

PRACTICE TOWARDS FIRST AID MANAGEMENT OF BURNS AMONG PARENTS OF CHILDREN UNDER FIVE YEARS AT GOMBE HOSPITAL. A CROSS-SECTIONAL STUDY.

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Abstract

Page | 1 **Background**

Globally, burn injuries are a leading cause of death and disability among children. The study aims to assess the practice of first aid management of burns among parents of children under five years at Gombe Hospital.

Methodology

A descriptive cross-sectional study in which in-depth interviews were conducted, involving quantitative research approaches. Data was manually analyzed and entered into a computer using Microsoft Excel 2021. It was then presented using tables and figures.

Results

21 (70%) of the respondents were employed while 9(30%) were unemployed. 17 (57%) took their children to the hospital after a burns accident whereas the diminutive 5 (17%) took their children home after a burns accident. 21 (70%) used herbs to treat burns whereas 9 (30%) did not use herbs to treat burns. 22 (73%) used cooking oil to treat the burns whereas 8 (27%) did not use cooking oil to treat the burns. The majority of the respondents 20(67%) didn't use cold water in burnt areas whereas the minority of the respondents 10(33%) used cold water in burnt areas.

Conclusion

The practices toward first aid management were predominantly improper and potentially harmful which not only undermine effective burn management but also pose serious risks to the health and recovery of the children.

Recommendations

The Ministry of Health should Ensure that health workers receive regular training on the latest in burn care and prevention, enabling them to provide accurate advice and follow-up care to patients.

Keywords: Practice, First aid management of burns, Gombe hospital, Children under five years

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Background

Globally, burn injuries are a leading cause of death and disability among children (Peck, 2021). Therefore, the World Health Organization (WHO) estimates that burn injuries account for ~180,000 deaths annually and are the fifth most common cause of non-fatal childhood injuries (WHO, 2022). In Uganda, the prevalence of burns among under-fives was 32%, highest among those aged 24 to 35 months (39%), and least in those below 12 months (10%) (Kobusingye et al., 2021). The possibility of sepsis related to infection increases in children (Vaghardoost et al, 2020). In India revealed that 53% of parents who had children under 5 years with complications of burns didn't take their children to the hospital immediately with burns, respondents had a Deficient practice towards first aid management of burns among parents of children under 5 years (Farzan et al, (2023). In Ethiopia revealed that 59% of respondents who had children under 5 years with complications of burns had good practice towards first aid

management of burns in children under 5 years (Denekew et al, 2021). The study aims to assess the practice of first aid management of burns among parents of children under five years at Gombe Hospital.

Methodology

Study design

A descriptive cross-sectional study in which in-depth interviews were conducted, involving quantitative research approaches. Data was collected from various respondents, and its effective collection utilized a triangular approach, hence the design was the most appropriate. Additionally, the design enabled the collection of all the necessary data at one point in time, completed within the limited amount of time available for doing so.

Study setting

The study was conducted at Gombe Hospital which is a government-owned Health facility under the management

of the Ministry of Health (MoH). The hospital is located off of the Mpigi–Kabulasoke–Maddu–Sembabule Road, in the central business district of the town of Gombe, approximately 70 kilometers (43 mi) southwest of Mulago National Referral Hospital. This is about 81 kilometers (50 mi) northeast of Masaka Regional Referral Hospital. It offers both curative and preventive services like Outpatient, inpatient, Maternal, and Child health care including immunization, and ANC- Health education including a daily run clinic of ART. The study setting was selected because it had recorded poor provision of first aid management of burns among parents of children under 5 years in reach of the researcher and is where the investigator will have noted the research problem under study.

Study Population and Rationale

The study included parents of children under 5 years with burns at Gombe Hospital in Butambala District, who received treatment there. The target population was considered because the subject content under investigation directly applied to them.

Sample Size Determination

The Burton formula (1965) formula was used, that is Where;

Q: is the total number of days taken to collect data.

R: Is the maximum number of respondents to be interviewed

O: Maximum amount of time on each respondent.

Q= 6, R= 5, O = 1 hour

therefore

N= 30 respondents

A sample size of 30 respondents was used.

The study involved a total of 30 parents of children under 5 years with burns at Gombe Hospital in Butambala District; a small number was selected for easy data collection. However, this was also the recommended number of participants as per the research guidelines provided by the Uganda Nurses and Midwives Examinations Board 2009.

Sampling Procedure

A simple random type of sampling procedure was used to select the respondents for the study. Selected parents according to the clinic lists were chosen at random, from which at least one participant from the clinic was given a chance to participate in the study. This was achieved by getting pieces of paper on which the words “inclusion” meaning included in the study and “exclusion” meaning excluded from the study were written for the respondents to pick. Whoever picked the “inclusion” paper was given a questionnaire to fill out, whereas those who picked the “exclusion” paper were exempted from the study.

Inclusion Criteria

The study included all parents of children under 5 years with burns at Gombe Hospital in Butambala District who had voluntarily consented to participate in the study.

Dependent Variable was first aid management of burns

Independent variable was practice towards first aid management of burns

Research Instruments

Data was collected using a semi-structured questionnaire, which consisted of open and closed-ended questions. The questionnaires had questions with options where the respondents chose what best suited them. The instrument was pretested at Mugarama Health Center III among 10 pregnant women. The questionnaire was used because it enabled the respondents to respond efficiently to the questions that were asked.

Data collection Procedure

Before administering the questionnaires, the researcher explained the questions to the respondents. For those unable to read and write, questions were translated to them and their responses were recorded in data. The procedure took 3 days, where the researcher collected data from 10 respondents per day to obtain the required number of 30 respondents.

Data management

The filled questionnaires were collected, checked for completeness, and counted after every data collection day to ensure that they were all returned, coded, and kept in a safe place as a backup. A flash disk was also used to store data.

Data analysis and presentation

Data was manually analyzed and entered into a computer using Microsoft Excel 2021. It was then presented using tables and figures.

Ethical consideration

An introductory letter was obtained from the principal of Saleem School of Nursing and Midwifery introducing the researcher to the research committee of Gombe Hospital in Butambala District which was allowed to conduct the study. Once permission was granted, the chairman of the research committee introduced the researcher to the respondents. Respondents were assured of maximum confidentiality for all the information that was given. The study only commenced after the study objectives had been clearly explained. Participants were asked to voluntarily consent to the study and were told about free entry and free exit when the need arose. Questionnaires were then administered to participants, filled out, and later returned to the researcher who kept them in the file.

Results

Table1: Shows the Socio-demographic characteristic (n=40)

Characteristics	Attributes	Frequency (f)	Percentage (%)
Shows the age of the respondents	20 – 29 years	21	70
	30 – 39 years	06	20
	40 and above	03	10
Illustrates the respondents’ employment.	Employed	21	70
	unemployed	09	30
Demonstrates the respondents’ marital status	Married	16	53
	single	09	30
	divorced	05	17
	Total	40	100

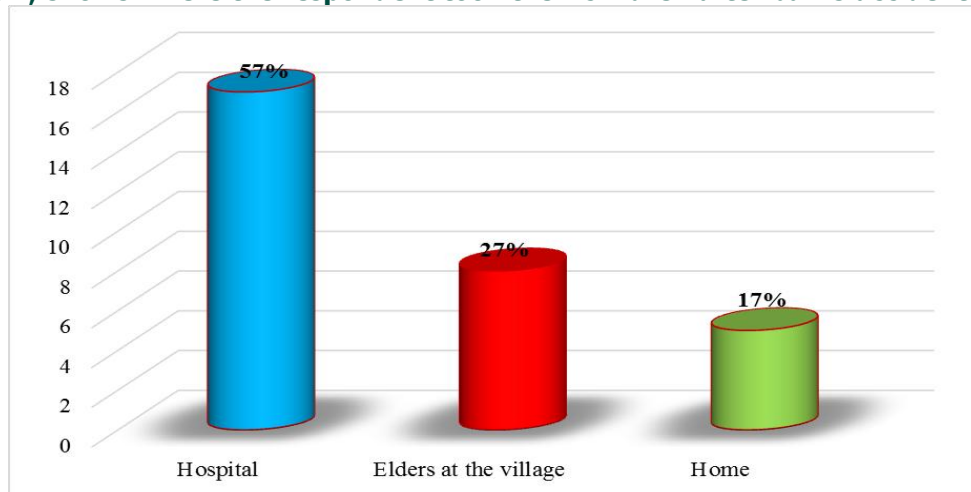
Source: Primary data, 2024

Table 1; the majority of the respondents, 21(70%), were between the ages of 20 and 29, while a smaller group, 3(10%), were aged 40 and above. It further illustrates that a significant number of respondents, 21 (70%), were

employed, compared to a smaller number, 9(30%), who were unemployed. Additionally, the table demonstrates that more than half of the respondents, 16 (53%), were married, whereas fewer respondents, 5(17%), were divorced.

Practices towards first aid management of burns among parents of children under five years at Gombe Hospital

Figure 1; shows where the respondent took their children after burns accident (n=30)



Source: Primary data, 2024

Figure 1; 17 (57%) took their children to the hospital after a burns accident whereas a diminutive number of the respondents 5 (17%) took their children home after a burns accident.

Table 2: Illustrates whether the respondent used herbs to treat burns (n = 30)

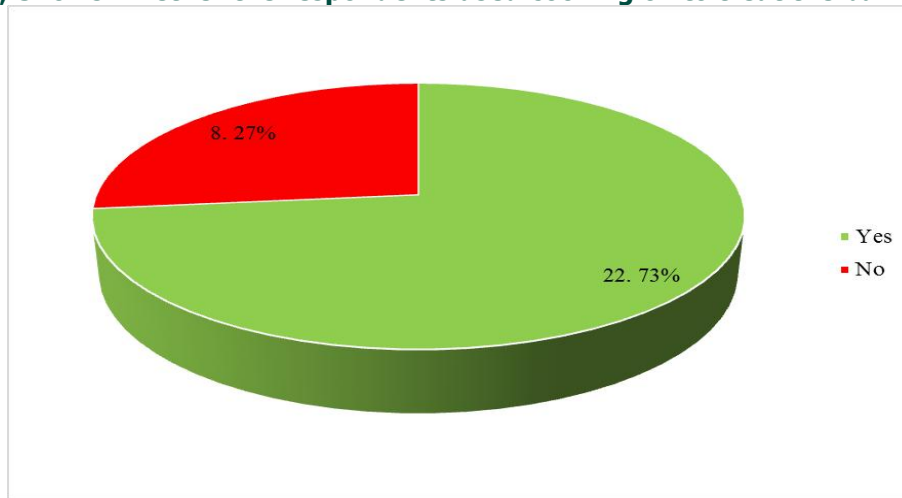
Response	Frequency (f)	Percentage (%)
Yes	21	70
No	09	30
Total	30	100

Source: Primary data, 2024

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Table 2; the biggest number of respondents 21 (70%) used herbs to treat burns whereas the least number of respondents 9 (30%) did not use herbs to treat burns.

Figure 2; Shows whether the respondents used cooking oil to treat the burns (n=30)



Source: Primary data, 2024

Figure 2; an enormous number of respondents 22 (73%) used cooking oil to treat the burns whereas a diminutive number of respondents 8 (27%) did not use cooking oil to treat the burns.

Table 3: Shows whether the respondents used cold water in the burnt area (n = 30)

Response	Frequency (f)	Percentage (%)
Yes	10	33
No	20	67
Total	30	100

Source: Primary data, 2024

Table 3; the majority of the respondents 20(67%) didn't use cold water in burnt areas whereas the minority of the respondents 10(33%) used cold water in burnt areas.

Discussion

Immediate Action after a Burn (Figure 1): A significant proportion (57%) of respondents promptly took their children to the hospital following a burn incident, a practice that ensures the child receives professional medical evaluation and treatment. However, the fact that 17% of parents chose to take their children home instead indicates a troubling approach that could delay essential medical care. Immediate hospital visits are vital for accurate burn assessment, pain management, and prevention of further complications. In contrast, delaying

medical attention by returning home can increase the risk of infection, poor healing, and severe long-term outcomes. This differs from the findings of Farzan et al., 2023 where only 53% of parents did not immediately take their children to the hospital.

Use of Herbal Remedies in Burn Treatment (Table 2): A large majority (70%) of parents used herbal remedies to treat burns, a practice that is not recommended due to the lack of scientific evidence supporting the efficacy and safety of most herbs for burn treatment, with some potentially causing harm. The reliance on unproven herbal treatments can lead to infections, allergic reactions, and delayed healing, indicating a gap in knowledge or distrust of conventional medical treatments. This practice aligns with findings from Mobayen et. al., (2023), in Iran, where

59% of parents also utilized herbal remedies, highlighting a widespread reliance on traditional methods rather than medically advised treatments across various regions.

Application of Cooking Oil on Burns (Figure 2): An overwhelming majority (73%) of respondents applied cooking oil to burns, a practice strongly advised against medical guidelines. Substances like butter or oils can trap heat in the skin, worsening the injury, and increasing the risks of infection and scarring. This practice is common, as echoed by the study by Amir et. al., (2022), in Iran, where 71% of parents used cooking oil on burns, demonstrating a critical need for public health education to dispel enduring myths about burn care and prevent further harm.

Use of Cold Water in Burned Areas (Table 3): A majority (67%) of respondents did not apply cold water to the burn area, reflecting a poor understanding of proper burn first aid. The immediate use of cool (not cold) running water can significantly reduce tissue temperature, decreasing the depth and severity of the burn. Neglecting this step can lead to more substantial damage and increased pain. This stands in stark contrast to the findings from Bazzi et al., (2022) in Malawi, where 53% of parents did use cold water on burns, highlighting a discrepancy in the knowledge or implementation of this essential initial response among parents in Gombe.

Conclusion

The practices toward first aid management were predominantly improper and potentially harmful which not only undermine effective burn management but also pose serious risks to the health and recovery of the children.

Recommendations

The Ministry of Health should Ensure that health workers receive regular training on the latest in burn care and prevention, enabling them to provide accurate advice and follow-up care to patients.

Health facilities should Incorporate Burn Care Education into Routine Check-Ups: Use routine health checks as an opportunity to educate parents about burn risks and the correct first aid practices.

Acknowledgment

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their unwavering support and encouragement throughout this research project.

List of abbreviations

ANC	-	Antenatal care
ART	-	Antivietorial therapy
HMIS System	-	Health Management Information System
MOH	-	Ministry of Health
WHO	-	World Health Organisation

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Conflict of interest

The author did not declare any conflict of interest

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