

A STUDY OF KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING ADMINISTRATION OF PAEDIATRIC DOSAGE FORMS

Stephy Chacko*, Viswam Subeesh, Bellapu Anusha, Vasista Sharma

a. Dept. of Pharmacy Practice, Faculty of Pharmacy, M.S. Ramaiah University of Applied Science, Bengaluru, India

b. Dept. of pediatrics, Ramaiah Hospital, Bengaluru, India

Introduction

- There is a growing distress regarding the use of medicine in children.
- Parental attitude is one of the profound factors that affect medication use and adherence among pediatrics.
- They have direct influence on how illness is treated in childhood.
- Poor health literacy and knowledge on metric system are more common among rural and urban areas in India.
- Therefore many strategies were implemented to improve safe and effective treatment of illness in children.
- The present study aims to assess the knowledge, attitude and practice regarding pediatric medicine administration and health literacy allied to this task.
- A survey has to be conducted in order to explore medication administration by caregivers to pediatrics.
- Children under 16 years were chosen as a target population.
- Parental attitude towards medicine use were explored, since children's medicine use at this age is still controlled by the parents and their attitudes influence actual medicine use by children.

Need for the study

- Parental attitudes have an effect, not only on their own medicine use, but also on the medicine use of their children.
- They have a direct influence on how illnesses are treated in childhood.
- Administration of pediatric medicines varies from typical adult medicine dosing. Children have to depend on their caregivers for their medication.
- In addition, they are often fed liquid medicines, the dosing of which requires more time and care than the administration of tablets or capsules.
- Proper dosage forms for children, keeping in mind quality, palatability, and ease of administration are often lacking.
- Where they do exist, inability on the part of caregivers to exercise due diligence may lead to imprecise dosing and medication errors.
- However, caregivers often do not realize the precision of pediatric formulations, and it is quite likely that medication errors occur in pediatric practice, which may contribute toward treatment failure, development of antimicrobial resistance, or even harm to the child.
- Caregivers follow some potentially wrong practices like adding medicine to milk, re-dilution of reconstituted medicine & storing beyond the recommended period.

Result

- A total of 149 caregivers were enrolled in the study. Majority of the primary caregivers surveyed were degree holders (38.7%) and completed primary education (31.3%).
- 64% and 82.7% were unaware about 1 teaspoon and 1 tablespoon dosing respectively.
- Caregivers frequently reported stoppage of medicines once the child feels better (50%) and vomiting of medicines (68%).
- Crushing/dissolving of solid oral dosage forms and mixing with milk were the most frequently reported methods of administration.
- 34.9% caregivers reported use of non-standardized liquid dosing instruments. Medication errors were reported significantly more in the outpatient setting.

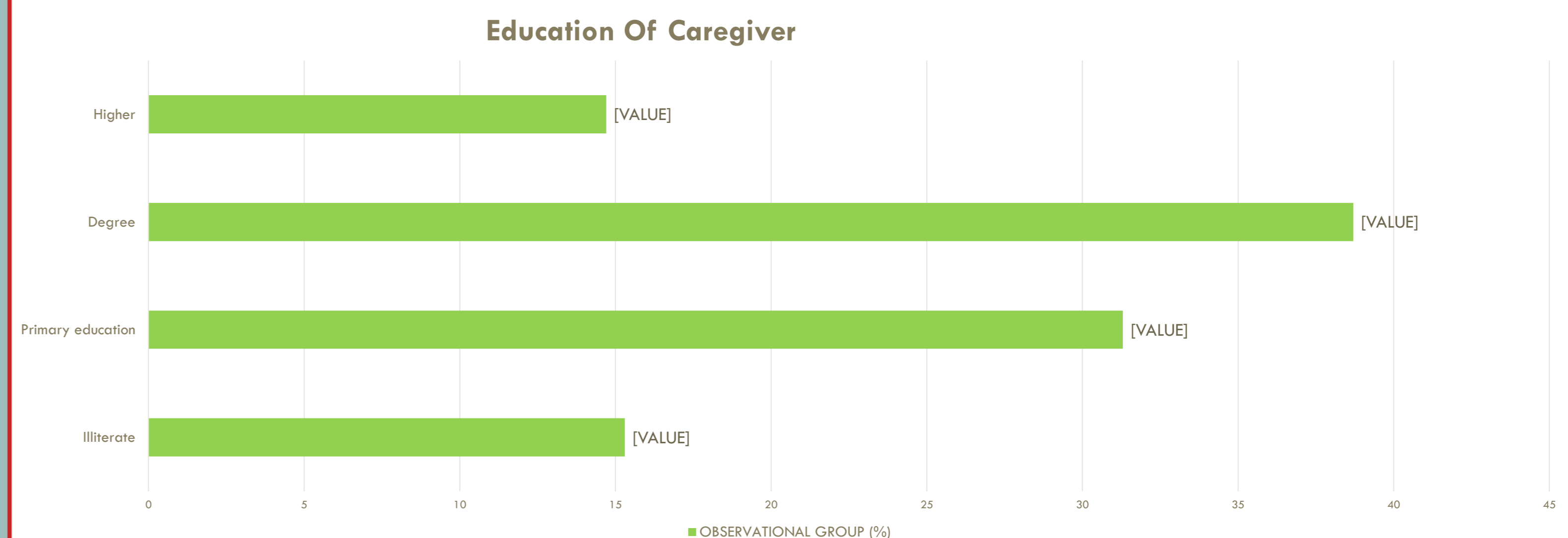


Fig: education of the study group

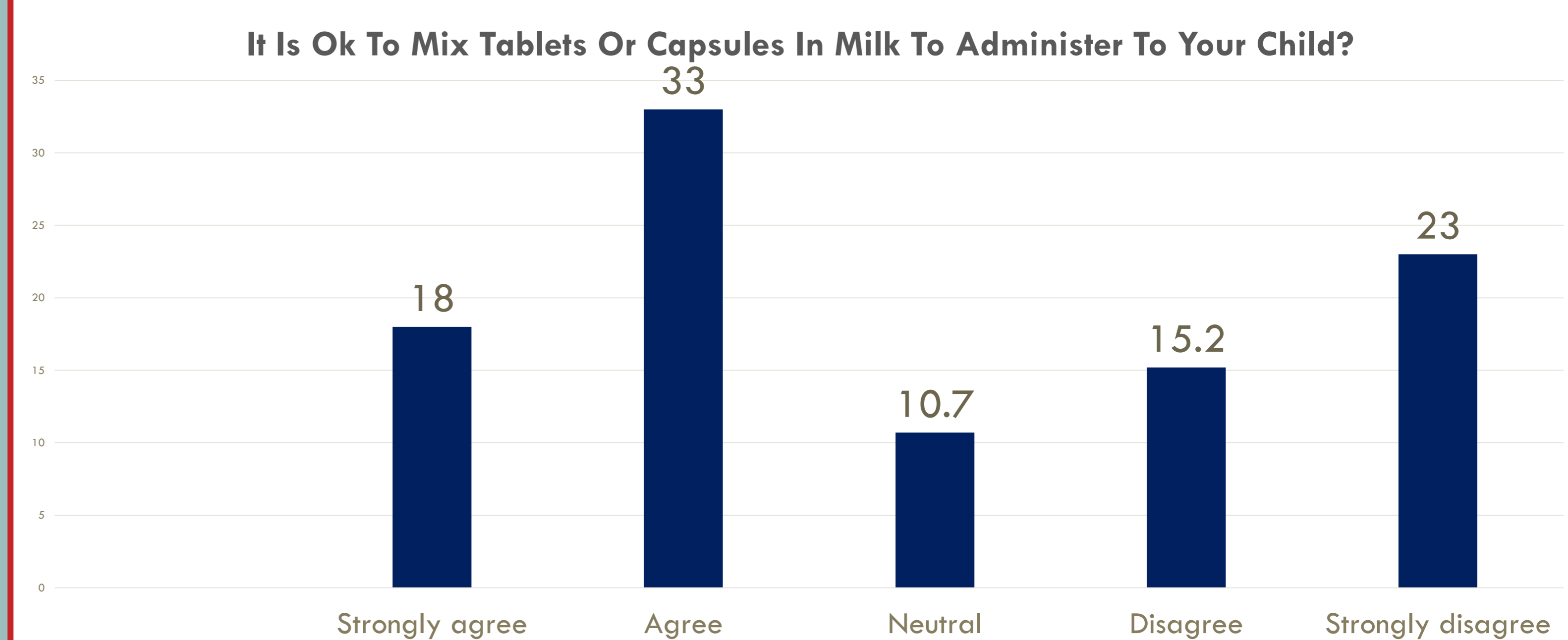


Fig: Assessment of Practice among Caregivers' regarding the Devices used to Administer Medications

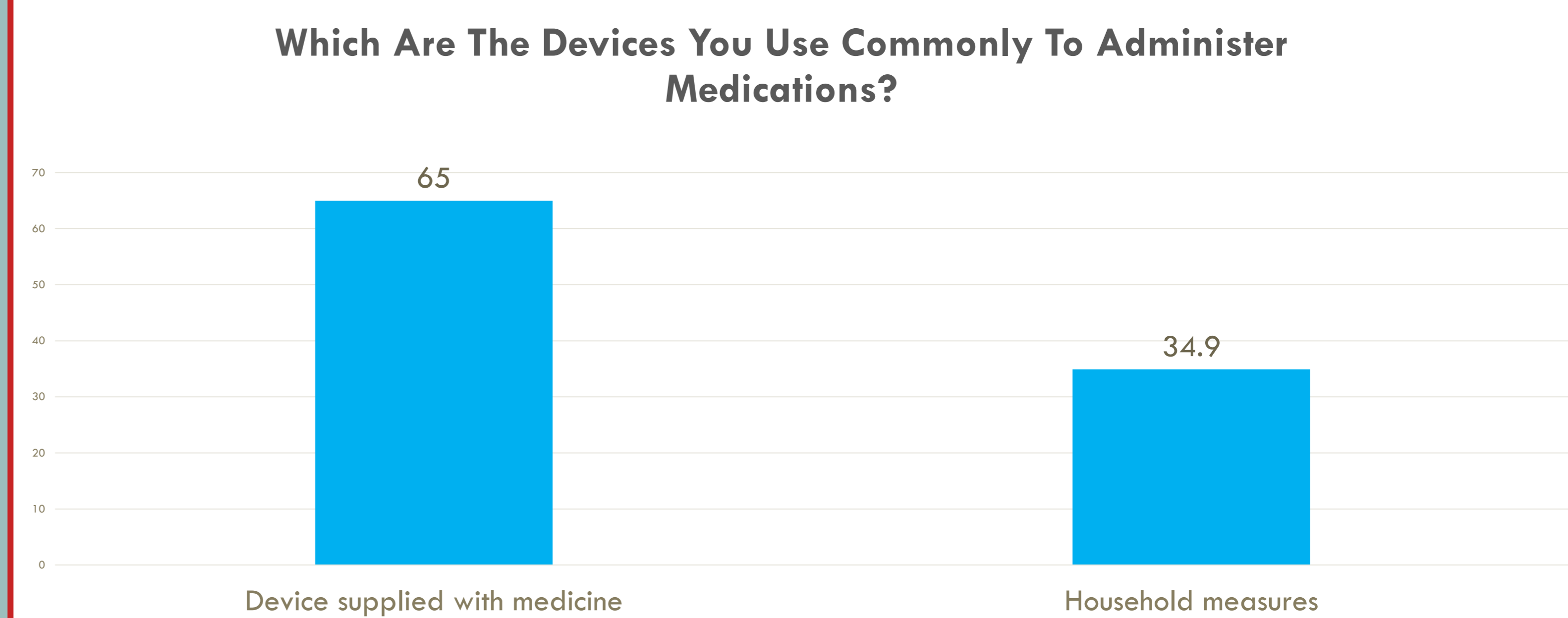


Fig: Assessment of Practice among Caregivers' regarding the Devices used to Administer Medications

Conclusion

- The caregivers of pediatric population had poor knowledge regarding medicine administration and measurement of dosage forms. Majority of the caretakers are also unaware of the need to follow dosage duration as prescribed by the doctor.
- Basic and Important aspects of the drugs like storage instructions, checking the active ingredients on the label, instructions on how to use them should also be given utmost importance during counseling in the OPD.
- Therefore it is needed to conduct a study to assess the knowledge, attitude, and practices of caregivers regarding medicine administration to pediatrics.

Reference

- Adams, L.V., Craig, S.R., Mmbaga, E.J., Naburi, H., Lahey, T., Nutt, C.T., Kisenge, R., Noel, G.J. and Spielberg, S.P., 2013. Children's medicines in Tanzania: a national survey of administration practices and preferences. *PLoS One*, 8(3).
- Mukattash, T., Hawwa, A.F., Trew, K. and McElnay, J.C., 2011. Healthcare professional experiences and attitudes on unlicensed/off-label paediatric prescribing and paediatric clinical trials. *European journal of clinical pharmacology*, 67(5), pp.449-461.

Contact Us

stephyjulie@gmail.com 91 9739914157
vasistaparasara1969@gmail.com