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Nurses perception of Intravenous medication administration errors in paediatrics

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INTRODUCTION

Paediatric nurses activities are challenging and require constant vigilance in providing quality care to paediatrics. Continuous upgrading of knowledge is required to maintain the appropriate care and diligence in assessment of the patient and parenteral concerns. Intravenous (IV) medication administration is more error prone than other routes and a substantial proportion of medication administration errors (MAEs) occur in hospitalised paediatric patients due to the greater complexity in dosing and administration.[1]

AIMS

To identify difficulties encountered in IV medication administration, to assess the perception of nurses about factors that contribute to MAEs and to investigate possible preventive measures.

METHOD

The methodology was divided in three phases (Figure 1):

- Literature research was conducted to identify factors and scenarios that contribute to MAEs in paediatric patients for the questionnaire (Figure 1).
- A Focus group consisting of 6 paediatric nurses was held to discuss factors leading to medication errors, difficulties encountered in administration practice and scenarios that would impact safe medication administration.
- A questionnaire entitled "Assessment of administration practice" was developed and validated using DELPHI method and distributed to nurses working in paediatric wards.
- Nurses were asked to assess the impact of contributing factors and encountered difficulties on the safety of IV medication administration and to identify preventive measures related to MAEs.

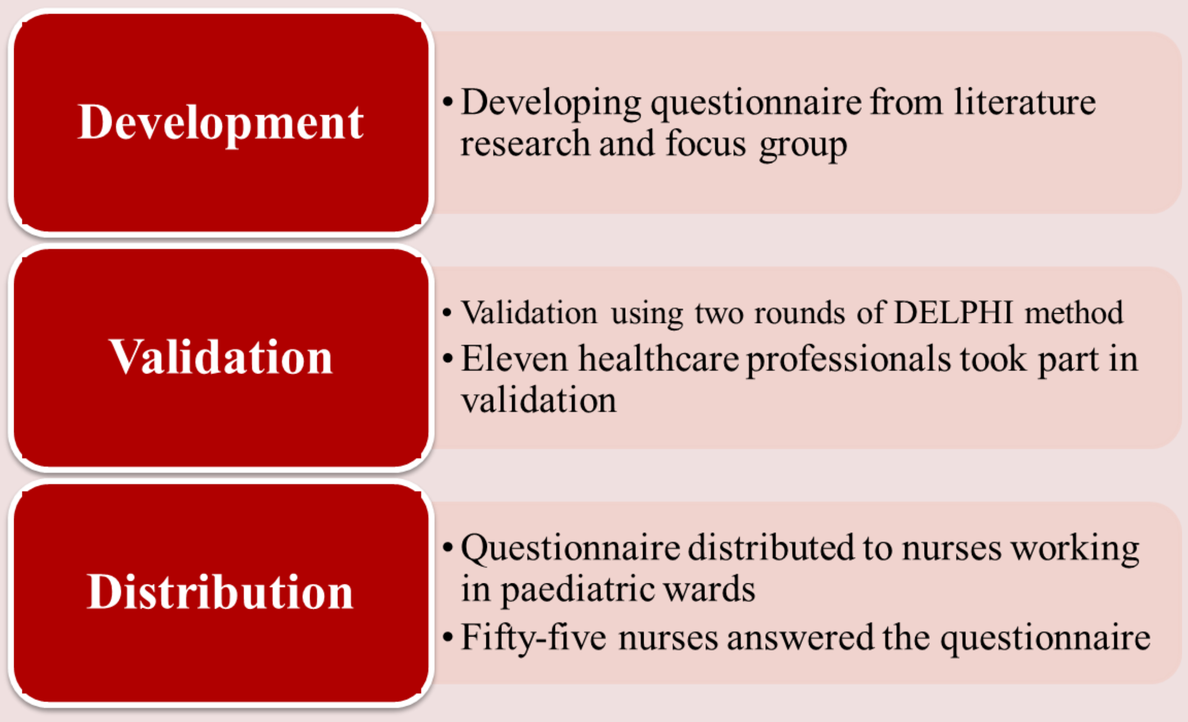

Fig 1. Steps of Methodology

RESULTS

- Fifty-five paediatric nurses participated in the study. The main difficulties encountered in the IV administration practice were reconstitution and dilution practice (n=40) and choice of compatible fluids when preparing an IV medication (n=40) (Figure 2).
- Insufficient knowledge about IV medications and their administration (n=49), lack of specialised training in paediatric nursing (n=49), lack of accessibility to a pharmacist during shift (n=45) and lack of availability of a standard guide for administration (n=43) were rated as the highest (>4) contributing factors for MAEs (Figure 3).
- Need for specialised training in IV medication preparation and administration (n=36), pharmacological education (n=36) and use of a standard guide for IV administration (n=32) were identified as preventive measures related to MAEs.

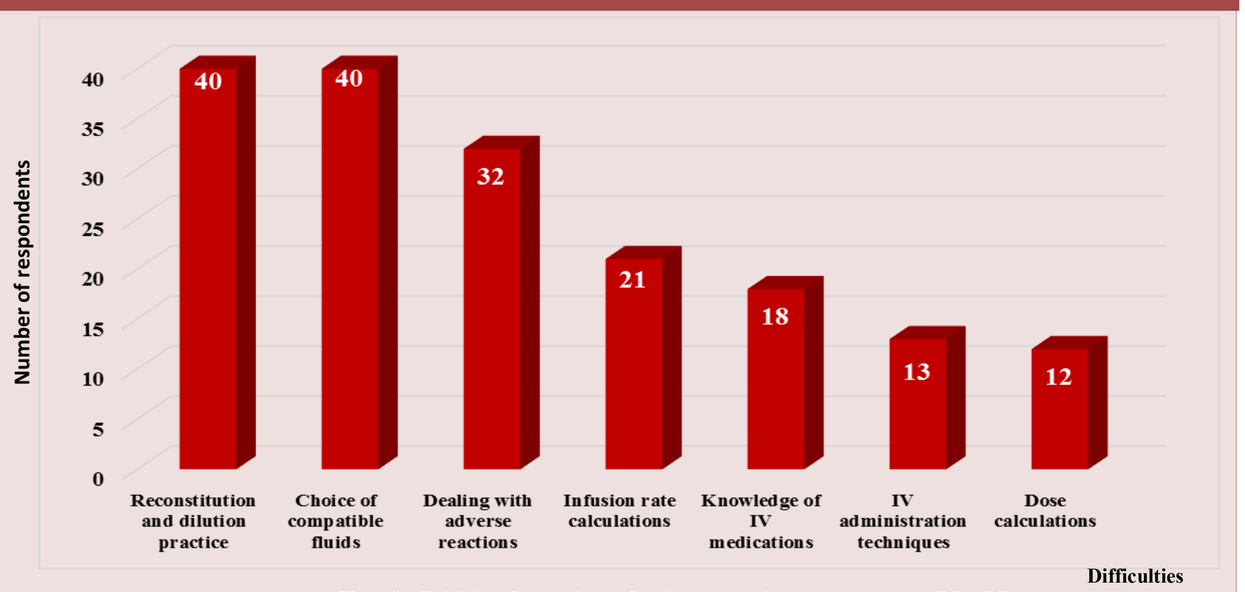

Fig 2. Difficulties in administration practice (N=55)

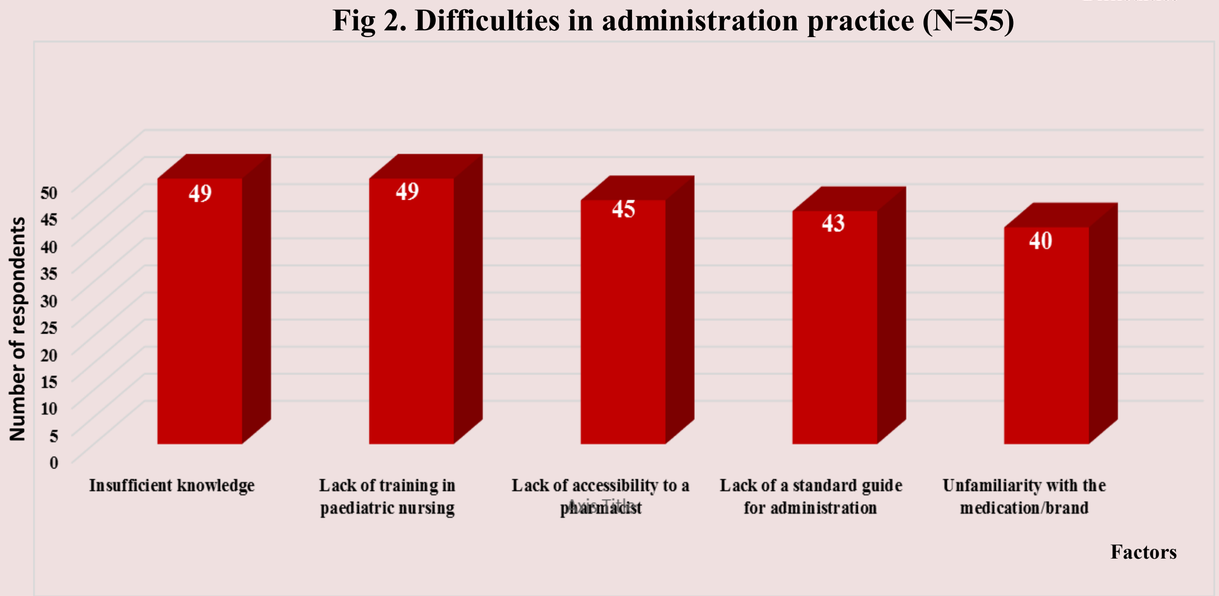

Fig 3. Contributing factors to medication errors (N= 55)

CONCLUSION

Developing a standard guidance for administration of IV medication in paediatric patients and introducing regular educational sessions may contribute to reduce preventable MAEs.

REFERENCES

1-Agency for Healthcare Research and Quality Patient Safety network. Medication Administration Errors [Internet]. Rockville: US Department of Health and Human Services; September 2018 [cited 2018 Nov 14]. 3p. Available from: https://psnet.ahrq.gov/primers/primer/47