



# **ASSESSMENT OF PAIN IN CHILDREN: KNOWLEDGE AND PRACTICE OF HEALTHCARE PROVIDERS AT A TERTIARY CENTRE, SOUTHERN NIGERIA**

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# BACKGROUND

## **Pain:**

- An unpleasant sensory and emotional experience associated with actual or potential tissue damage
- Whatever the patient says it is, and exists whenever he or she says it does

# BACKGROUND

- Pain is one of the major reasons why children present to healthcare facilities
- So prevalent, some recommend it becomes the 5<sup>th</sup> vital sign – RR, PR, T, BP, Pain
- It is however, inadequately assessed and undertreated worldwide

# BACKGROUND

- *Good pain control: one of the factors that can make a great positive impact on the patient's hospital experience*
- Pain Relief: universal human right, an ethical issue
- Inadequate pain control: adverse outcomes, negative long term effects

# BACKGROUND

- Pain is a subjective sensation
- Can be described according to several relevant features or attributes, such as quality, location, intensity, frequency, emotional impact among others
- Intensity is recognized as one of the most relevant clinical dimension of the pain experience

# BACKGROUND

- A systematic, routine pain assessment using standardized, validated measures is now considered to be the foundation of effective pain control for patients regardless of age, condition or setting
- Good pain assessment: cornerstone for good pain management

# Assessing pain: QUESTT principle

- **Q**uestion the child and parent
- **U**se pain rating scales
- **E**valuate behaviour, physical findings, physiologic changes
- **S**ecure parent's involvement
- **T**ake the cause of the pain into consideration
- **T**ake action and evaluate results

# Non-verbal, GCS <15 or Cognitive Impairment

## Pain Assessment Tools Neonatal/Infant Pain Scale (NIPS)

(Recommended for children less than 1 year old) - A score greater than 3 indicates pain

<b>Pain Assessment</b>		<b>Score</b>
<b>Facial Expression</b>		
0 – Relaxed muscles	Restful face, neutral expression	
1 – Grimace	Tight facial muscles; furrowed brow, chin, jaw, (negative facial expression – nose, mouth and brow)	
<b>Cry</b>		
0 – No Cry	Quiet, not crying	
1 – Whimper	Mild moaning, intermittent	
2 – Vigorous Cry	Loud scream; rising, shrill, continuous (Note: Silent cry may be scored if baby is intubated as evidenced by obvious mouth and facial movement.	
<b>Breathing Patterns</b>		
0 – Relaxed	Usual pattern for this infant	
1 – Change in Breathing	Indrawing, irregular, faster than usual; gagging; breath holding	
<b>Arms</b>		
0 – Relaxed/Restrained	No muscular rigidity; occasional random movements of arms	
1 – Flexed/Extended	Tense, straight legs; rigid and/or rapid extension, flexion	
<b>Legs</b>		
0 – Relaxed/Restrained	No muscular rigidity; occasional random leg movement	
1 – Flexed/Extended	Tense, straight legs; rigid and/or rapid extension, flexion	
<b>State of Arousal</b>		
0 – Sleeping/Awake	Quiet, peaceful sleeping or alert random leg movement	
1 – Fussy	Alert, restless, and thrashing	



# Non-verbal, GCS <15 or Cognitive Impairment (> 1 yr and < 4 yrs): FLACC

## • FLACC Behavioural Pain Assessment Scale

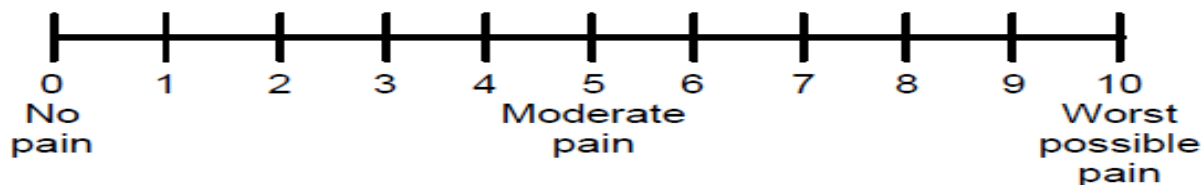
Categories	Scoring		
	0	1	2
<b>Face</b>	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant frown, clenched jaw, quivering chin
<b>Legs</b>	Normal position or relaxed	Uneasy, restless, tense	Kicking, or legs drawn up
<b>Activity</b>	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid, or jerking
<b>Cry</b>	No cry (awake or asleep)	Moans or whimpers, occasional complaint	Crying steadily, screams or sobs, frequent complaints
<b>Consolability</b>	Content, relaxed	Reassured by occasional touching, hugging, or being talked to, distractable	Difficult to console or comfort

# Verbal, Alert and Oriented (> 4 yrs)

Wong-Baker FACES® Pain Rating Scale



0–10 Numeric Pain Rating Scale



# BACKGROUND

- Literature demonstrates that pain management is often dependent on the attitudes and beliefs of health care practitioners
- Inadequate knowledge and attitudes of pain assessment in children: one of the notable areas of weakness in paediatric pain management

# OBJECTIVE

To determine the knowledge and practice of healthcare providers towards assessment of pain in children at a tertiary hospital in southern Nigeria

# METHODOLOGY

## Nigeria

- population: 182,201,962 (2015)
- 0.40 physicians/1,000 inh (2010)



## Palliative Care:

- In urban areas, mostly at tertiary hospitals, at various stages of development
- 17 hospices or PC services
- 10/17 (59%) offer paediatric-specific programmes
- National Cancer Control Plan 2018-2022:
  - Goal 2: Treatment of cancer
  - Goal 3: Palliative Care

# METHODOLOGY

## Rivers State:

- Under-15 population: 2,437,196
- Heart of the hydro-carbon industry



## University of Port Harcourt Teaching Hospital:

- 800 bedded facility
- Reference cancer center in the Niger Delta region- an oil producing area with petroleum exploration and exploitation activities
- serves patients from within Rivers State and neighbouring states

# METHODOLOGY

- Cross-sectional study in August 2017, using a semi-structured, self-administered questionnaire for data collection
- Convenient sample of physicians and nurses attached to clinical departments/units caring for children, and those in educational units obtained
- Chi-square used to compare responses of doctors and nurses to each question at a 95% confidence interval
- Data analysed with SPSS version 20.0
- Ethical Approval was obtained from the Ethics Committee of the UPTH and informed consent from all participants

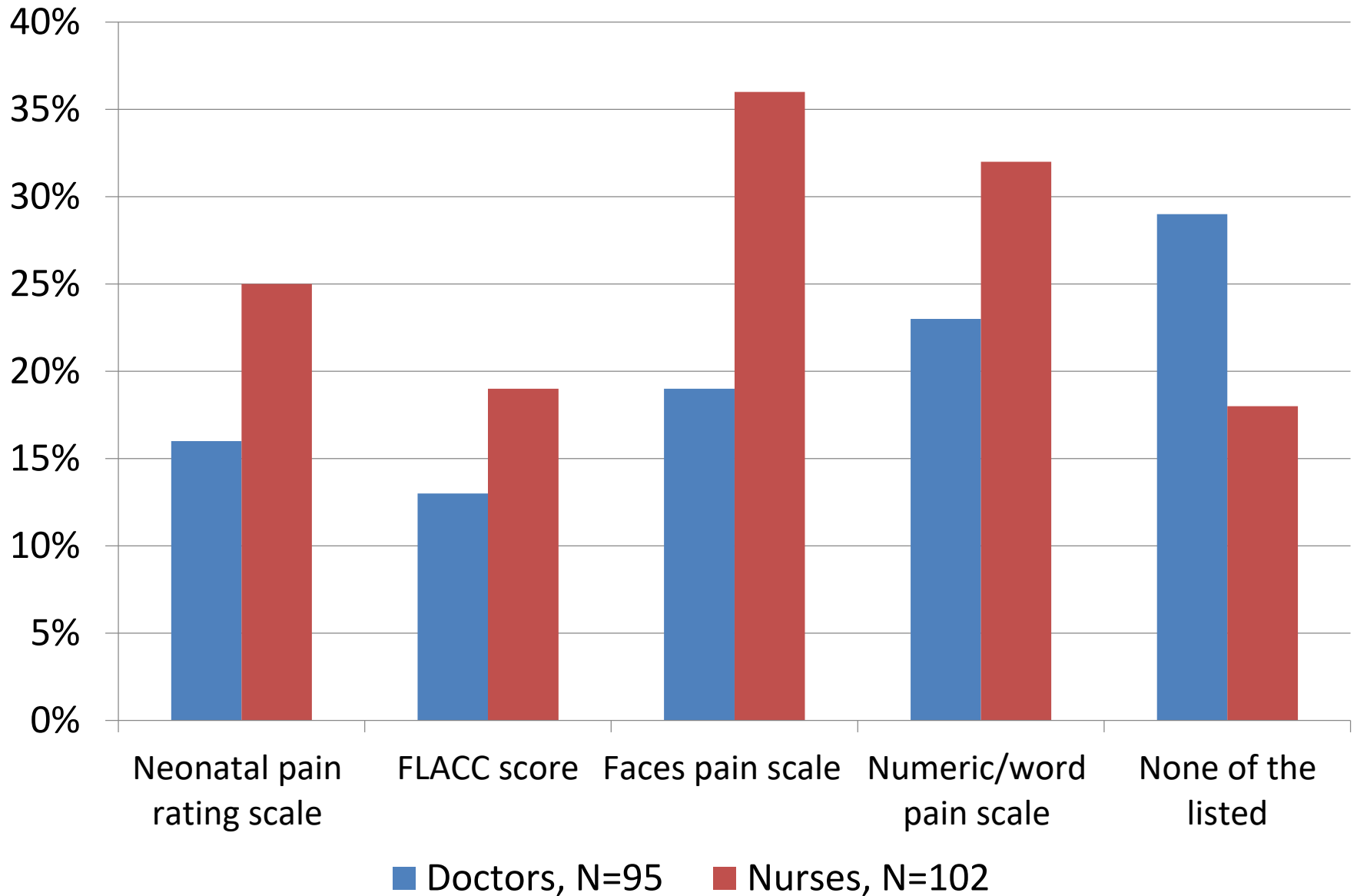
# RESULTS

- Participants: 95 medical practitioners and 102 nurses of various cadres
- Their working units were: Departments of
  - Paediatrics
  - Surgery (Paediatric Surgery, Burns and plastics, Orthopedics, Ophthalmology)
  - Paediatric Dentistry
  - Nursing services (Ward Nurses, Nurse Tutors and Nurses in the Post Basic Nursing Education Unit)
- Majority (33.5%) of them had 5-10 years work experience while 25% had more than 15 years



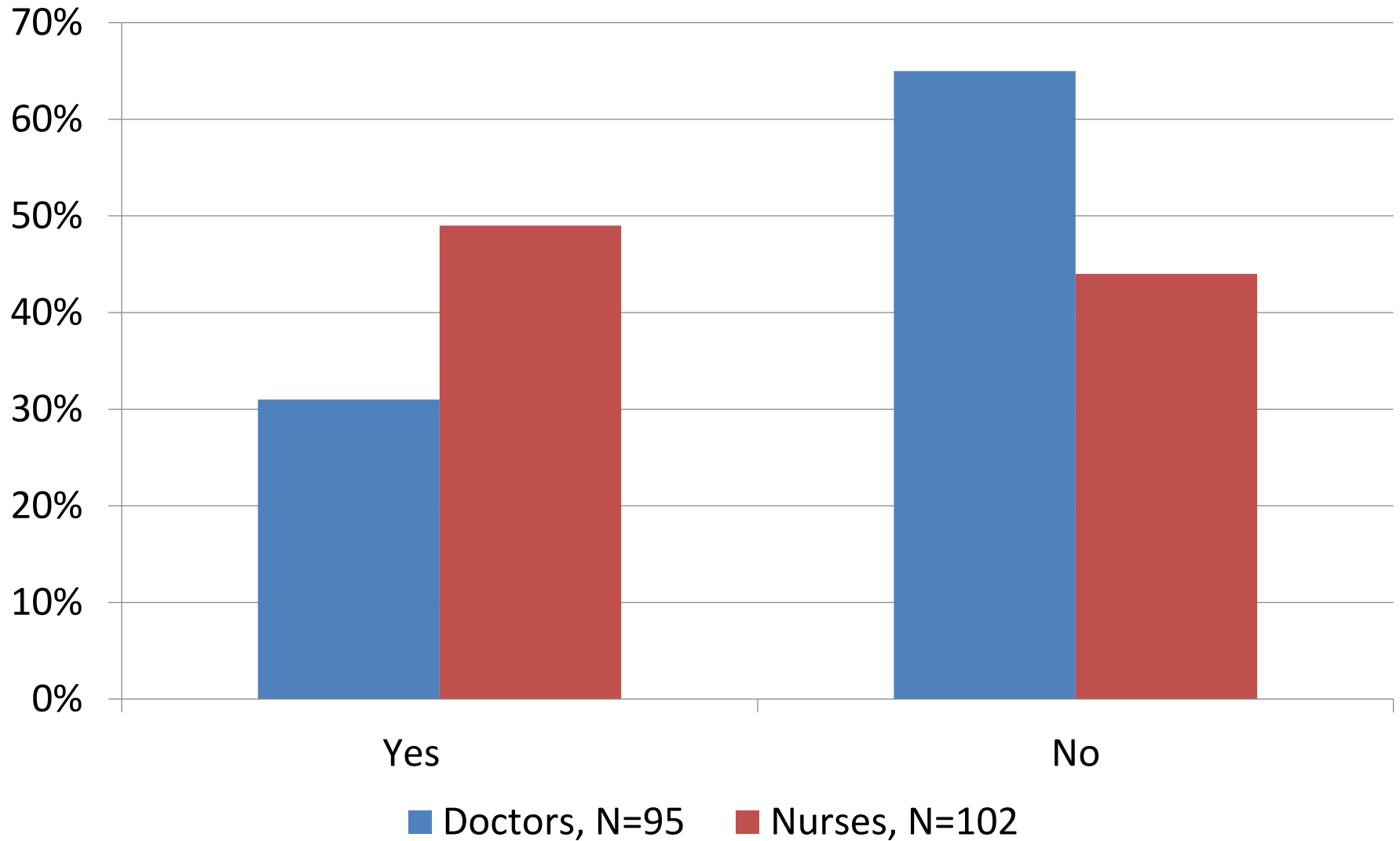
# RESULTS

## What pain assessment scales do you know?



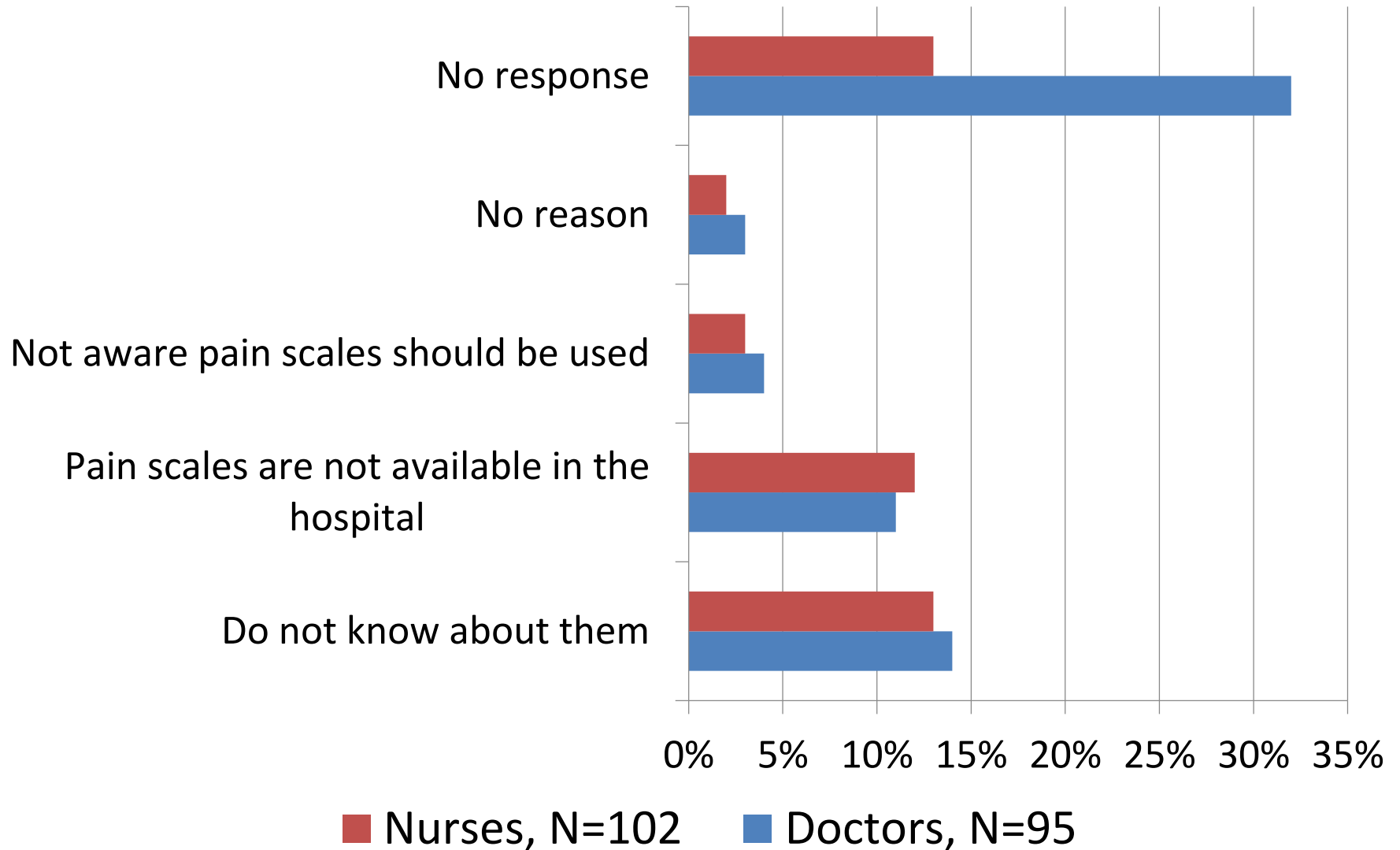
# RESULTS

## Have you ever used a rating scale in the assessment of pain in children?



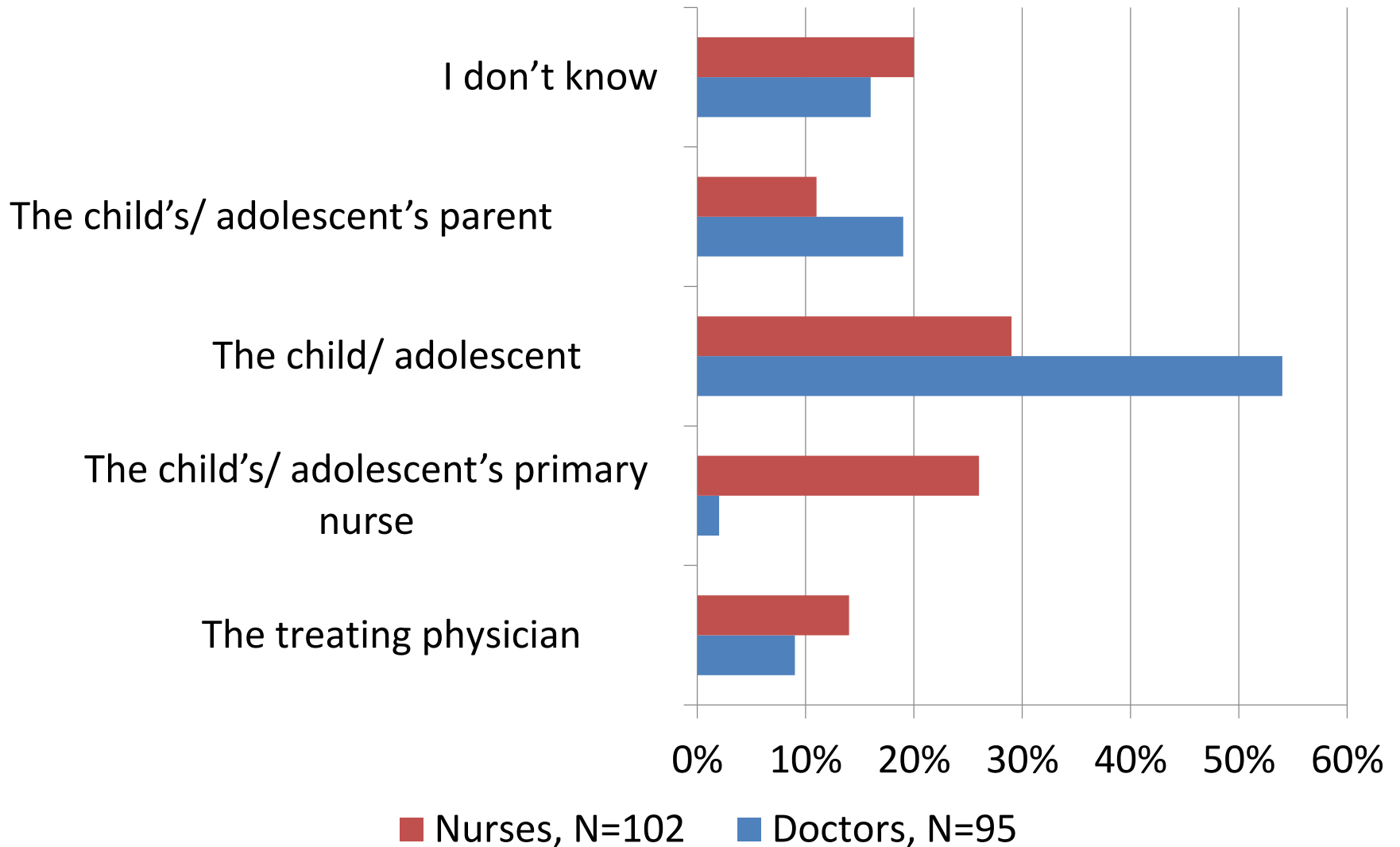
# RESULTS

## Reasons for not using pain rating scales



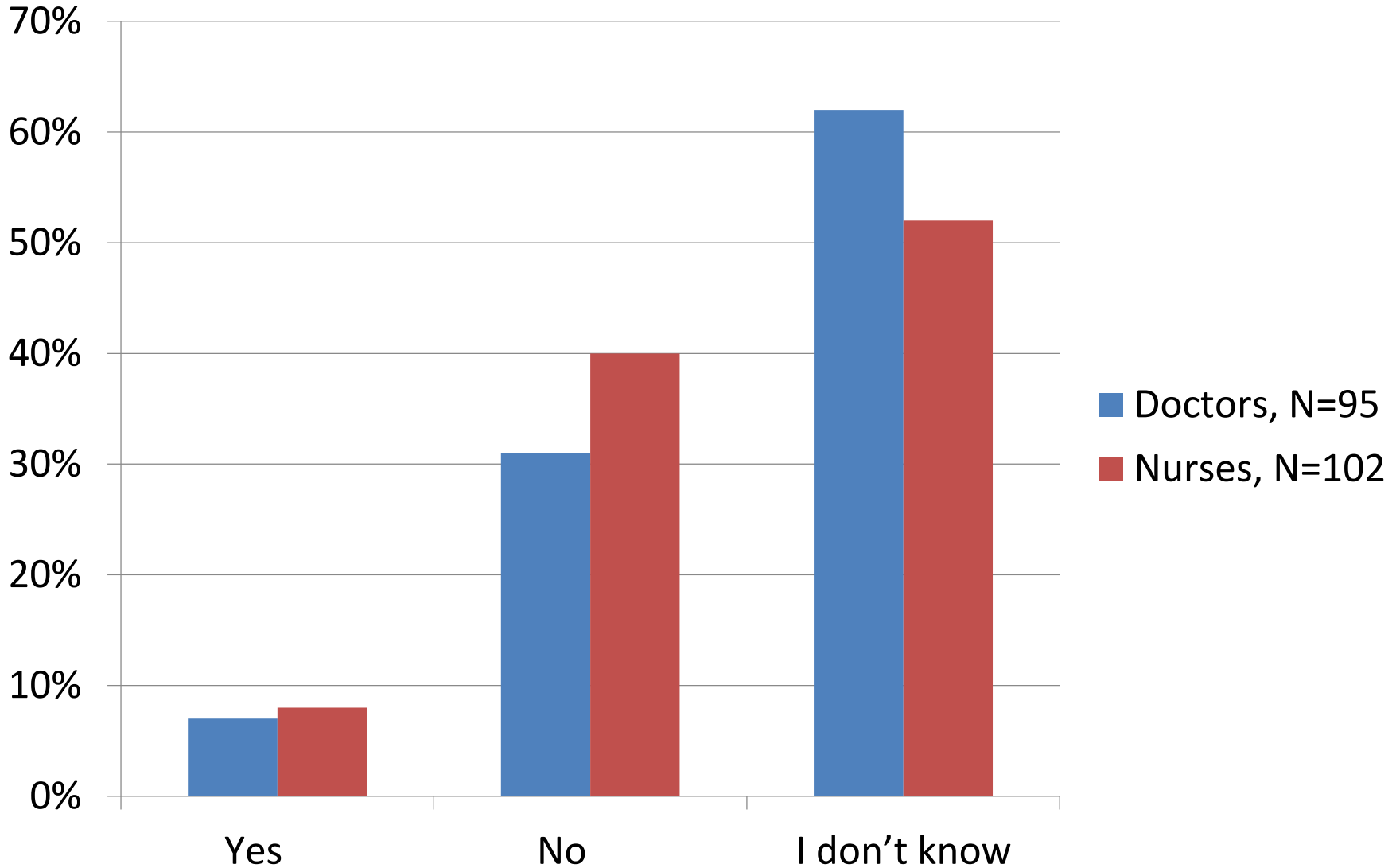
# RESULTS

The most accurate judge of the intensity of the child's/ adolescent's pain is:



# RESULTS

## Is there a recommended pain assessment scale for use in the hospital?



# DISCUSSION

- Poor knowledge of assessment of pain among the healthcare workers studied, has been reported, especially in resource limited countries
- Pre-service and in-service training programmes, Continuing medical education become important to equip staff to assess pain and provide high-quality first-line control of pain for children

# CONCLUSION

- There are gaps in the knowledge of healthcare providers concerning assessment of pain in children

# RECOMMENDATIONS

- Capacity building interventions are required to enable application of standard practice and optimal pain relief in children
- Scale up of the Pain Free Hospital Initiative in Nigeria
- Advocacy for inclusion into curricula of health institutions



**THANK YOU**