

**CARETAKERS' KNOWLEDGE TOWARDS PREVENTION OF TINEA CAPITA AMONG CHILDREN
BELOW 12 YEARS IN KAJJANSI HEALTH CENTER IV, WAKISO DISTRICT.
A CROSS-SECTIONAL STUDY.**

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Abstract

Background

Tinea capitis (TC) is a disease caused by superficial fungal infection of the skin of the scalp, eyebrows, and eyelashes, with a propensity for attacking hair shafts and follicles. The prevalence of tinea capitis has increased in children worldwide. Therefore, this study intends to assess the Caretaker's knowledge towards prevention of tinea capita among children below 12 years in Kajjansi Health Center iv, Wakiso district.

Methodology

A descriptive study design was employed for quantitative data collection, simple random sampling technique was used to select respondents from which data was collected. Well, a well-designed, semi-structured questionnaire written in the English language with open and closed-ended questions and pre-tested questionnaires was used to collect data on a sample of 50 respondents, data was later analyzed manually and systematically by compiling it in the form of percentages, tables, pie charts, and bar graphs.

Results

Majority of respondents (46%) were between the age (7-12) years, (40%) had completed their primary level of education. 54% of the respondents had ever heard about tinea capitis, 46% knew breaking off of the hair was a sign of tinea capitis, (50%) knew that observing proper personal hygiene was one of the management options for tinea capitis and 70% mentioned that tinea capitis is spread through shaving at the barbershop.

Conclusion

Knowledge about prevention of tinea capitis among caretakers was fair; since most of the respondents had ever heard about tinea capitis and most of them had obtained the information about tinea capitis from the health workers.

Recommendations

The Ministry of Health and NGO through media should create awareness about the management and prevention of tinea capitis in children to the population.

Keywords: *Prevention of Tinea capitis among children, caretaker's knowledge, Kajjansi Health center iv.*

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Background

Tinea capitis (TC) is a disease caused by superficial fungal infection of the skin of the scalp, eyebrows, and eyelashes, with a propensity for attacking hair shafts and follicles. The prevalence of tinea capitis has increased in children worldwide (Dogo et al., 2016). TC is more common among blacks and children with a global prevalence of 200 million cases (Rodríguez-Cerdeira et al., 2021). A study conducted to assess tinea capitis exposure, knowledge, and preventive behavior among residents of Teso South sub-county, Busia county, revealed that (54.9%) of the respondents strongly

agreed that 'itchy, scaly and bald patches on the head' were signs and symptoms of TC; 37.0% strongly agreed that 'sections of the hair breaking off near the scalp, leaving scaly red areas or bald spots'; 33.3% strongly agreed that 'brittle hair that easily pulls out'; and (22%) strongly agreed that 'painful scalp' were signs and symptoms of TC. (Ogombo et al, 2021).

Alfred Haya in his study on knowledge, attitude, and practices of children and teachers towards prevention and control of tinea capitis infections in some sub-county, western Kenya; showed that over 50% of the pupils had

adequate knowledge on the spread of superficial fungal infections (Amimo, 2021). Furthermore, regarding the assessment of the knowledge on the control of fungal infections, the majority of the participants were aware that it affects the hair shaft on the scalp, eyebrows, or eyelashes. Most pupils were aware that the infection could be acquired through close physical contact with the infected person as well as from close contact with pets such as cats and dogs. The pupils interviewed were aware of the strategies used to manage the infection including the use of systemic antifungal drugs, proper personal hygiene, and oral antimycotic therapy (Leung et al., 2020)

In Africa, according to the study that was carried out on the Mycological profile of tinea capitis in school children in rural southern Ethiopia, results showed that all patients with tinea capitis had other cutaneous problems; 26 children had one other skin problem, 33 children had two, 18 children had three, 14 children had four, 7 children had five and one child showed six lesions in addition to tinea. (R Perez et al, 2017). In Kajjansi Health Center IV, due to the high population of children in this community and the area being dusty. This research therefore gave more details to the parents and guardians of children on the prevention measures/ strategies. It's against this background that this study intends to assess the Caretaker's knowledge of the prevention of tinea capitis among children below 12 years in Kajjansi Health Center iv, Wakiso district.

Methodology

Study design

A cross-sectional study design was employed with quantitative approaches where data was gathered at only one point at a time. This design was preferred for this study because it considers issues for instant economy, rapid data collection, and the ability to understand the population from part of it.

Study area

The study was carried out from Kajjansi Health Center IV located in Wakiso district central part of Uganda approximately 13 kilometers from Kampala district. It receives 150 patients on average per day and it has the following departments which include; OPD, Maternity, Antenatal, Impatient wards, ART clinic, ENT clinic, Dental clinic, and Eye clinic.

Study population

The study population consisted of caretakers of children below 12 years in Wakiso district who consented to participate in the study.

Sample size determination

The sample size was determined using Burton's formula (1965) $Sample\ size\ (n) = \frac{QR}{O}$ Where Q is the total number of days taken for data collection R is- the number of respondents who were interviewed per day O is- Maximum time taken on each respondent per day. Values: Q= 10 days R=5 respondents. O=1 hour (Time duration was from 8 am- 1 pm each day) Therefore, $n = \frac{QR}{O} = \frac{(10 \times 5)}{1} = 50$ Respondents were used.

Study variables

Prevention of Tinea Capitis was the dependent variable where knowledge was the independent variable.

Inclusion criteria

The study comprised caretakers of children below years in Kajjansi Health Center IV who consented voluntarily during the time of data collection.

Exclusion criteria

All caretakers of children below and above 12 years were excluded from the study.

Sampling technique

Simple random sampling was used to select the sample from the source population. The technique was preferred because it ensured freedom from human bias and each member of the target population would have an equal and independent chance of being included.

Data collection tool

Semi-structured questionnaires consisting of both closed and open-ended questions written in English language and later translated into the local language (Luganda) were used to collect data. The researcher considered questionnaires as the most convenient way of collecting data from respondents because it was easy for the researcher to administer and obtain data within a short time from a large number of respondents.

Pretesting of the questionnaire

A questionnaire was pretested by getting 10% of the sample from Nsanji Health Center III for its validity.

Data collection procedure

An introduction letter was obtained from the Kampala School of Health Sciences and delivered to the head of the research department at Kajjansi Health Center IV, Wakiso district seeking permission to carry out the study. When permission was granted, two research assistants with good knowledge of the local language that is Luganda were trained on research methodology and study objectives before data collection. All those who fulfilled the inclusion criteria were interviewed for about 30 minutes in a quiet and

private place, preferably at the health facility premises. The procedure was repeated each day until the sample size of 50 respondents was obtained.

Quality control

The filled questionnaires were checked for completeness at the interview site before leaving the place. Partly filled questionnaires were handed back to the respective respondents for completion before being re-submitted to the supervisor.

Data analysis and presentation

Data was analyzed manually by use of tally sheets and a scientific calculator; and systematically computed into frequency and percentages using Microsoft Excel to generate tables and figures for easy presentations.

Ethical considerations

After approval of the proposal by the supervisor, permission to collect and obtain data was sought with the help of an introductory letter from the Kampala School of Health Sciences administration to the health center; once permission was granted, the researcher explained the study objectives to the participants and a consent form was signed by each respondent before collecting data. Information obtained from the respondents was kept confidential. This was done to ensure that the research ethics were observed throughout the study.

Results

Demographic characteristics

Table 1: Shows the distribution of respondents according to demographic characteristics (N=50)

Age of the child	Frequency(f)	Percentage (%)
2months-2years	20	40
3-6years	17	34
7-12 years	23	46
Total	50	100
Tribe		
Muganda	30	60
Munyankore	10	20
Musoga	07	14
Others	03	6
Total	50	100
Relationship to the child		
Mother	30	60
Father	05	10
Aunt	11	22
Others	04	8
Total	50	100
Highest level of education		
Never went to school	10	20
Primary	20	40
Tertiary	12	24
College/ University	08	16
Total	50	100
Sex		
Male	12	24
Female	38	76
Total	50	100

From table1: shows that the majority of respondents (46%) were between the age range of 7 to 12 years, and a minority (20%) of the respondents were 2 months to 2 years of age. Also, from the above table, the majority (76%) of the respondents were female whereas the minority (24%) of the respondents were male. More than half of the respondents (60%) were Baganda whereas the least (6%) belonged to other tribes such as Lugbara and others. Most of the

respondents (40%) completed their primary level of education and the least (16%) of the respondents had completed their tertiary level of education. The majority of respondents (60%) were mothers to children whereas (8%) of the respondents reported other relationships between them and their children such as uncles, aunts mothers, and so on.

Knowledge Towards Prevention of Tinea Capitis Among Caretakers of Children Below 12 Years in Kajjansi Health Centre Iv Wakiso District

Figure 1: Shows the distribution of respondents according to whether they had ever heard about Tinea capitis(N=50).

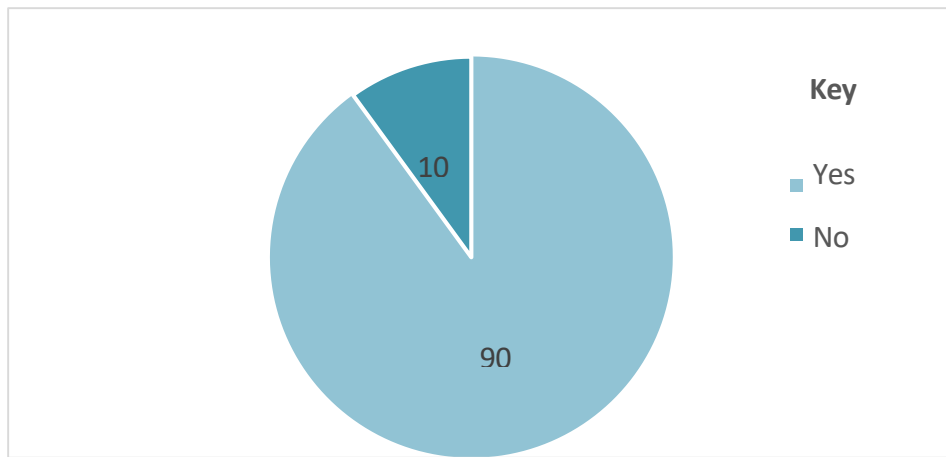


Figure 1: indicates that the majority of the respondents (90%) had ever heard about tinea capitis whereas the minority (10%) had never heard about tinea capitis.

Table 2: Shows the distribution of respondents according to where they obtained information about tinea capitis from (N=45)

Response	Frequency (f)	Percentage (%)
Health workers	15	33.3
Social media	10	22.2
Radio	04	8.9
Others	16	35.6
Total	45	100

Table 2: shows that most of the respondents (35.6%) obtained the information about tinea capitis from other sources such as inching of the scalp whereas the least (8.9%) obtained the information about tinea capitis from radio stations.

Table 3: Shows the distribution of respondents according to their knowledge about the signs and symptoms of tinea capitis (N=50)

Response	Frequency(f)	Percentage (%)
Breaking off of the hair	23	46
Brittle hair	15	30
Painful scalp	07	14
Others	05	10
Total	50	100

Table 3: shows that almost half of the respondents (46%) knew breaking off of the hair as a sign of tinea capitis whereas the least (10%) knew other signs and symptoms of tinea capitis such as itching of the scalp.

Figure 2: Shows the distribution of respondents according to their knowledge about some of the preventive measures of tinea capitis (N=50).

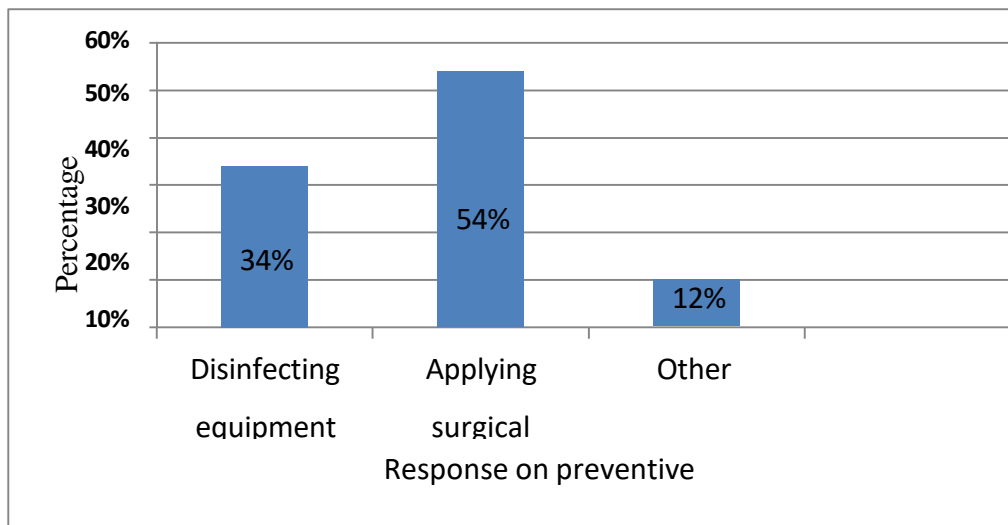


Figure 2: shows that more than half of the respondents (54%) mentioned applying surgical spirit as a preventive measure of tinea capitis whereas the least (12%) mentioned other preventive measures.

Figure 3: Shows the distribution of respondents according to their knowledge of management options of tinea capitis (N=50).

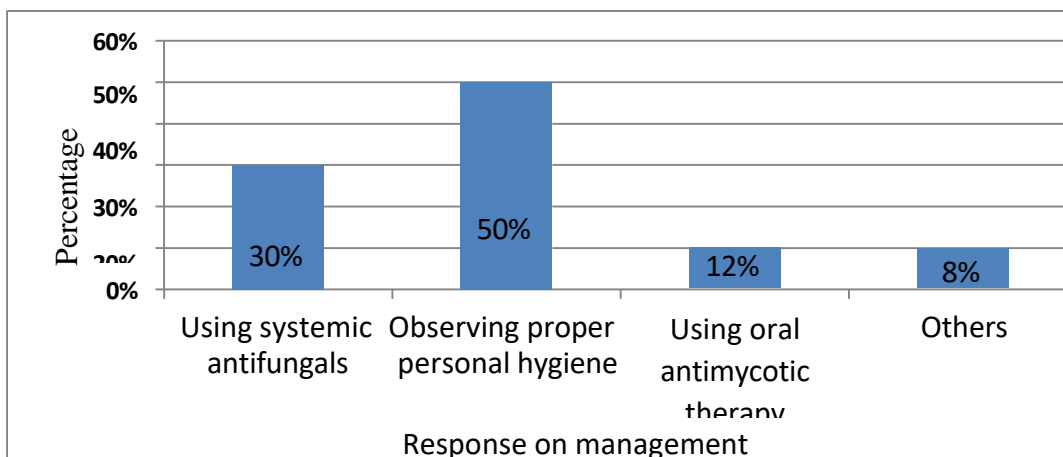


Figure 3: indicates that half of the respondents (50%) knew that observing proper personal hygiene could manage tinea capitis whereas the least (8%) knew other management options.

Table 4: Shows the distribution of respondents according to their knowledge about the effects that are associated with tinea capitis (N=50)

Response	Frequency (f)	Percentage (%)
Causes hair loss	21	42
Affects the hair shaft of one's scalp	23	46
Others	06	12
Total	50	100

Table 4: shows that most of the respondents (46%) mentioned that tinea capitis affects the hair shaft of one's scalp whereas the least (12%) mentioned other effects of tinea capitis.

Table 5: Shows the distribution of respondents according to their knowledge about how tinea capitis is spread (N=50).

Response	Frequency(f)	Percentage(%)
Shaving at the barbershop	35	70
Shaving using a razor blade	10	20
Others	05	10
Total	50	100

Table 5: shows that the majority of the respondents (70%) mentioned that tinea capitis is spread through shaving at the barbershop whereas the least (10%) mentioned other ways by which tinea capitis is spread such as sharing clothes.

Discussion of findings

Knowledge towards prevention of tinea capitis among caretakers of children below 12 years.

Data generated from 50 respondents who participated in the study showed that most of the respondents (46%) knew breaking off of the hair was one of the signs of tinea capitis. This could be attributed to the fact that most of the caretakers had at least cases of tinea capitis in their homesteads. The study findings were not in line with a study that was conducted in Uganda by Ogombo et al (2021), where results showed that (54.9%) of the caretakers mentioned itchy, scaly bald patches on the head as a sign of tinea capitis. Also, the study results indicated that more than half of the respondents (54%) mentioned applying surgical spirit as a preventive measure of tinea capitis. This implies that most of these respondents had seen this being practiced in most saloons around their homesteads. These results are in correspondence with the study by Haya et al (2022,) where the majority of the respondents (50%) agreed on the

application of methylated spirit on the head immediately after shaving young children.

The study also revealed that half of the respondents (50%) reported observing proper personal hygiene as a management option for tinea capitis. This implies that caretakers could have been attending various health talks preferably from health workers. These results were in correspondence with a study carried out in Kenya by Alfred et al (2021), where the majority of the participants (82.2%) also reported observing proper personal hygiene as a management option for tinea capitis. Furthermore, the study showed that almost half of the respondents (46%) knew that tinea capitis can affect the hair shaft of one's scalp. This could be attributed to the fact that there are many cases of tinea capitis in their communities. These current study findings were in line with a study conducted in southwestern Nigeria by Olutoyin et al (2017), where (55%) of respondents mentioned that tinea capitis affects the hair shaft of one's scalp. To add on that, the majority of the respondents (70%) reported that tinea capitis is spread through shaving at the barbershop. This could be because they had witnessed most children who suffered from tinea capitis had a habit of visiting barbershops. These results were in agreement with a study conducted in Botswana by (Adesiji et al., 2019), where the majority (65.6%) of the

participants reported that tinea capitis is spread through shaving at the barbershop.

Conclusion

Knowledge about prevention of tinea capitis among caretakers was fair; since most of the respondents had ever heard about tinea capitis and most of them had obtained the information about tinea capitis from the health workers.

Limitations of the study

The researcher encountered financial difficulties.
Tentative school programs interfered with the exercise
The researcher faced difficulties in obtaining information from respondents.

Recommendations

The Ministry of Health and NGO through media should create awareness about the management and prevention of tinea capitis in children to the population.
The government through the Ministry of Health should improve the management of childhood fungal infections by increasing the finances allocated for childhood illnesses in Uganda.

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List of abbreviations

ART: Antiretroviral Therapy
ENT: Ear, Nose, and throat
IPD: Department
OPD: Outpatient Department

SPSS: Statistical Package for Social Services
TC: Tinea Capitis
UAHEB: Uganda Allied Health Examinations Board
WHO: World Health Organization.

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There is no source of funding.

Conflict of interest

The authors declare no competing interest.

Authors biography

Fredrick Polycap Onauro is a student with a diploma in clinical medicine and community health at Kampala School of HealthSciences.

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References

1. Ogombo Concilia M, WanzalaMaximilla, Were Tom. (2021). Assessment of Tinea Capitis Exposure, knowledge, and preventive behavior among residents of Teso sub-county, Busia County. *World Journal of Innovative Research*, 10 (1), 60-65.
2. Pérez-Tanoira, R., Marín, I., Berbegal, L., Prieto-Pérez, L., Tisiano, G., Cuadros, J., ... &. (2017). *Medical Mycology* (Vol. 55).
3. Olutoyin, O. O., Onayemi, O., & Gabriel, A. O. (2017). Risk factors associated with acquiring superficial fungal infections in school children in southwestern Nigeria. *Journal of African Health Sciences*, 17 (2), 330-336.
4. Adesiji, Y. O., Omolade, F. B., Aderibigbe, I. A., Ogungbe, O., Adefioye, O. A., Adedokun, S. A., Adekanle, M. A., & Ojedele, R. (2019). Prevalence of Tinea Capitis among Children in Osogbo, Nigeria, and the Associated Risk Factors. *Diseases (Basel, Switzerland)*, 7(1), 13. <https://doi.org/10.3390/diseases7010013>
5. Amimo, F. (2021). *Knowledge, Attitude, and Practices of School Children on Prevention and Control of Superficial Fungal in Western Kenya IJPHER Knowledge, Attitude and Practices of School Children on Prevention and Control of Superficial Fungal in Western Kenya*. https://www.academia.edu/86857194/Knowledge_Attitude_and_Practices_of_School_Children_on_Prevention_and_Control_of_Superficial_Fungal_in_Western_Kenya_IJPHER_Knowledge_Attitude_and_Practices_of_School_Children_on_Prevention_and_Control_of_Superficial_Fungal_in_Western_Kenya

ntion_and_Control_of_Superficial_Fungal_in_W
estern_Kenya

6. Dogo, J., Afegbua, S. L., & Dung, E. C. (2016). Prevalence of Tinea Capitis among School Children in Nok Community of Kaduna State, Nigeria. *Journal of Pathogens*, 2016, 9601717. <https://doi.org/10.1155/2016/9601717>
7. Leung, A. K. C., Hon, K. L., Leong, K. F., Barankin, B., & Lam, J. M. (2020). Tinea Capitis: An Updated Review. *Recent Patents on Inflammation & Allergy Drug Discovery*, 14(1), 58–68.

<https://doi.org/10.2174/1872213X14666200106145624>

8. Rodríguez-Cerdeira, C., Martínez-Herrera, E., Szepietowski, J. c., Pinto-Almazán, R., Frías-De-León, M. g., Espinosa-Hernández, V. m., Chávez-Gutiérrez, E., García-Salazar, E., Vega-Sánchez, D. c., Arenas, R., Hay, R., & Saunte, D. m. (2021). A systematic review of worldwide data on tinea capitis: Analysis of the last 20 years. *Journal of the European Academy of Dermatology and Venereology*, 35(4), 844–883. <https://doi.org/10.1111/jdv.16951>

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