor nutrition is responsible for hair loss 90% 10% 09 Hormonal changes are responsible for hair loss 91% 09% 10 A certain drug's administration may result in hair loss 88% 12% 11 Chemotherapy for cancer treatment cause hair loss 91% 09% 12 Excessive hairstyling or hairstyles cause hair loss 86% 14% 13 A very stressful event cause hair loss 87% 13% 14 Significant weight loss cause hair loss 57% 43% 15 Corticosteroids helps regrow hair in affected area 70% 30% 16 Ultraviolet therapy can stimulate hair growth 75% 25% 17 By Minoxidil (Rogaine therapy Hair may begin regrow within three months 74% 26% 5.2 Knowledge of Respondents' Towards Hair loss: Table 2 lists the signs and symptoms of hair loss that students correctly understand. The majority of the 100 respondents were right in their perception that the primary symptoms and indicators of hair loss include visible baldness (89%), gradually thinning top hair, and hair loss overall. 90% of respondents were aware that inadequate diet is the primary cause of hair loss with regard to the known mode of hair loss. More than 88% are aware that some medications can result in hair loss. It is important to note that the majority of respondents (91%) are aware that hormonal imbalance is a key factor in hair loss. Table: 5.3 Attitude of Respondents' Towards Hair loss Sl. No. Knowledge Agree N (%) Disagree N (%) 01 Hair loss cannot be prevented 43% 57% 02 Hair loss cannot be treated 31% 69% 03 Lost hair can't get back again 49% 51% 04 Hair loss leads lack of confidence 77% 23% 05 Everybody has

the probability to be lost hair 78% 22% 06 If I have hair loss symptoms, I will quickly see a doctor 87% 13% 07 I am so afraid to be faced hair loss 87% 13% 08 A person cannot face hair loss twice 26% 74% 09 I will not use the comb of a person facing hair loss 64% 36% 10 All people have the chance to get back lost hair by treatment 77% 23% 11 Using special hair care product is more costly than ordinary product 78% 22% 12 Healthy people will never face hair loss 36% 64% 13 Using only special hair care product can prevent hair loss 84% 16% 14 Normal hair care product can't prevent hair loss 53% 47% 15 Hair loss can create social phobia on students 81% 19%

5.3 Attitude of Respondents' Towards Hair loss The opinions of the respondents' pupils on hair loss are displayed in Table 3. Most respondents had a favorable view on the significance of hair loss, its prevention, treatment, and management. A total of 87 pupils were terrified of losing their hair for a variety of reasons. 69% of those surveyed disagreed that hair loss is incurable. 78% of students acknowledge that losing hair is a possibility for everyone. Table: 5.4 Practice of Respondents' Towards Hair Loss Control. Sl. No. Knowledge Yes No 01 Do you try to minimize pulling [when brushing and combing](#) your hair, [especially when](#) it's [wet](#)? 92% 8% 02 Do you prevent hair loss by using a wide-toothed comb? 78% 22% 04 Do you [avoid harsh treatments such as hot rollers, curling irons, hot-oil treatments and permanents](#)? 83% 17% 05 Do you [limit the tension on hair from styles that use rubber bands, barrettes and braids](#)? 74% 26% 06 Do you [ask your doctor about medications and supplements you take that might cause hair loss](#)? 76% 24% 07 Do you [protect your hair from sunlight and other sources of ultraviolet light](#)? 53% 48% 08 Do you use any special hair care product to prevent hair loss? 68% 32% 09 If yes, then do you take suggestion from a doctor before use a special hair care product? 60% 40% 10 Do you check your comb to observe hair loss? 91% 9%

5.4 Practice of Respondents' Towards Hair Loss Control. Table 04 lists the students who responder's best hair loss prevention strategies. While brushing and combing your hair, try not to pull on it, especially if it's wet. (92%), (83%) Students inspect their comb to see if there is any hair loss. Students who use specific hair care products to stop hair loss are 36%. Students protect their hair from UV rays and other sources more than (50%) of the time. To stop hair loss, the majority of them (83%) steer clear of any severe procedures. Table 5.5 Source of information on Hair loss Sl. No. Knowledge Yes No 01 Television 85% 15% 02 Newspapers/magazines 79% 21% 03 Health personnel 80% 20% 04 Radio 39% 61% 05 Previously faced hair loss 62% 38% 06 Social Networking Site (Facebook) 92% 08%

5.5 Source of information on Hair loss The sources of information on hair loss are included in Table 05. Social media is the universal source of knowledge on hair loss across the 100 respondents. The majority of them use social networking sites, and (92%) of them acquire information on hair loss from Facebook and YouTube, while health professionals (80%) are a somewhat good source. 5.6 Discussion: Most people will lose hair to some extent at some point in their lives. Self-esteem can be severely impacted by hair loss. Teenagers may have hair loss due to hormonal imbalances, underlying medical issues, or hereditary reasons. Because to their perception that losing their hair makes them appear less fit and intelligent, several students experience social anxiety. Yet, with the right care, hair loss may occasionally be curable. Our research was cross-sectional, which ignores the dynamism of the interactions between the variables we looked at. Because of its modest size, our sample size might not accurately reflect the entire population. It is notable that despite these drawbacks, the current findings show the gaps in the KAPs addressing hair loss and emphasize the necessity for more extensive research. According to this study 87% students agree that if they have hair loss symptoms, they will quickly see a doctor. Obviously, this will be a correct discission. The same thing is mentioned in a reputed research paper that Physician support is especially important for patients in this situation. (Phillips et al., 2017) CONCLUSION CHAPTER SIX 6 6. Conclusion The majority of Daffodil International University students are familiar with the typical symptoms and indicators of hair loss. At the same time, it has been noticed that most of the students are afraid to be faced hair loss as they do not follow all the preventive practices against hair loss. So, they need proper counselling by

health professional. [Hence, large-scale information, education, and communication campaigns need to be done at frequent intervals for](#) undergraduate students. It seems that the student's high degree of understanding [of the warning signs and symptoms of hair loss](#) might point them in the right way. REFERENCE CHAPTER SEVEN 7.7. Reference Camacho-Martinez, F. M. (2009, March). Hair loss in women. In *Seminars in cutaneous medicine and surgery* (Vol. 28, No. 1, pp. 19-32). No longer published by Elsevier. Cotsarelis, G., & Millar, S. E. (2001). Towards a molecular understanding of hair loss and its treatment. *Trends in molecular medicine*, 7(7), 293-301. Ghanaat, M. (2010). Types of hair loss and treatment options, including the novel low-level light therapy and its proposed mechanism. *South Med J*, 103(9), 917-921. Ghandi, N., Daneshmand, R., Hatami, P., Abedini, R., Nasimi, M., Aryanian, Z., & Vance, T. M. (2021). A randomized trial of diphenylcyclopropenone (DPCP) combined with anthralin versus DPCP alone for treating moderate to severe alopecia areata. *International Immunopharmacology*, 99, 107971. Harvey, K. (2013). Medicalisation, pharmaceutical promotion and the Internet: A critical multimodal discourse analysis of hair loss websites. *Social Semiotics*, 23(5), 691-714. Jamerson, T. A., & Aguh, C. (2021). An approach to patients with alopecia. *Medical Clinics*, 105(4), 599-610. Lourith, N., & Kanlayavattanukul, M. (2013). Hair loss and herbs for treatment. *Journal of cosmetic dermatology*, 12(3), 210-222. MayoClinic. (2022 March 26). Hair loss. MayoClinic. Mounsey, A., & Reed, S. W. (2009). Diagnosing and treating hair loss. *American family physician*, 80(4), 356-362. Ohyama, M. (2010). Management of hair loss diseases. *Dermatologica Sinica*, 28(4), 139-145. Phillips, T. G., Slomiany, W. P., & Robert Allison, I. I. (2017). Hair loss: common causes and treatment. *American family physician*, 96(6), 371-378. Potterton, S. L., Green, M. J., Harris, J., Millar, K. M., Whay, H. R., & Huxley, J. N. (2011). Risk factors associated with hair loss, ulceration, and swelling at the hock in freestall-housed UK dairy herds. *Journal of dairy science*, 94(6), 2952-2963. Price, V. H. (1999). Treatment of hair loss. *New England Journal of Medicine*, 341(13), 964-973. Price, V. H. (1999). Treatment of hair loss. *New England Journal of Medicine*, 341(13), 964-973. Rangwala, S., & Rashid, R. M. (2012). Alopecia: a review of laser and light therapies. *Dermatology online journal*, 18(2). Rushton, D. H., Norris, M. J., Dover, R., & Busuttill, N. (2002). Causes of hair loss and the developments in hair rejuvenation. *International journal of cosmetic science*, 24(1), 17-23. Science daily. (2022 July 19). Hair loss news. Science daily. 25 ©Daffodil International University

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