Paracetamol use (and/or misuse) in children in Enugu, South-East, Nigeria

Group E1

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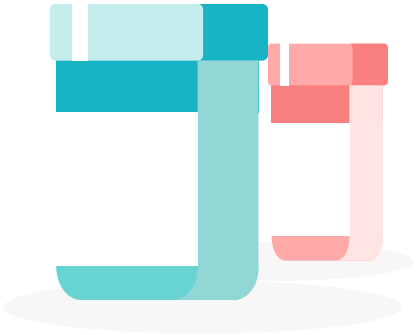
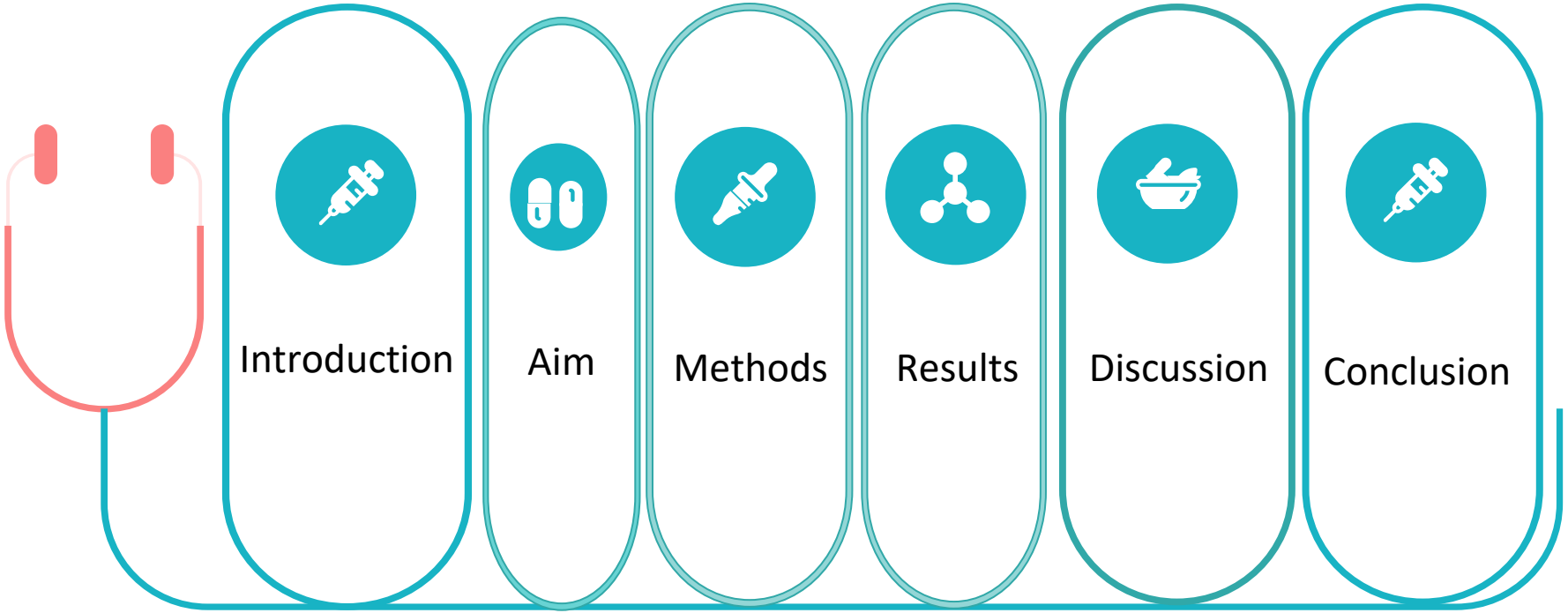


OUTLINE OF PARACETAMOL USE



Introduction

(Omran)

Introduction

The study focuses on understanding Paracetamol usage among pediatric populations, aiming to identify patterns, factors influencing its administration, and potential misuse.

Conducted at a Pediatric Outpatient Clinic in Nigeria, it collects data on dosage, formulation, and frequency of Paracetamol use, along with demographic information and caregiver perspectives.

The findings highlight concerns like self-prescription and reliance on past experience, emphasizing the importance of education to promote safe usage and minimize risks. **(Graham & Scot, 2005)**

01

AIM

To explore the patterns of Paracetamol administration among children in Enugu, Nigeria.

02

STUDY SETTING

Conducted at the University of Nigeria Teaching Hospital in Enugu.

03

PARTICIPANTS

231 children and their caregivers were included in the study.

04

DATE COLLECTION

Structured questionnaires were administered to caregivers, collecting information on Paracetamol use, dosages, sources of prescription, and demographic variables.

Method of study

(Raghad)

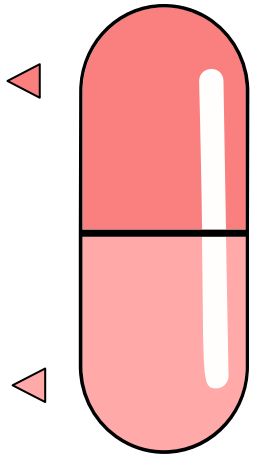
Method of Study

Study area

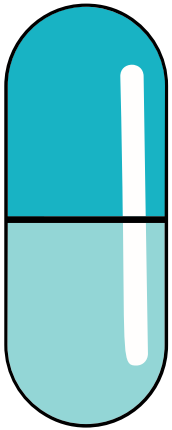
The study was conducted at the pediatric outpatient clinics of the University of Nigeria Teaching Hospital (UNTH).

Study population

An observational prospective study involving 231 children aged 6 weeks to 16 years at the pediatric outpatient clinic of the University of Nigeria Teaching Hospital, between June and November 2011, was carried out using convenient sampling method.



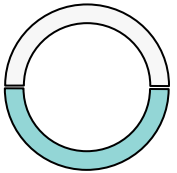
Method of Study



Study procedure

Self-administered questionnaire was used to collect information from the caregivers of children attending the pediatric outpatient clinic of the hospital during the study period.

Paracetamol overdose was assessed based on the frequency of administration. A history of frequency of administration that exceeded four times in a 24 hour period was regarded as abuse .



Method of Study

Inclusion criteria

Children aged between 6 weeks and 16 years those were included in the study.

Exclusion criteria

Severely ill children Subjects and those unwilling to participate in the study were excluded.

Data analysis data

Was analyzed with SPSS version 19 represented in tables.

The ages and sex of the children were compared using Chi square test.

Chi square test was also used to compare the relationship between age and formulation of Paracetamol administered. The mean and ranges of all the variables were calculated

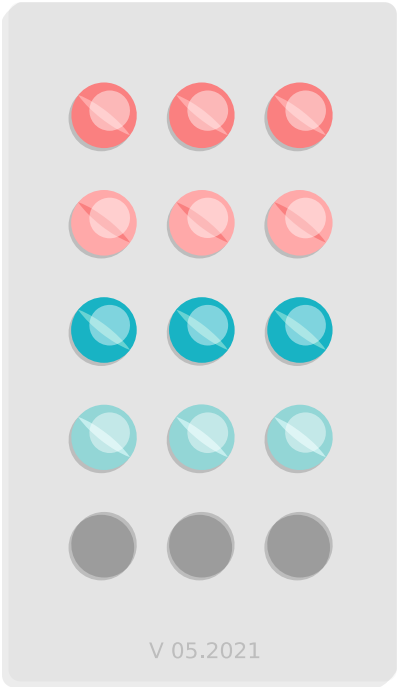
Method of Study

Ethical considerations

Ethical clearance for the study was obtained from the Ethics and Research Committee of the University of Nigeria Teaching Hospital

Aim

To determine the pattern of Paracetamol administration in children in Enugu, South-East Nigeria



Results of Study

(Ahmed)

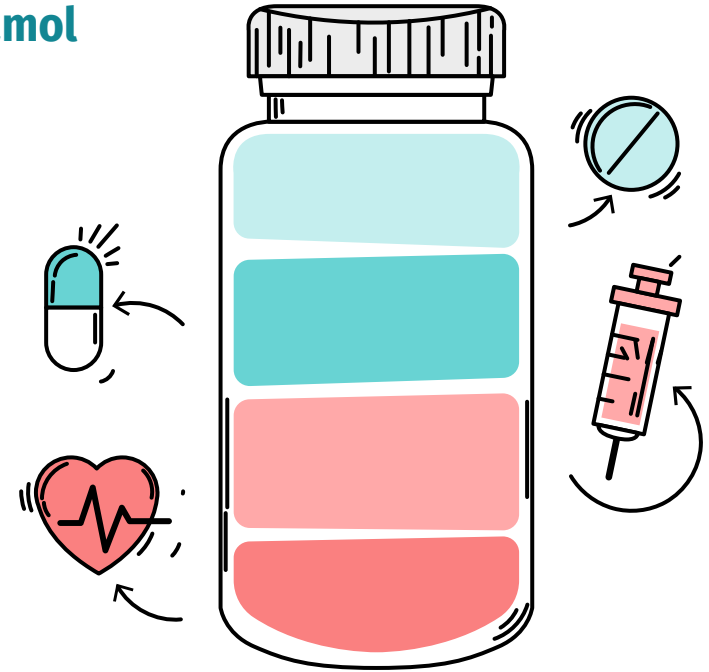
Study Results

Majority of Paracetamol Use

68.4% of children received Paracetamol at home.

Route of Administration

Oral administration was preferred, with **98.9%** of cases.



Common Formulations

Tablets **(49.2%)** and syrups **(38.7%)** were the most commonly used formulations.

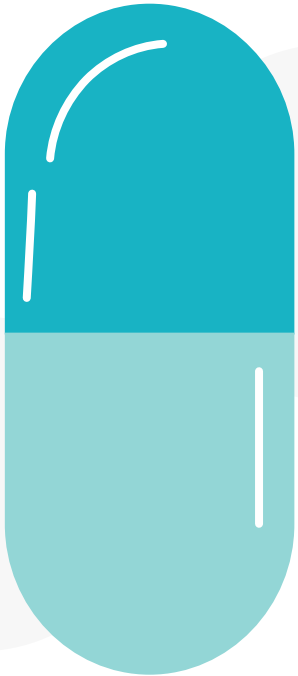
Age and sex distribution of the children

Age of children (years)	Male (%)	Female (%)
Less than 5	90 (67.7)	71 (72.4)
5-10	30 (22.6)	17 (17.3)
11-16	13 (9.7)	10 (10.3)
Total	133 (100)	98 (100)

Reasons for Administering Paracetamol

Symptom Total 231	Frequency (%)
Fever	145 (62.7)
Cough and/or Catarrh	17 (7.4)
Abdominal pain/discomfort	9 (3.9)
Earache	8 (3.5)
Skin rash	6 (2.6)
Generalized body pains	5 (2.2)
Fast/difficulty in breathing	4 (1.7)
Convulsions	3 (1.3)
Others (injury, tooth ache, excessive crying, vomiting)	6 (2.6)
No Response	28 (12.1)
Total	231

Study Results - Caregiver Practices



Self-Prescription:

45.0% of caregivers decided to administer Paracetamol without consulting a healthcare professional.

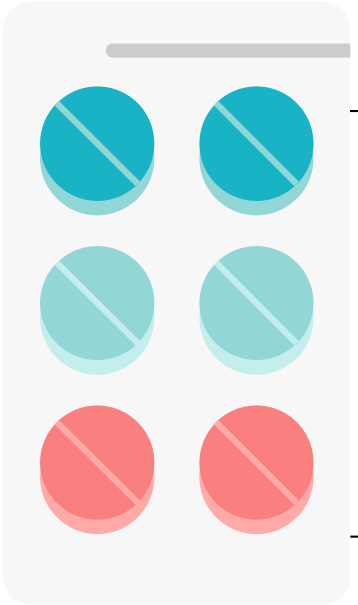
01

02

Dosage Determination

71.2% relied on past experience to determine the dosage for their children.

Study Results - Paracetamol Misuse

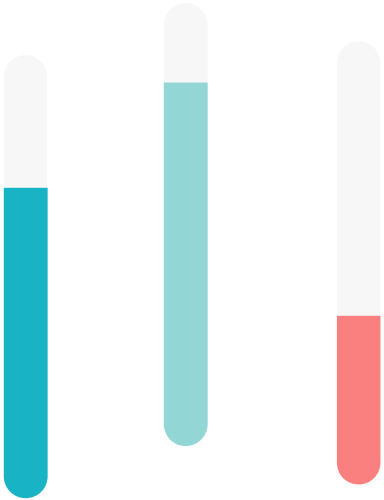


Frequency

Paracetamol misuse was identified in 1.7% of cases.

Age Group Affected

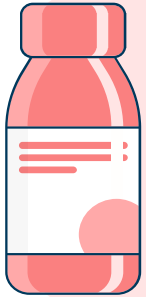
Misuse was more prevalent among infants and young children.



Discussion

(Tahany)

Discussion



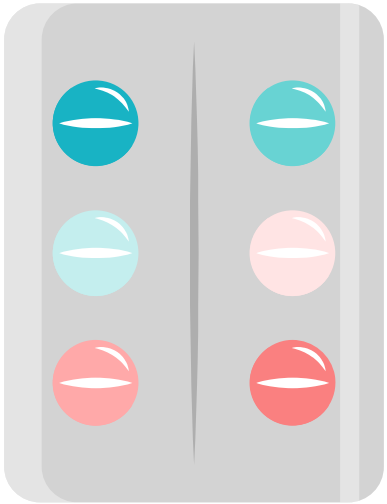
Common Use of Paracetamol

The study highlights the prevalent use of Paracetamol, especially in treating fevers among children. However, available studies do not show clear benefits from this practice. **(Grandins & Gazarian 2006)**

Lack of Evidence for Benefits

Despite the widespread belief among parents and physicians that antipyretic treatment improves children's discomfort and behavior, there is insufficient evidence to support this claim. **(Sheen et al., 2002)**

Discussion



Guidelines and Practices

While WHO guidelines recommend Paracetamol for fevers ≥ 39° C, in practice, it's often administered at lower temperatures without sufficient data to support this. **(Meremiku, 2002)**

Possible Misuse

Much of the Paracetamol administered to children in the study was self-prescribed, suggesting a potential for misuse due to factors like easy accessibility, ignorance, and poverty. **(Meremiku, 2002)**

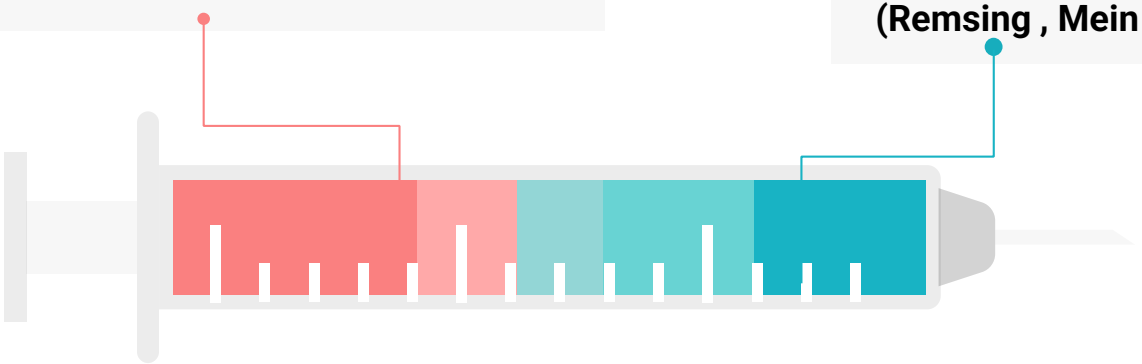
Discussion

Concerns Over Over-the-Counter Drugs

There's a growing concern over the use of drugs like Paracetamol without proper prescription, especially when parents may not be fully aware of the risks. **(Thomas, Prescott, 1966)**

Route of Administration

Oral administration was the most common route for Paracetamol, despite parenteral administration having a more rapid onset of action. **(Remsing , Mein 2002)**



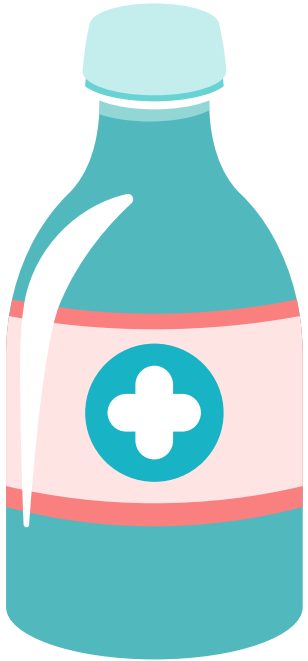
Discussion

Home Treatment of Febrile Illnesses

The study highlights that most childhood febrile illnesses are initially treated at home, underscoring the importance of empowering caregivers with appropriate education.
(Ajayi & Falade 2006)

Adherence to Correct Dosage

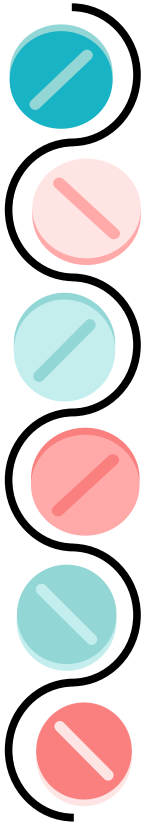
Majority of caregivers administered Paracetamol in correct doses, possibly due to their education and awareness, although hepatotoxicity remains a concern. **(Ajayi & Falade 2006)**



Conclusion

(Arwa)

Conclusion



- Paracetamol is the most widely accessible analgesic and antipyretic, and it is easily obtained from pharmacies by "self-prescription," making it a potential drug of abuse, particularly in minors.
- Objective to identify the dose, formulation, and frequency of Paracetamol administration to children by caregivers, as well as aspects related with its usage and/or abuse.
- A structured questionnaire was used to collect data from 231 children and their caregivers who visited the University of Nigeria Teaching Hospital's pediatric outpatient clinic.
- Misuse was more common among newborns and young children.
- One hundred and thirty-three of the youngsters studied were boys, while 98 were girls.
- The pill formulation was most often used, with the risk of overuse and overdose.
- The most common reason for using Paracetamol pills rather than syrup was because they were more effective.
- Caregivers should be trained about age-appropriate formulations that are less likely to result in overdose.

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Thank you for listening