BACKGROUND OF STUDY;

A microorganism(microbe) is a microscopic organism which may exist in its single-celled form or in colony of cells.they are too small to be seen with unaided eye. Microorganisms include bacteria,fungi,algae,viruses,protozoa. Most objects and surfaces (formite) arecontaminated by microorganisms especially bacteria which may lead to transmission of infectious agents resulting to morbidity and mortality

The risk of transmission of disease by inanimate objects has been reported to be often investigated in health care sector and the environment (v.Russotto, A Cortegeni et al 2015)

Human hands have been shown to play significant role in the transmission and cross contamination of microorganism between environmental surfaces (Hardy *et al.,* 2006) .Likewise transmission to the hair/scalp,Conventional hand washing with soap and water,proper care to the hair by adopting a good washing routine.Appropriate hair care routine ensures that your hair stays nourished, healthy, infection-free and strong such as washing regularly with Shampoo and water, proper conditioning can protect the hair from environmental aggressors and heat styling, oiling of hair which provides nutrient and hydration . Essentially,hair care greatly depends on hair types (wavy,curly,straight,etc).

Apart from the skin surface, hair represents a significant tissue component with a capacity of bacterial interactions. New information can be obtained about hair function through the characterization of bacterial adherence, colonization, and responses to hair shafts per se.y

Hair Wigs and Hair extensions are likely important sources of the growth of microorganism as they have been considered symbolic by some people and key accessories by others, they are commonly used multipurpose personal properties of female and some male. most especially hairwigs is a hair accessory made from human hair,animal hair or synthetic fibers.

Wigs have been around for centuries thanks to the versatility and freedom they provide to the wearer(Wig.com,August,2018)The advantages that comes from wearing a wig has increased in calibre to be luxirious and realistic.Convinience is the first benefit especially useful to the ladies out there, but it still applies to men too,it's time efficient especially in styling,provide an option to limitless styles and prevent heat styling,Wearing a wig or weave gives our natural hair a break from daily maintenance routines that may cause damage and weaken the hair such as heat, breakages, chemicals etc.(Gathii Mwangi For Citizen Digital July2015).It promotes stronger growth of the natural hair, gives a good sense of confidence and security.

wet hair wigs caused by improper drying,swimming or rain, creates a moist environment suitable for the growth of microorganisms.Majority of Hair wigs and extensions hardly gets washed or better still at least natural sterilization method i.e. sunlight to decrease the growth of microrganisms. Regularly wearing a wig makes it often soaked with sweat cause by heat or kept in environments laden becomes a breeding ground for bacteria, such as, kitchen tables, walls,countertops, hospital spaces, floor,e.t.c. Therefore, they can be easily contaminated with infectious agents. It also serve as a vehicle for transmission from one person to another when sharing the wigs thereby promoting spread of infections. Irregular cleaning of the scalp or natural hair can cause danduff which is a fungus infection.

Wear and tear of wigs can cause its owner significant irritation and itching.However, in developing countries there is limited data about the microbial contamination of hair wigs their status as potential vehicle of infection, and extent of colonization. Keeping this in mind, this current study is planned to identify the specific microbial contaminations in hair wigs and extensions.

1.2 SIGNIFICANCE OF THE STUDY

This study will provide information on the spectrum of microrganisms found in women wigs and their potential hazard ,hence create awareness on their public implications and control measures.

1.3 AIM ABD OBJECTIVES

The aim of this study is to assess the microbial content of hair wigs in calabar , hence determines their role as potential source of infection.

The objectives of this study are;

1. To examine wigs used by women in calabar metropolis for potential microbial pathogens
2. To characterize the isolates from the study of wigs
3. To ascertain the role of wigs as a potential source of infection
4. To compare variable parameters.

1.4. RESEARCH HYPOTHESIS

Null hypothesis(Ho): There is no microbial contaminants on wigs in calabar

CHAPTER2

BRIEF HISTORY ON WIGS

A Hair Wig is an artificial covering of hair for all or most of the head, of either synthetic or natural hair, worn to be stylish or more attractive.It is most times worn in someone capacity as part of a costume,disguise etc.

This is one of the most ancient and currently the largest of the human hair based industries, with a constantly increasing scale due to global expansion of the fashion industry. The oldest known wigs are from 1400 B.C. Egypt, some of which are still intact today after 3400 years [10]. In the eastern countries, such products primarily catered to the theatre world, but in the west they evolved significantly with the fashion industry. This application predominantly uses good quality, long hair of almost all colors. In addition, hair in which all strands have surface scales in the same direction (similar to hair on the human body), known as Remy hair, is preferred because it tangles much less during working. Non-Remy hair is often used after chemically removing the outer scale containing cuticle layer. Pure Remy hair products are expensive, while those with non-Remy hair or human hair mixed with other fibers are cheaper.

A hair weave is human or artificial hair utilized for the integration with one's natural hair. Weaves can alter one's appearance for long or short periods of time by adding further hair to one's natural hair or by covering the natural hair all together with human or synthetic hairpieces. Wearing a wig is a great option to switch up a person look without making permanent vhanges to their hair but if not careful it might damage the scalp and lead hair loss(Sophia emmanuel2017).Weaving additional human or synthetic pieces can enhance one's hair by giving it volume and length, and by adding color without the damage of chemicals or adopting a different hair texture than that of their own. However, hair loss can occur either along the front hairline or above the ears due to the wearing of specific hair styles for a prolonged period of time, such as weaves. Such hair loss in known as [*traction alopecia*](https://en.m.wikipedia.org/wiki/Traction_alopecia).

By the late 17th century, wigs in various shapes and sizes became a latest fashion trend. Hair weaves in particular, did not grow interest until the 1950s; even during that time celebrities had been the only ones using them. When the "long, disco-haired" era evolved there became a widespread use of hair weave. Since that era, hair weave has only become more popular.[[1]](https://en.m.wikipedia.org/wiki/Artificial_hair_integrations#cite_note-1) Most human hair weaves come from Asian countries like India and China.

Netting is a technique which involves braiding natural tresses under a thin, breathable net that serves as a flat surface onto which stylists can weave extensions. This method requires the use of hair net or cap to be placed over the person's hair that has been braided. Netting provides more flexibility than track placement because the stylist is not limited to sewing extensions to a braid. With netting there is the option of sewing the hair wefts onto the net or gluing. This technique is not as time-consuming when compared to the other hair techniques because it takes about 2–4 hours to complete

The most recent development in weave extensions are lace fronts, which are made from a nylon mesh material formed into a cap that is then hand-ventilated by knotting single strands of hair into the tiny openings of the cap, giving the hair a more natural and authentic continuity than typical extensions. It has few variations including straight, wavy and curly. Furthermore, the extension units can be woven in or attached to a person's hairline with special adhesives. To ensure a proper fit, head measurements are taken into account with this type of weave. A lace frontal is best placed by a professional since more advanced weaving and hair extensions are used. This method is commonly used because it makes it possible to have access to a certain part of their scalp.

A **wig** is a head or hair accessory made from [human hair](https://en.m.wikipedia.org/wiki/Human_hair), [animal hair](https://en.m.wikipedia.org/wiki/Animal_hair), or [synthetic fiber](https://en.m.wikipedia.org/wiki/Synthetic_fiber).[[1]](https://en.m.wikipedia.org/wiki/Wig#cite_note-1)The word wig is short for **periwig**,[[2]](https://en.m.wikipedia.org/wiki/Wig#cite_note-2) which makes its earliest known appearance in the English language in [William Shakespeare](https://en.m.wikipedia.org/wiki/William_Shakespeare)'s [*The Two Gentlemen of Verona*](https://en.m.wikipedia.org/wiki/The_Two_Gentlemen_of_Verona). Some people wear wigs to disguise baldness; a wig may be used as a less intrusive and less expensive alternative to [medical therapies for restoring hair](https://en.m.wikipedia.org/wiki/Hair_restoration) or for a religious reason.

Wigs of synthetic (e.g., acrylic, modacrylic, nylon, or polyester) hair are popular for several reasons. They are comparatively inexpensive (costing one-fifth to one-twentieth as much as a human hair wig). During the past decade, significant improvements in materials have made synthetic hair look and feel more like natural hair. In addition, synthetic wigs weigh noticeably less than human hair versions. They hold a style well—so well, in fact, that they can be difficult to restyle. On th e other hand, synthetic fibers tend not to move as naturally as human hairs, and they tend to frizz from friction along collar lines. Synthetic hair is also sensitive to heat and can easily be damaged (e.g., from an open oven, a candle flame, or a cigarette glow.

IMPORTANCE OF WIGS

Wigs play a significant role in the life of modern women and their crowning glory. Nowadays, there are varieties of stylish wigs ranging from lace front wigs, real human hair wigs, synthetic wigs weaves,etc available which you can easily make a choice hence provide you the desired look .Wigs are also built for comfort,fashion,durability,convience and confidence booster. It helps for women who lose their hair due to cancer by adding beauty and style to their personality. Wigs have been available for centuries thanks to the style versatility and freedom they provide to the weare(2018).

Top of Form

possible side effects of wigs; it can cause headaches if its isnt fit properly or worn incorrectly which applies pressure on the head causing the frequent headaches, hair loss;wearing s wig can damage healthy hair loss if certain steps arent really followed.it is important to observe personal hygiene regularly by making the hair clean and conditioned before putting on a wig, itching;wigs whether human or synthetic hair suffers wear and tear, sharing a wig with someone that is infested with lice

Every woman needs a wig for those bad hair days. They revamp one’s look and boosts confidence.

Some women, however, are forced to wear a wig most of the time because of a receding hairline or hair loss due to health reasons. Some women rely entirely on wigs. But as you do this, do not neglect your own hair; otherwise your hair may end up being damaged.

So how do you get the most out of your wig without damaging your hair?

Read more: <http://www.madehow.com/Volume-3/Wig.html#ixzz6V69cWvTC> **review**

### **History:** Ancient use[Edit](https://en.m.wikipedia.org/w/index.php?title=Wig&action=edit&section=2)

In Egyptian society men and women commonly had clean shaven or close cropped hair and often wore wigs.[[3]](https://en.m.wikipedia.org/wiki/Wig#cite_note-Wallenfels_2000-3)[[4]](https://en.m.wikipedia.org/wiki/Wig#cite_note-4) The [ancient Egyptians](https://en.m.wikipedia.org/wiki/Ancient_Egypt) created the wig to shield shaved, hairless heads from the sun. They also wore the wigs on top of their hair using [beeswax](https://en.m.wikipedia.org/wiki/Beeswax)and resin to keep the wigs in place. Wealthy Egyptians would wear elaborate wigs and scented [head cones](https://en.m.wikipedia.org/wiki/Head_cone) of animal fat on top of their wigs.[[3]](https://en.m.wikipedia.org/wiki/Wig#cite_note-Wallenfels_2000-3) Other ancient cultures, including the [Assyrians](https://en.m.wikipedia.org/wiki/Ancient_Assyrians),[[5]](https://en.m.wikipedia.org/wiki/Wig#cite_note-5) [Phoenicians](https://en.m.wikipedia.org/wiki/Phoenicians), Jews in ancient Israel,[[6]](https://en.m.wikipedia.org/wiki/Wig#cite_note-6) [Greeks](https://en.m.wikipedia.org/wiki/Ancient_Greeks) and [Romans](https://en.m.wikipedia.org/wiki/Ancient_Rome), also used wigs as an everyday fashion.

16th century as a means of compensating for hair loss or improving one's personal appearance.[[8]](https://en.m.wikipedia.org/wiki/Wig#cite_note-8) They also served a practical purpose: the unhygienic conditions of the time meant that hair attracted [head lice](https://en.m.wikipedia.org/wiki/Head_lice), a problem that could be much reduced if natural hair were shaved and replaced with a more easily de-loused artificial hairpiece.[[9]](https://en.m.wikipedia.org/wiki/Wig#cite_note-9) Fur hoods were also used in a similar preventive fashion.

Based on an ivory carving of a woman's head found in southwestern France, anthropologists speculate that wigs may have been used as long as 100,000 years ago. Wigs were quite popular among ancient Egyptians, who cut their hair short or shaved their heads in the interests of cleanliness and comfort (i.e., relief from the desert heat). While the poor wore felt caps to protect their heads from the sun, those who could afford them wore wigs of human hair, sheep's wool, or palm-leaf fiber mounted on a porous fabric. An Egyptian clay figure that dates to about 2500B.C. wears a removable wig of black clay. The British Museum holds a beautifully made wig at least 3,000 years old that was found in the Temple of Isis at Thebes; its hundreds of tiny curls still retain their carefully arranged shape

Uses: Wigs are worn by some people on a daily or occasional basis in everyday life. This is sometimes done for reasons of convenience, since wigs can be styled ahead of time. They are also worn by individuals who are experiencing hair loss due to medical reasons (most commonly cancer patients who are undergoing [chemotherapy](https://en.m.wikipedia.org/wiki/Chemotherapy), or those who are suffering from [alopecia areata](https://en.m.wikipedia.org/wiki/Alopecia_areata)).

Some men who [crossdress](https://en.m.wikipedia.org/wiki/Crossdress) as women wear wigs in different styles to make their hair seem more feminine.

10. J. S. Cox, “The construction of an ancient Egyptian wig (c. 1400 B.C.) in the British Museum,” *The Journal of Egyptian Archaeology*, vol. 63, pp. 67–70, 1977.