

A Survey of the Implications of the Uses of Medicated Creams on Overall Human Health, Students of FCE Okene as Case Study

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Abstract

The main purpose of this study was to carry out a survey of the implications of the uses of medicated creams on overall human health among students of FCE, Okene, Kogi State, Nigeria. Four research questions were formulated to guide the study and survey research design was used for the study with sampled population of 136 respondents, using questionnaire as an instrument for data collection. The data was analyzed using percentage and mean. The study found out that the use of medicated creams had positive and negative implications on the overall human health. It is therefore concluded that the use of medicated creams with the prescription of a dermatologist improves the skin, psychological and physical health of humans. Recommendations were made one of which is before using medicated creams, one should visit a dermatologist so as to get the prescription best to ameliorate the skin health condition.

Keyword: *Medicated creams, Prescription, Implications, Skin health, Toxicity*

Background of the study

Creams have always been used as a barrier to protect the skin as far back as when oils were used to prevent the skin from drying up, (Annemieke, 2020). In the ancient times, creams and ointment were used to care for the skin even to cure skin diseases that were common to the era. But as time went by, some skin diseases came to be without cure or remedy and the implications of having any kind of skin disease was that such a person will be isolated to prevent the spread of the disease and in turn this led to the death of many individuals. Over the years, scientists began to make researches on these skin diseases and used plants or oil obtained from plants as medications for some of these diseases. In modern times, with the aid of science and technology, creams may now be considered as pharmaceutical products based on the techniques used to develop them by the pharmacist, (Mittal , & Sardana, 2013; Kaur, & Saliha, 2017)

A Medication is a substance that is taken into or placed on the body that is used to cure a disease or condition, for example: antibiotics are given to cure infections and may be given to treat a medical condition, for example, anti-depressants are given to treat depressions, (Chauhan & Gupta, 2020). They are also given to relieve symptoms of an illness, for example, pain relievers are given to prevent diseases, as well as vaccines are given to prevent diseases, for example, the flu vaccine which help to prevent the person from complications of having flu.

Medications get into the body in a number of different ways. The way the medication enters the body is called the 'route'. The most common 'route' for medications is orally (by mouth) in the form of pills, capsules or liquids. However, since the objective of this work is centered on medicated creams, the 'route' for the medicated creams the skin, (Alekha, Somnath & Justin, 2013). That is, medicated creams are applied topically on the skin and tend to have a very localized effect. They do not usually enter the bloodstream in significant amounts. That is, they can only take effect on the surface of the skin. Most skin diseases often results from the continuous use of medicated creams or creams not prescribed by the dermatologists used by people who don't know if it has any side effect or hazards to them. **(BDS Medication Administration Curriculum).**

According to Ansel, Popovich & Allen, (2013), there are several types of effects medicated creams can have on the skin. They are:

1. **Desired effect:** this means that the medicated cream is doing what it supposed to do. That is, if the cream for example Funbact A is used to cure Eczema and the Eczema is cured then it has a desired effect.
Since almost all medications have a systematic effect on the body, it will cause side effects.
2. **Side effect:** they are the symptoms that result from a normal dose of a medication. Most side effects are not serious and some may decrease as the body becomes used to it.
3. **Adverse effect:** other side effects like adverse effects can be much serious. It may be related to an increased use of the cream or when the creams become accumulated in the skin, causing Toxicity. Toxicity can damage tissues, cause cancer and in some cases lead to death.
4. Severe allergic reactions to medicated creams can occur.
5. **Medicated Tolerance:** can happen when over time or with repeated usage, the individuals response to the medication is decreased. For example: certain creams(funbact A) that are used for a long time can cause the skin to adapt to them. Tolerance is good when it means that the body has adapted to the minor side effects of the cream. It cause a problem if it makes the medication less effective so that a higher or more effective cream is needed.
6. **Medication dependence:** is when an individual develops a physical or psychological need for a medication. That is, some people who use Funbact A as a spot removal for a longtime will not be able to do without it.
7. **No apparent effect:** sometimes medicated creams do not show any apparent effect (that is not working) because the individual's symptoms have not improved or gone away.
8. **Paradoxical effect:** sometimes medicated creams work in an opposite way. For example: if Funbact A which usually used for curing Eczema now makes it worse, then it is a paradoxical effect. **(BDS Medication Administration Curriculum).**

Statement of the Problem

One of the striking problems facing the overall human health has always been carelessness and self medication. The rate of poor attention to our skin health as humans is very alarming and have given rise to skin diseases today. Most of the time, users mix different creams together without seeking the counsel of a medical personnel or a dermatologist. Carelessness and self-medication has been attributed to many factors which include: poverty, shame, unqualified dermatologists, testimonies of people that once had such diseases and ignorance.

It was observed that most students complain of paucity of fund to take care of themselves and so they resort to using mixtures of different creams to care for their body, especially cheaper ones. The skin may become irritated because of the use of these mixtures and a skin disease breaks out, we now find it hard to seek medical help in the right places. Some would be ashamed because of what people might say when they see the condition of their skin. Students normally seek advices from their colleagues who they perceive to have better experience. Such counsels sometimes escalate the problem. This has become a great concern to the medical organizations and researchers today. The reason could be ascribed to the fact that there are different types of skin diseases posing a threat to human life. These diseases cannot be treated without the presence of a well-trained and qualified dermatologist. This study therefore deemed it necessary to look specifically into the implications of medicated creams on the overall human health.

Purpose of the Study

The main purpose of this study was to carry out a survey on the implications of the use of medicated creams on the overall human health. This study specifically focus on:

1. The effectiveness of medicated creams via prescription of the dermatologist on the overall human health.
2. The effectiveness of medicated creams without the prescription of the dermatologists on the overall human health.
3. The implications of the use of medicated creams via prescription of the dermatologist on the overall human health.
4. The implications of the use of medicated creams without the prescription of the dermatologist on the overall human health.

Research Questions

The following research questions will guide the study:

1. How effective is the use of medicated creams via prescription of the dermatologist on the overall human health?
2. How effective is the use of medicated creams without the prescription of the dermatologist in the overall human health?
3. What are the implications of the use of medicated creams via the prescription of the dermatologist on the overall human health?
4. What are the implications of the use of medicated creams without the prescription of the dermatologist on the overall human health?

Scope of the Study

This survey involved all mature male and female students of the Federal College of Education Okene, Kogi State.

Significance of the Study

Below are the significance of the study:

1. Teachers and would be teachers would find this study relevant and useful in the teaching and learning process especially in Biology. Since, biology is the study of life and the use of these medicated creams cannot be ruled out, it has to be taught so that researches can be carried out and more information can be gained to teach science students who in turn can teach their fellow students.
2. Students and would be parents would also find it useful in caring for themselves in their daily lives and nearer future. The knowledge of implication of the use of medicated creams will help students and would be parents in deciding what to do when skin infections arise for them to either care for themselves or for their children.
3. The knowledge of knowing the implications of medicated creams on human health would help save a life. Knowing the implications of the medicated cream one uses could prevent one from having cancer and even in selecting the cream that is suitable for their skin.
4. It would be helpful to the health organizations such as WHO, in conjunction with the Government to educate the students or people in general through public enlightenment programs to eradicate ignorance. For people that are not opportuned to attend school, rallies, public speech, pamphlets e.tc can be arranged by the Government to support health organizations so that the people will be saved from skin and health implications that can claim their lives.
5. It would be helpful to the educational sector in including this topic into the curriculum. The addition of this research to the curriculum is to create awareness not only for our generations but for generations to come so that they may also be enlightened.
6. Finally, this study would be helpful for the study on Self-medication. As being one of the major causes of negative implication of the use of medicated creams, this research can be used as a base knowledge to carry-out more research as to why people resort to self-medication.

Research Design.

A descriptive survey research design was used for this study. This is preferred for the purpose of describing and the collection of data on certain characters among interpreting existing conditions from the randomly selected sampling from the population of the study which are located at various points in the study area. According to Osuala (2005), descriptive survey design gives the accurate assessment of the characteristics of the whole population of the people.

Population of the study

The population of the study were students both male and female in the campus of Federal College of Education, Okene located by the roadside along Okene-Lokoja highway in Adavi L.G.A of Kogi State.

Sample and Sampling Techniques

The researcher adopted the simple random sampling technique in selecting the sample for the study. This is easy to use to terminate any form of bias and to give equal opportunities for random selection method from the population of 136 respondents were sampled for the study. The respondents were male & female.

Instrument for data Collection

To carry out this survey, instrument used in this research was a structured questionnaire, to collect data for the study. The questionnaire was designed and used for the generation of relevant information.

The questionnaire item for the respondents was divided into four sections namely section A, B, C and D. Each sections having four questions. Section A asking the question on the effect of the use of medicated creams via the prescription of the dermatologist, section B questions the effect of the use of medicated creams without the prescription of the dermatologist, Section C questions the implication of the use of medicated creams via the prescription of the dermatologist and section D questions the implications of the use of medicated creams without the prescription of the dermatologists, having the total of sixteen questions. The respondents were required to tick under the alternative of the best choice. The four point Likert scale ranging from strongly agree (4), Agree (3), disagree (2), and strongly disagree (1) was adopted. The respondents responded to the items based on their convictions.

Method of Data Collection

Sequel to the permission and co-operation of the respondents, the researcher administered the questionnaire which was used to collect data from the target audience in the Federal College of Education with the help of two (2) research assistants. The researcher personally administered the questionnaire to the respondents and waited for the respondents to respond to the questionnaire before retrieval. The retrieval was done immediately to enhance the safety, and to ensure 100% return rate of the questionnaire.

Method of Data Analysis

The data collected through questionnaire were analyzed using percentage and mean. The rating average was 2.50. Scores below 2.50 were rejected while scores at 2.50 above were accepted.

Decision Rule

1. Item will be accepted if its calculated mean is greater than or equal to the rating average.
2. Item will be rejected if its calculated mean is less than rating average.

Data Analysis And Presentation Of Results

Analysis of the Research Questions

Research question 1: How effective is the use of medicated creams via prescription of the dermatologist on the overall human health?

Analysis of data using mean

Table 1: The effects of the use of medicated creams without the prescription of the dermatologist to the overall human health.

S/N	ITEMS	SA	A	SD	D	MEAN	DECISION
1.	The use of medicated creams prescribed by the dermatologist	69	62	2	3	3.4	Accepted

	makes the skin of the student healthy.						
2.	Students who use medicated creams are in better health condition than students who don't use it.	64	35	27	10	2.9	Accepted
3.	The use of medicated creams via prescription results had paradoxical effects in students.	14	32	58	32	2.1	Rejected
4.	The use of medicated cream via prescription by the dermatologist has no effect at all on the overall health of the students.	12	28	53	43	1.9	Rejected

From Table 1 above, for Item 1 which says “medicated creams give desired effects if prescribed by the dermatologist” have the mean 3.4 which is greater than the mean cut-off point of 2.5, so the item was accepted. The mean 2.9 was recorded for Item 2 which says “students who use medicated creams are in better health condition than students who don't use it” was also accepted. Item 3 which says “the use of medicated creams via prescription results had paradoxical effects in students” have a mean of 2.1 which is less than the rating average mean of 2.5 and as such the item was rejected. For item 4 which says “the use of medicated creams via prescription by the dermatologist has no effect at all on the overall health of the students”, had the mean of 1.9 which is less than the mean cut-off of 2.5 and as such, item 4 was rejected.

Research Question 2: How effective is the use of medicated creams without the prescription of the dermatologist in the overall human health?

Table 2: The effects of the use of medicated creams without the prescription of the dermatologist in the overall human health.

S/N	ITEMS	SA	A	SD	D	MEAN	DECISION
5.	The use of medicated creams not prescribed by the dermatologist enhance overall health of the students.	25	27	49	35	2.1	Rejected
6.	Students who use medicated creams are in better health condition than students who don't use it.	19	28	52	37	2	Rejected
7.	Medicated creams without the prescription of the dermatologist results in allergic reactions on the skin of the students that use them.	47	57	19	13	2.8	Accepted
8.	The use of medicated cream via prescription by the dermatologist has no effect at all on the overall health of the students.	16	29	57	37	2.1	Rejected

From table 2 above, for item 5 which says “the use of medicated creams not prescribed by the dermatologist enhances overall health of the students” have the mean of 2.1 which is less than the mean cut-off point of 2.5, so the item was rejected. The mean of 2.0 was recorded for item 6

which says “students who use unprescribed medicated creams get better results than students who use medicated creams” which also is less than the mean cut-off of 2.5 and as such the item was rejected. For item 7 which says “medicated creams without the prescription of the dermatologist results in allergic reactions on the skin of the students that use them” have a mean of 2.8 which is greater than the mean cut-off of 2.5 was accepted.

Research question 3: What are the implications of the use of medicated creams via prescription on the overall human health?

Table 3: Implication of the use of medicated creams via prescription on the overall human health

S/N	ITEMS	SA	A	SD	D	MEAN	DECISION
9.	The use of medicated creams via prescription by the dermatologist can cause disease of the skin.	25	30	45	36	2.1	Rejected
10.	Medicated creams via prescription can improve the overall health of the students.	42	57	19	18	2.7	Accepted
11.	The use of medicated creams via prescription results in the development of high esteem in the students.	43	51	27	15	2.7	Accepted
12.	The use of medicated creams on infected skin cures the skin infection and does not allow reoccurrence of such infections.	46	40	32	18	2.6	Accepted

Table 3 above showed the mean of 2.1 for item 9 which states that “the use of medicated creams via prescription by the dermatologist can cause skin disease” since the mean is less than the cut-off point of 2.5 therefore the item was rejected. 2.7 was recorded for item 10 which says “Medicated creams via prescription can improve the overall health of the students” which is greater than the mean cut-off point of 2.5 was accepted. 2.7 was also recorded for item 11 which says “the use of medicated creams via prescription results in the development of high self esteem in students”. Also for item 12 which showed that “the use of medicated creams on infected skin cures the skin infection and does not allow reoccurrence of such infections” with the mean of 2.6 was accepted as it is greater than the mean cut-off point of 2.5.

Research Question 4: What are the implications of the use of medicated creams without the prescription of the dermatologist on the overall human health?

Table 4: The implications of the use of medicated creams without the prescription of the dermatologist on the overall human health.

S/N	ITEMS	SA	A	SD	D	MEAN	DECISION
13.	The use of medicated creams without prescription of the dermatologist results in vitiligo.	53	51	18	14	2.9	Accepted
14.	The use of medicated creams without prescription leads to the destruction of the epidermis of the skin	40	77	19	0	2.9	Accepted
15.	Medicated cream without the prescription	46	57	20	13	2.8	Accepted

	from the dermatologist results in the destruction of the adaptive immune system (Langerhans) of the students.						
16.	The use of medicated cream without the prescription of the dermatologist results in long life of the students.	16	19	55	46	1.9	Rejected

In table 4 above, a mean of 2.9 was calculated for the item 13 which says “the use of medicated cream without the prescription of the dermatologist results in vitiligo” and was accepted because it is greater than the mean cut-off point of 2.5. For item 14 which says “the use of medicated creams without prescription leads to the destruction of the epidermis of the skin”, this equally have the mean of 2.9 which is above the mean cut-off point of 2.5, so the item was accepted. Also, a mean of 2.8 was recorded for item 15 which says “medicated creams without the prescription from the dermatologist results in the destruction of the adaptive immune system (Langerhans) of the students” was accepted as it is greater than the mean cut-off point of 2.5. While a mean of 1.9 was recorded for item 16 which says “the use of medicated cream without the prescription of the dermatologist results in long life of the students” was rejected as it is below the cut-off point of 2.5.

Summary of Findings

Based on the data analyzed, the following findings were made:

1. The effect of the use of medicated creams via prescription does not result had paradoxical effects but it improves the skin health and overall health of students of F.C.E Okene.
2. The effect of the use of medicated creams without the prescription of the dermatologist results in allergic reactions and does not enhance the overall health of the student. Also, students who use medicated creams without the prescription of the dermatologist do not get better result compared to the students that use medicated creams via prescription.
3. It was discovered that the use of medicated creams via prescription of the dermatologist produce cures against skin infections and does not allow reoccurrence of the infection.
4. The implication of the use of medicated creams without the prescription of the dermatologist could lead to Skin disease like vitiligo, destruction of the epidermis of the skin and the destruction of the adaptive immune system (Langerhans) of the students. It also does not result in the long life of the students.

Implications of the study

Over all, the result of the study exposed some areas that needed to be focused on. An adage says “health is wealth”, therefore, one should do what it takes to stay healthy but it is no exaggeration that self-medication has become a common practice and mainly due to lack of access to health care, recklessness and ignorance.

Also, there is easy availability of over the counter drugs around the vicinity of the college and poor medicine regulatory scheme. The study revealed that there was no availability of qualified dermatologist in the college.

The study also exposed that insufficient funds or poverty could encourage the use of medicated creams without the prescription of the dermatologist.

Summary

The main purpose of the study was to survey the implications of the use of medicated creams on the overall human health. The population of the study comprised of the students of F.C.E, Okene. Questionnaire was used in data collection. It was validated by the supervisor.

The results from the analysis showed that the implications of the use of medicated creams on the overall human health were indicated in two types of cases. The first case was the implication of the use of medicated cream on the overall human health via prescription of a dermatologist. It had positive implication on the overall human health that is, it lead to healthy skin, confidence, no reoccurrence of such infections and overall be healthy. The second case was the survey of the implication of the use of medicated creams without the prescription of a dermatologist which had negative effects like bleaching of the skin, thinning of the top skin layer, cancer, destruction of the kidney due to steroids contained in the creams that is absorbed by the kidney, infertility, low self-esteem, tear in the skin, skin discoloration, body odor even death

Conclusion

This study revealed that there were implications attached to the use of medicated creams on the overall human health. The effects are often ignored because of cost and lack of information. Students run a higher health risk on the use of these products, many people resort to the mixing of different products to enhance the capability of these products and making them more dangerous. The sudden freedom from parental guidance that comes with tertiary education and leaving home enables the opportunity for students to explore this at will. This study has been able to provide insights into the implications of the use of medicated creams. It was concluded that these implications could be controlled or minimized only if the creams were used via the prescription of a dermatologist. The effects could be positive or adverse depending on whether or not it was used under medical supervision, (Kaur & Saliha, 2017)

Recommendations

Based on the findings and conclusion of this study, the following recommendations were made:-

1. The use of medicated creams should be by the prescription of a dermatologist.
2. The Federal Government should ensure that qualified dermatologists are employed in College clinics.
3. There should be public enlightenment on the advantages of the use of medicated creams via prescription, not only in schools but also in communities of the nation.
4. The Federal Government should also encourage the dermatologists by paying their salaries as at when due.

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