

Pan – India study on user perspectives of minitables for paediatric treatments

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1 Problem

There is limited evidence-based data available on acceptability of minitables, particularly concerning the size and number of minitables, ease of handling, ease of administration and choice of packaging. Additionally, whether there are differences in user opinions based on socio-economic status, health condition, or level of experience.

2 Solution

Closing this knowledge gap by building evidence base on acceptability of minitables in children and providing further guidance on user perspectives and identify the challenges in uptake of these new dosage forms by policy makers in low- and middle-income countries (LMICs)

3 Drive

Minitables have received positive opinion in pharmaceutical industry and regulatory bodies, as one of the promising formulation choices for children's medicines. Positive research outcomes in patient acceptability are published in recent years.

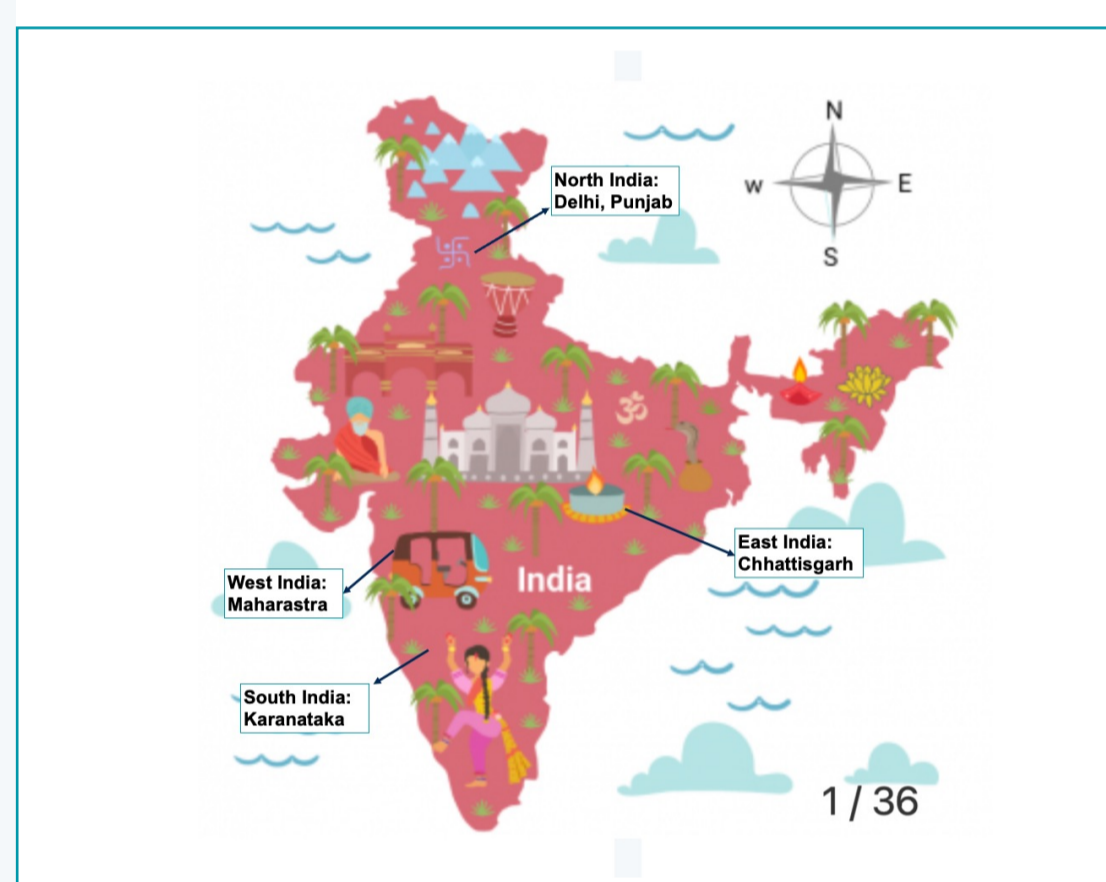
Aims

To investigate user perspectives from LMICs on using minitables versus conventional tablets for paediatric treatments

Methodology

1. Study Design

Descriptive cross-sectional pan-India study was conducted with parents of children aged between 0 to 12 years using a paper-based survey.



Parents were recruited from **North, West, East and south** zones of India from hospitals and school setting.

2. Study Site

East India: Career Point School, CIMS Chhattisgarh.
South India: Cloud nine Hospital, Bangalore.
West India: Bharati Vidyapeeth College and Hospital, Pune.
North India: Delhi public School, NIPER Mohali

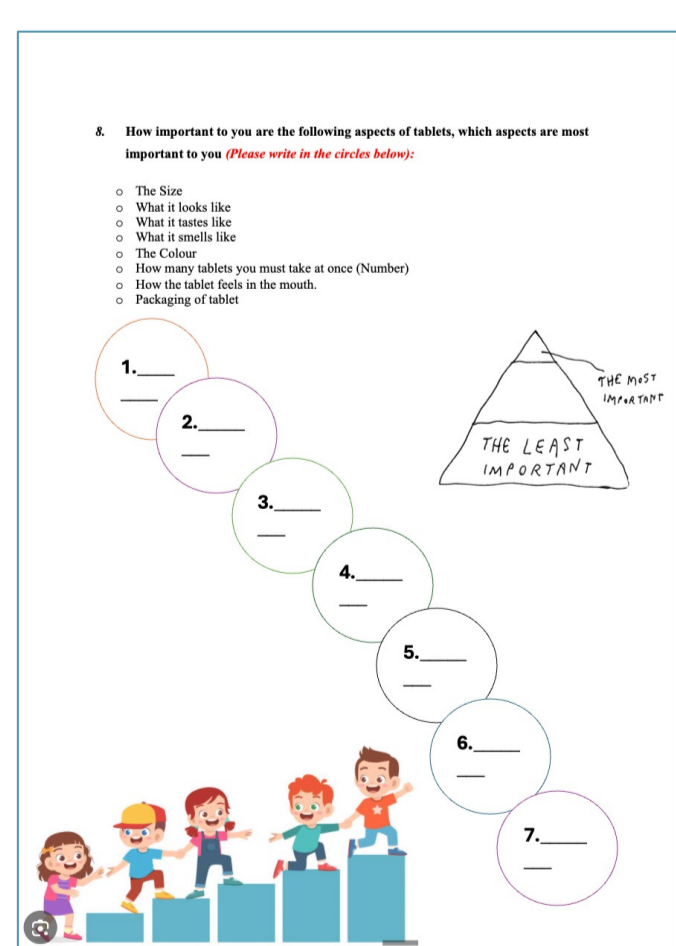
3. Inclusion/Exclusion criteria

Parents/ Caregivers of Children aged between 0-12 years. Children aged 5 – 12 years.

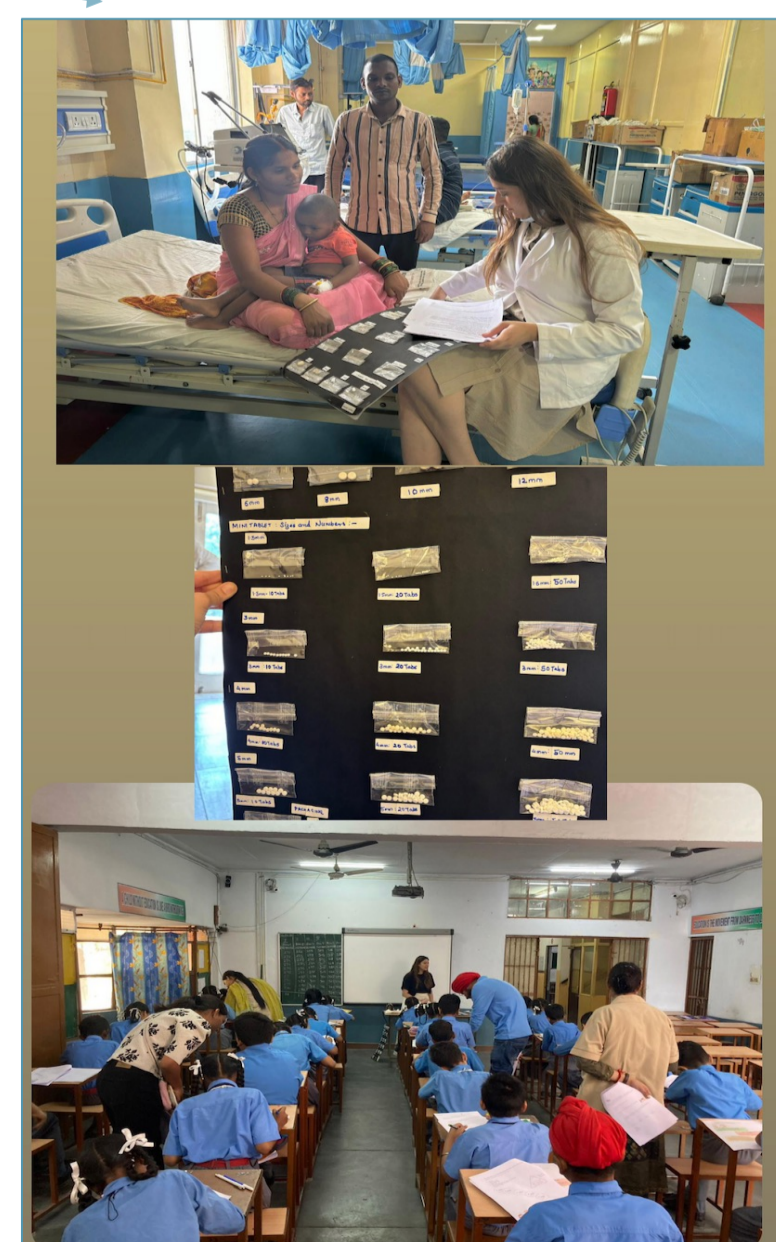
Sufficient fluency in English/Hindi to be able to understand and engage in the study

4. Data Collection

Collected feedback about various user aspects: socioeconomic status, health condition, perceived swallowability wr.t to number and size, types of minitables (e.g.: oro-dispersible etc), administration methods, choice of packaging, ease/comfort of handling minitables and willingness to use minitables over conventional tablets



Responses were acquired utilizing a variety of participation strategies, including drawing, activity sheets

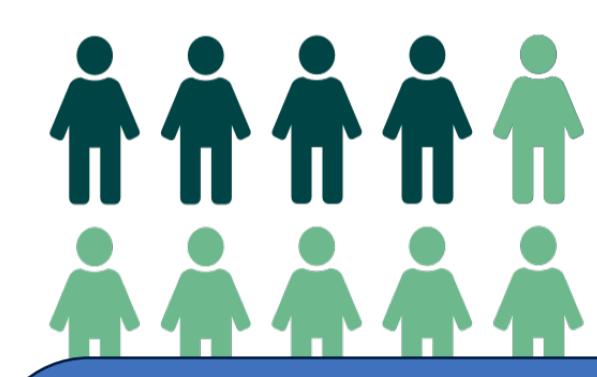


Results

A total of 60 parents participated in the study, with 45% recruited from hospitals and 55% from school settings. Of these participants, 52% were from the upper-middle class, while 48% belonged to the lower-middle class. Parents participated on behalf of their children, 45% of whom were healthy or had acute illnesses, while 55% had chronic illnesses.



60% parents reported using liquids, primarily for 1-8 years olds



40% reported taking solid dosage forms such as tablets for children aged 2-11 years

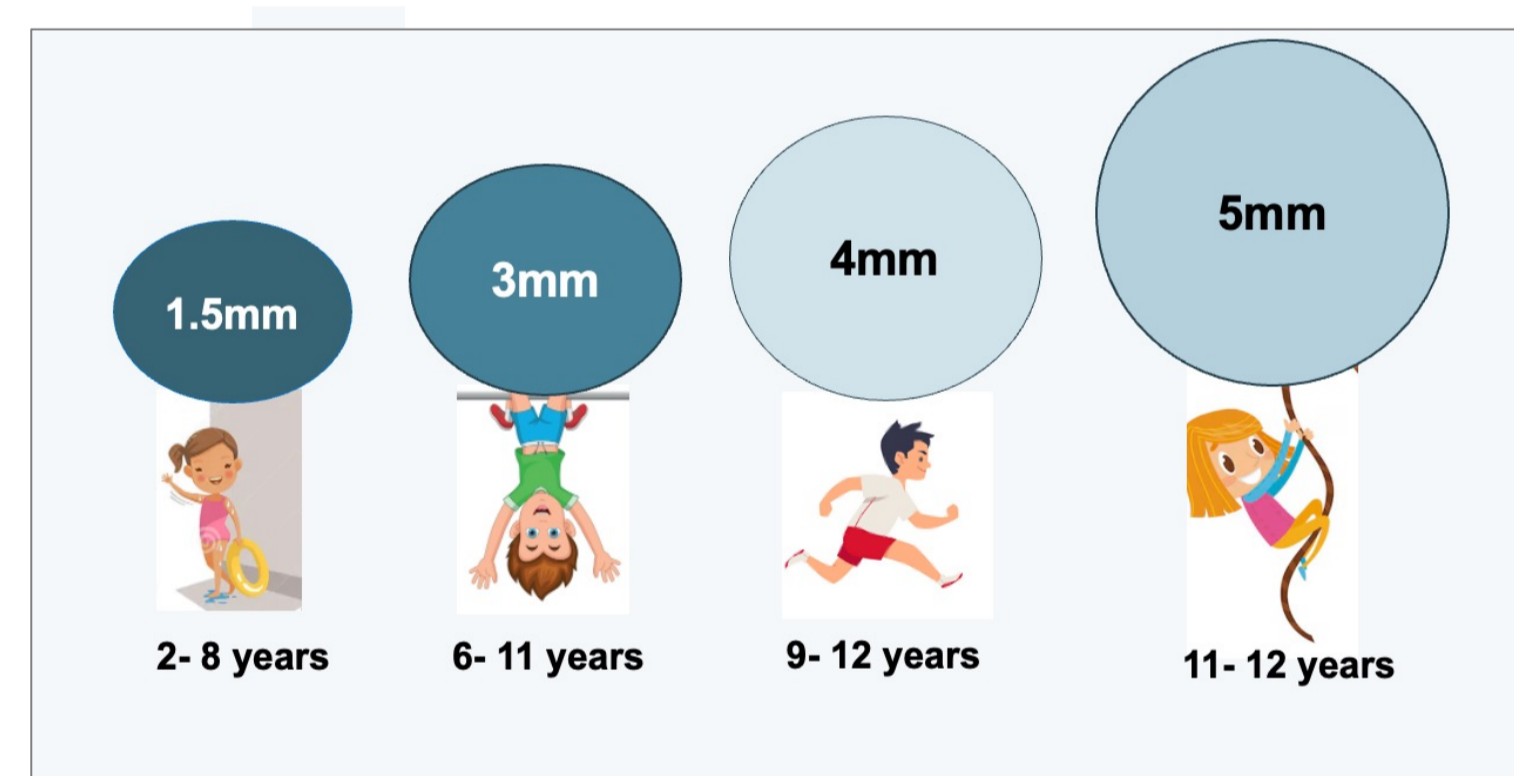


40% of parents reported they or their children had previously seen or given minitables



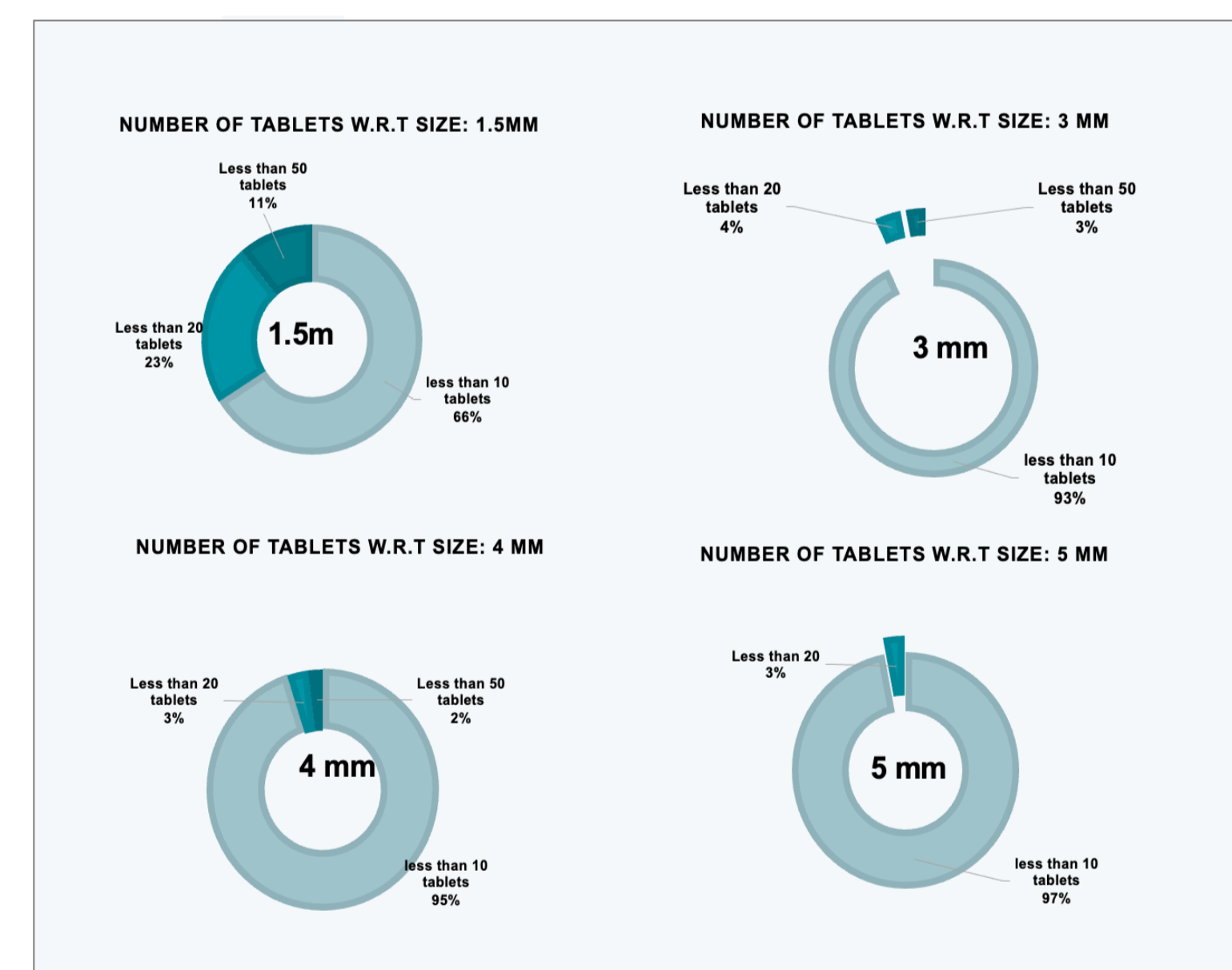
60% parents preferred giving less than 10 minitables of 1.5mm at once

1. Acceptability of minitables w.r.t Size and Age



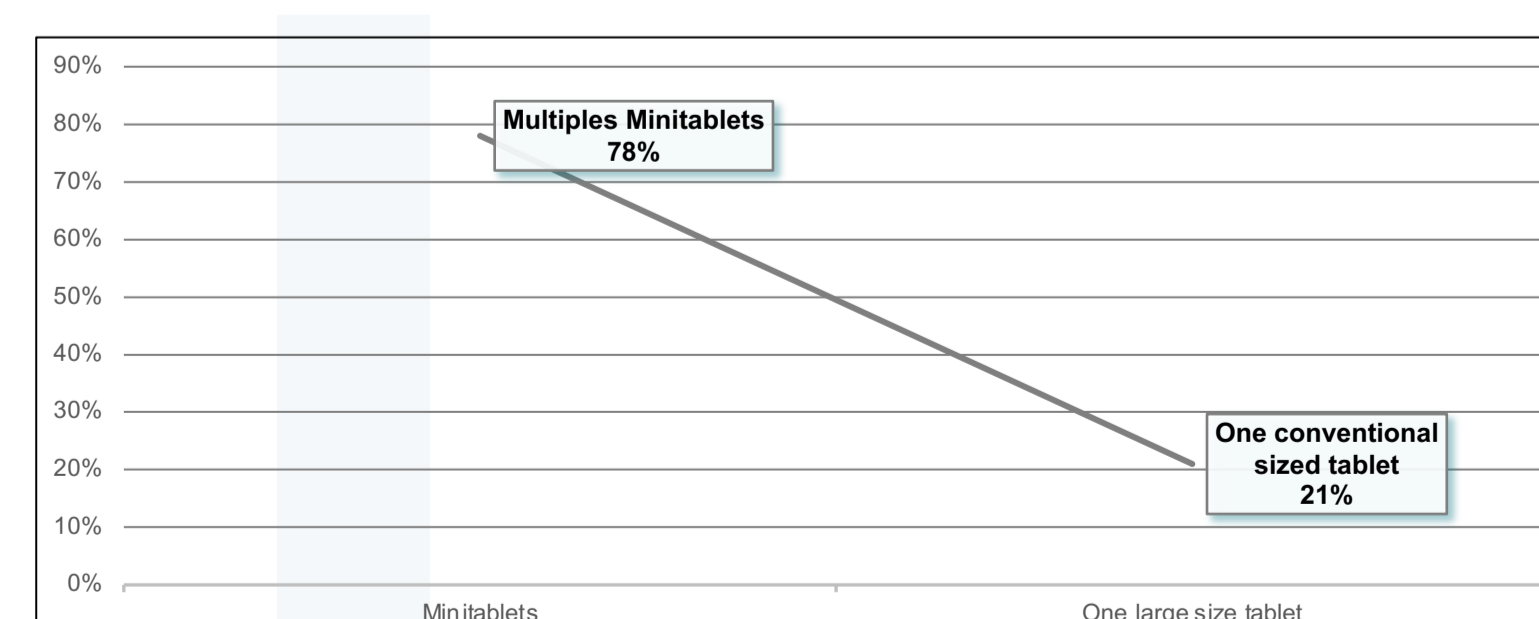
The willingness to administer minitables was found to decrease with increase the size.

2. Perceived number of tablets w.r.t size

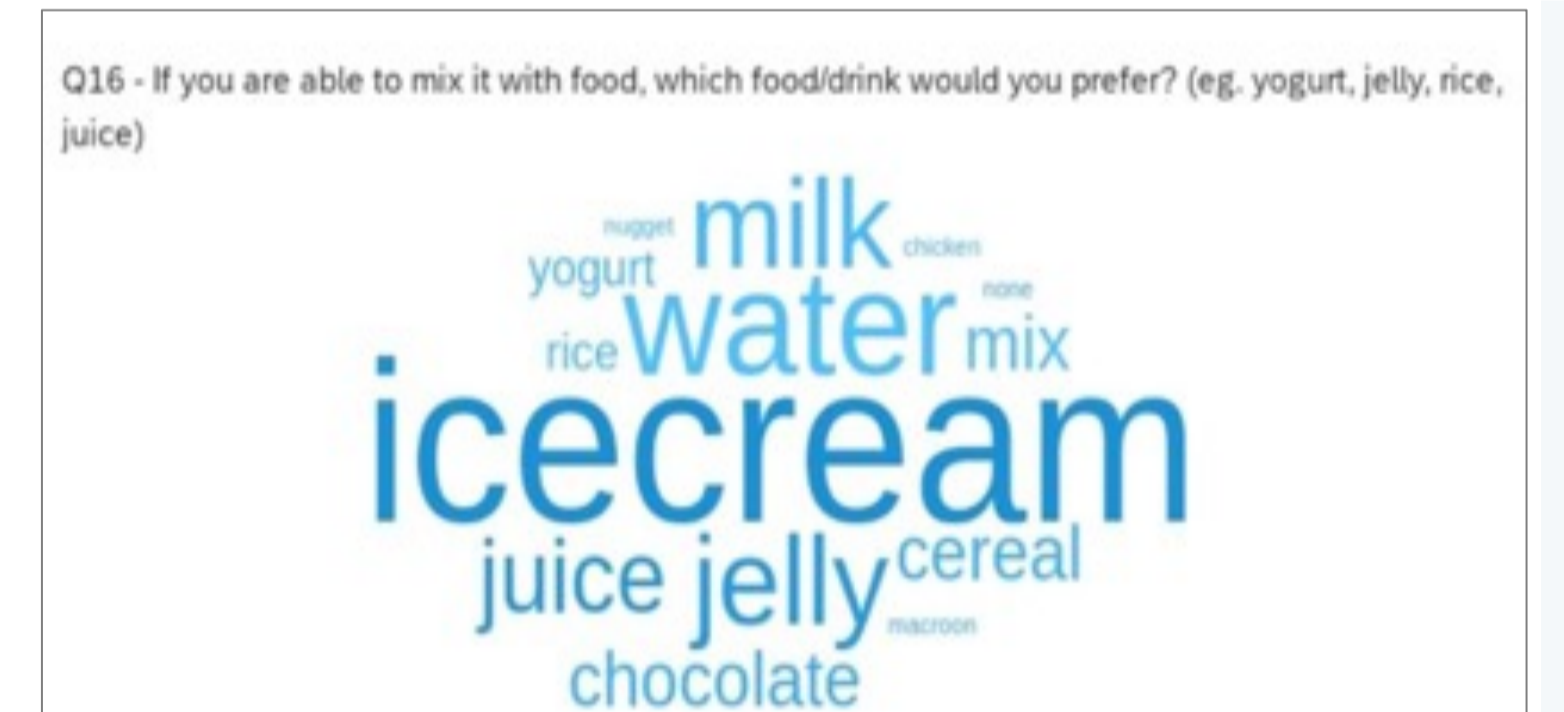


Majority showed willingness to administer less than 10 tablets of all sizes. The most popular choice was less than 10 tablets of 3mm at once.

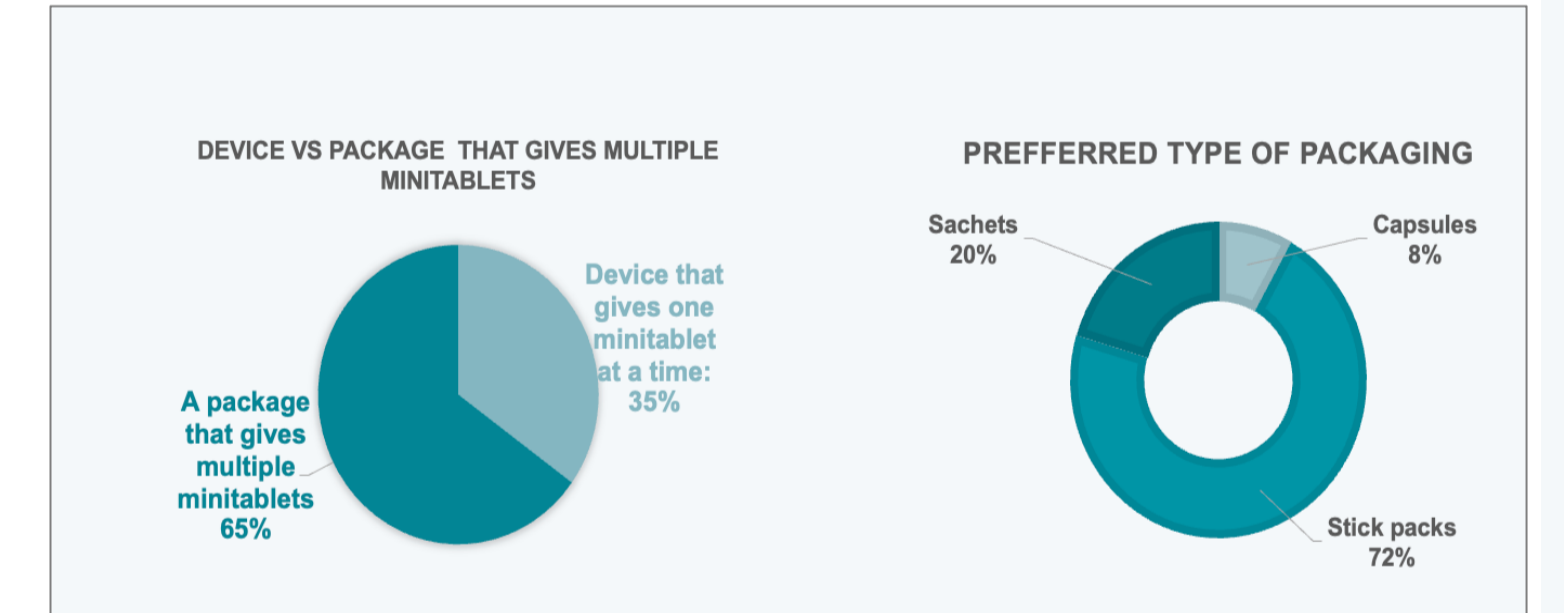
3. Minitables vs. Conventional tablets



4. Preferred soft foods for dosing

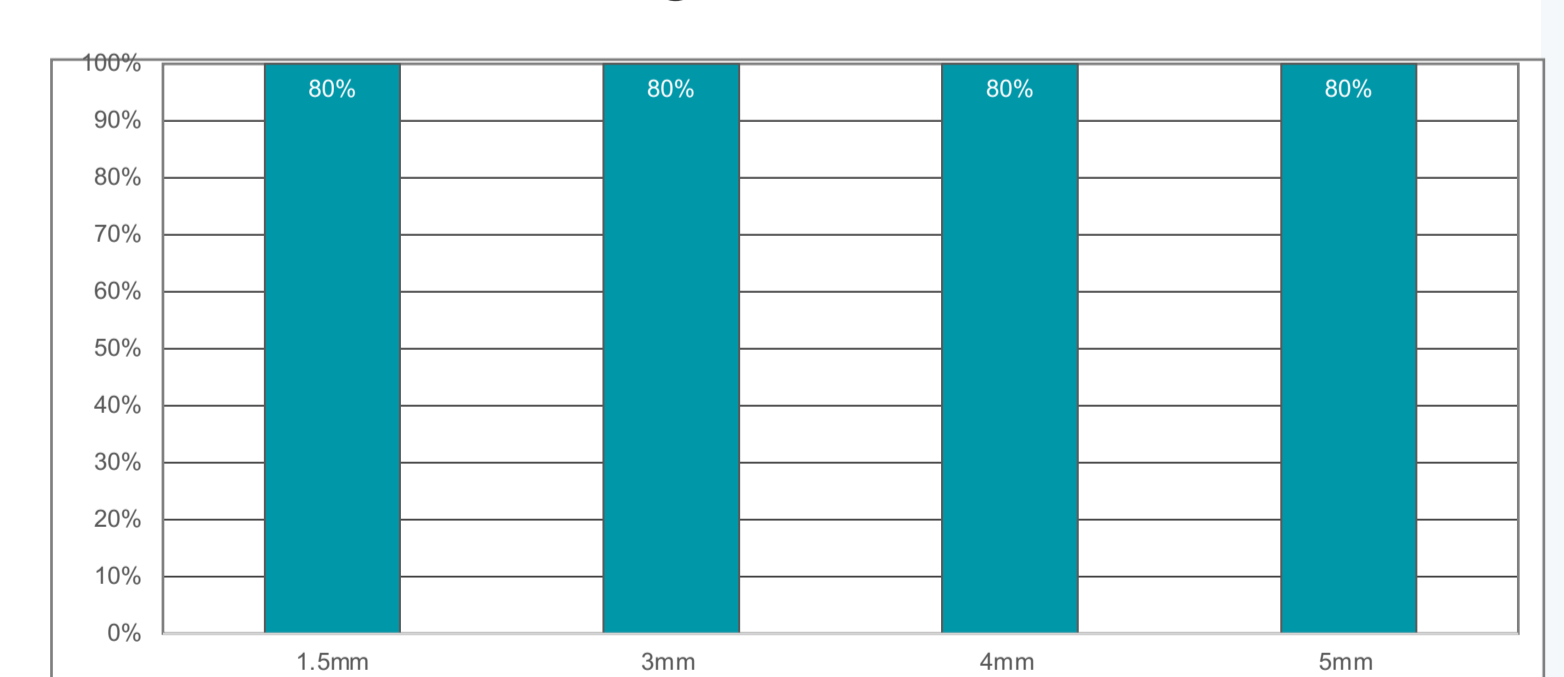


5. Preferred packaging for minitables



Stick packs were the preferred choice of packaging for minitables.

6. Ease of Handling Minitables w.r.t size



30% of parents reported difficulty with 1.5mm tablets; while all other sizes were described to be easy to handle.

7. Unique Study Findings:

1. Diseases such as **Thalassemia** and **Sickle Cell Anaemia** were commonly found in the eastern region of India.

2. More than 50% of parents from **lower-income background** employed **manipulation strategies to encourage their children to take medicine**, while more than 80% of parents from high income background said that their **children eventually take tablets** after some initial resistance.

Conclusion

This study underscores that the acceptability of dosage forms is multifaceted. Factors such as tablet size, the number of minitables to be administered at once, the child's health condition, packaging design, and ease of handling minitables outside the package are pivotal in shaping preferences and practices. Socioeconomic status and parental education played a role in medication administration strategies. The pilot phase of this research identified significant gaps in survey methodology, particularly in effectively correlating tablet characteristics with tablet number and size, the use of food, association between all these parameters in relation with socioeconomic status as well as treatment experience. Moving forward, revisions to the questionnaire are essential to accurately capture these correlations. Future plans include expanding the study to encompass LMICs, conducting a comprehensive survey across India, other LMICs, and European nations. This expanded scope aims to compare responses from parents, caregivers, and children, thereby deepening our understanding of paediatric preferences and fostering advancements in minitab administration and manufacturing practices.

