



Letter to the Editor

Perception and knowledge of nursing professionals on screening of congenital heart disease in newborns

H. S. Rajani¹

¹Department of Pediatrics, Jagadguru Sri Shivarathreeshwara (JSS) Medical College, JSS Academy of Higher Education And Research, Mysuru, Karnataka, India.

***Corresponding author:**

H. S. Rajani,
Department of
Pediatrics, Jagadguru Sri
Shivarathreeshwara (JSS)
Medical College, JSS Academy
Of Higher Education And
Research, Mysuru, Karnataka,
India.

drrajanihs@gmail.com

Received: 01 November 2024
Accepted: 01 January 2025
Epub Ahead of Print: 15 February 2025
Published:

DOI
[10.25259/KPJ_47_2024](https://doi.org/10.25259/KPJ_47_2024)

Quick Response Code:



Dear Editor,

Pulse oximetry (PO) combined with clinical examination is a cost-effective and sensitive screening tool for congenital heart diseases (CHDs) in the newborn period. CHD screening with PO, along with clinical examination, is not universally implemented in India. There are few studies on the role of combined screening of CHD in term newborns, but there are no studies on the perceptions of nursing professionals of the same. For developing a national recommendation on screening and implementation by integration into the mainstream, the perception and knowledge of nursing professionals about the basics of screening and its limitations is important as they are responsible for performing, interpreting, and documenting screening as well as educating and counselling parents to ensure follow-up.^[1-3] This study was done with the objective of assessing the knowledge and perception of nursing professionals on CHD screening of term newborns.

A total of 1009 term newborns underwent combined screening for CHD in a tertiary care hospital. To assess the knowledge and perception of nurses on CHD screening, a survey was done by the investigator administered a questionnaire to nurses working in the paediatric ward, post-natal ward and neonatal intensive care unit (NICU). Informed consent was obtained from parents before initial screening. The Institutional Ethical Committee approval was taken for the study.

Forty-four nurses working in the paediatric ward, post-natal ward, paediatric intensive care unit and NICU participated in the study. About 93.2% felt that it was easy to convince parents of PO screening. About 95.4% knew that PO screening could not detect all forms of CHD, 88.6% knew optimal timing, 97.7% knew about the correct sites for screening, 100% of them knew about factors that affect pulse ox reading, and 95.4% were aware of interpretation of pulse ox readings to consider as screen positive and report. About 100% of them agreed that combined screening with clinical examination and PO is the best screening method for CHD, and PO screening is worth doing, cost-effective, non-invasive and easy.

Ethical approval: The research/study approved by Institutional ethical committee ref no JSS/MC/IEC/21/5047/2015-16 dated 9th November 2015.

Declaration of patient consent: The authors certify that they have obtained all appropriate parents consent to screen the newborns.

Financial support and sponsorship: Nil.

Conflicts of interest: There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation: The author confirms that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

©2025 Published by Scientific Scholar on behalf of Karnataka Paediatric Journal

REFERENCES

1. Hom LA, Martin GR. Newborn critical congenital heart disease screening using pulse oximetry: Nursing aspects. *Am J Perinatol* 2016;33:1072-5.
2. Farner R, Livingston J, Rubio SA, Gutierrez MV, Gong A, Texas Pulse Oximetry Project Team. The nurse champion model for advancing newborn screening of critical congenital heart disease. *J Obstet Gynecol Neonatal Nurs* 2014;43:497-506.
3. Ryan DJ, Mikula EB, Germana S, Silva SG, Derouin A. Screening for critical congenital heart disease in newborns using pulse oximetry: Evaluation of nurses' knowledge and adherence. *Adv Neonatal Care* 2014;14:119-28.

How to cite this article: Rajani HS. Perception and knowledge of nursing professionals on screening of congenital heart disease in newborns. *Karnataka Paediatr J*. doi: 10.25259/KPJ_47_2024