The Perception of Pediatric Renal Nurses’ Regarding the Barriers to the Creation of Arteriovenous Fistula in Children on Hemodialysis in Abu Dhabi

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Introduction
The Problem

- AVF was never used in pediatric patients on HD in the only pediatric dialysis center available in the city
- CVCs are the only permanent dialysis access for pediatrics
- It is essential to acknowledge the short life of CVCs in chronic pediatric HD patients
- Each access has its own length of patency
- Each patient has a limited number of sites for AVF construction
Guidelines

Permanent access in the form of a fistula or graft is the preferred form of vascular access for most pediatric patients on maintenance HD therapy (KDOQI, 2006).

A fistula should be considered in children on long-term dialysis; psychological preparation is necessary before fistula creation (British Association For Pediatric Nephrology, 2008)
Purpose and Objectives

The **purpose** of this study was to explore barriers as perceived by renal pediatric nurses regarding the creation of AVF for pediatric HD patients in Abu Dhabi.

The specific **objectives** were to:

- Assess the knowledge of the pediatric renal nurses in regards to HD vascular access for pediatric patients in Abu Dhabi.
- Suggest an evidence based service development plan to implement the use of AVF for the long term HD pediatric patients in Abu Dhabi.
This Study

- This study is the first study in Abu Dhabi
- A qualitative search design utilizing semi-structured interviews
- A purposive sample of five experienced pediatric renal nurses
- Voluntarily participated
- Face-face interview
- Open-ended questions
From the Literature

• The historical background of AVF in pediatric population
• AVF is the most preferred and the vascular access of choice for pediatric patients on HD modality
• Advantages of AVF compared to CVC
• The recommendation of the international pediatric vascular guidelines
• The barriers of AVF creation in pediatric HD population.
From the Literature

The **barriers** could be related to:

- Patient’s characteristics
- Surgical expertise
- Health care providers’ preferences
- Patients and families’ preferences
- Short waiting time of kidney transplantation
The Questions Asked Were:

1. Would you please share your experience in working with pediatric HD vascular access?

2. What is your understanding of the recommended vascular access for children as per the international guidelines?

3. What are your views about challenges or barriers of creating AVF in children?

4. Would you please share your opinion of how we could implement AVF program for the HD pediatric patients in the unit?
Interesting Features of the Data.

I haven't heard the fistula, fistula being used in pediatrics! I didn't even know that it can be used in pediatrics. Just think of a child, the child who is already sick, and then you put two needles, not only one needle, they need two. For sure they will feel pain.

In my opinion, better not to have AVF, I will know what to do. Another participant stated, “I am happy to keep them with a central venous line, I can manage that, it is manageable.”

If AVF is the recommended vascular access internationally for pediatric, our organization will try it best to provide our patients with the best possible care, and they can do it.

Recruiting a specialized pediatric vascular surgeon is essential. We don't have any of these resources.
Themes

Three themes were emerged through thematic analysis (Burns & Clarke, 2006).

The three themes were:

1. Pediatric renal nurses’ knowledge on pediatric hemodialysis vascular access based on experience.
2. Pediatric renal nurses’ perceived challenges in pediatric AVF creation and usage.
3. The need for awareness and education on AVF for pediatric renal nurses.
The Barriers as Perceived by the Nurses

- Lack of awareness of the international pediatric vascular guidelines and best practice.
- Pain that may be associated with frequent needling.
- The physical appearance of AVF and body image.
- Unavailability of the pediatric vascular surgeon.
- Parents and/or the family resistance.
Recommendations

• Avoid/ minimize the prolonged use of CVCs
• Decrease morbidity in this unique patient population

Stress on following:
• Clinical vascular guidelines
• Refer candidates for AVF creation
• “Pediatric Fistula First initiative” plan.
Pediatric Access Algorithm

Figure 3. Pediatric Pre-Dialysis Referral Pathway.
Education is the Key

• To change this concept among the nurses they must accept having children with AVF

• Requires a significant shift in knowledge, understanding and attitude

• Education and raising awareness should not be limited for pediatric renal nurses only
Education is the Key

Patient/ family education classified to target two groups:

- The dialysis group
- Pre dialysis group
Conclusion

• The “Pediatric Fistula First Initiative” in Abu Dhabi is possible with the collaborative from all the stakeholders, MDT team and patients

• Educational campaign directed toward patients, primary care physicians, vascular surgeons and nurses are necessary to align interests and modify behaviors
References