

Vascular access and infusional therapy team: satisfaction of the health team in a pediatric hospital

ABSTRACT | Objectives: To know the satisfaction and quality of service on the vascular access and infusional therapy team (TAVTI) and to identify the importance of TAVTI for the health team. Method: This is an exploratory, descriptive field research, with a quantitative and qualitative approach. We apply forms to 149 professionals. Results: Of the participants, 46.97% (n: 70) reported total satisfaction with TAVTI; the minority 0.67% (n: 1) shows total dissatisfaction; the majority considered the service very important 71.14% (n: 106) and excellent performance for 44.96% (n: 67). Only 1.34% (2) of the professionals considered the quality of work to be regular. Of the participants, 126 declared: humanized service; safe for the patient; needs qualification and training; safe material; Full time. Conclusion: The performance of TAVTI proves to be effective. The satisfaction of the health team and the importance in pediatrics were found due to the preservation of venous access and the desire of professionals to maintain TAVTI full time. In view of the percentage of quality considered, excellent and great.

Keywords: Vascular Access Devices; Health Personnel; Patient Satisfaction; Pediatrics; Quality Management.

RESUMEN | Objetivos: Conocer la satisfacción y calidad del servicio del equipo de acceso vascular y terapia infusional (TAVTI) e identificar la importancia de TAVTI para el equipo de salud. Método: Se trata de una investigación de campo exploratoria, descriptiva, con enfoque cuantitativo y cualitativo. Aplicamos formularios a 149 profesionales. Resultados: De los participantes, el 46,97% (n: 70) reportaron satisfacción total con TAVTI; la minoría 0,67% (n: 1) muestra total insatisfacción; la mayoría consideró el servicio muy importante 71,14% (n: 106) y excelente desempeño para el 44,96% (n: 67). Solo el 1,34% (2) de los profesionales consideró regular la calidad del trabajo. De los participantes, 126 declararon: servicio humanizado; seguro para el paciente; necesita cualificación y formación; material seguro; período integral. Conclusión: La actuación de TAVTI demuestra ser eficaz. La satisfacción del equipo de salud y la importancia en pediatría se encontraron debido a la preservación del acceso venoso y el deseo de los profesionales de mantener TAVTI a tiempo completo. En vista del porcentaje de calidad considerado, excelente y óptimo.

Palabras claves: Dispositivos de Acceso Vascular; Personal de Salud; Satisfacción del Paciente; Pediatría; Gestión de la Calidad.

RESUMO | Objetivos: Conhecer a satisfação e qualidade do serviço sobre time de acesso vascular e terapia infusional (TAVTI) e identificar a importância do TAVTI para a equipe de saúde. Método: Trata-se de uma pesquisa de campo exploratória, descritiva, com abordagem quantitativa e qualitativa. Aplicamos formulários para 149 profissionais. Resultados: Dos participantes, 46,97%(n:70) refere total satisfação frente ao TAVTI; a minoria 0,67%(n:1) demonstra insatisfação total; a maioria considera o serviço muito importante 71,14%(n:106) e excelente atuação para 44,96%(n:67). Apenas 1,34%(2) dos profissionais considerou a qualidade do trabalho regular. Dos participantes, 126 declararam: serviço humanizado; seguro para o paciente; necessita de capacitação e treinamento; material seguro; período integral. Conclusão: A atuação do TAVTI demonstra ser efetiva. Constatou-se a satisfação da equipe de saúde e a importância na pediatria devido à preservação do acesso venoso e o desejo dos profissionais em manter o TAVTI período integral. Frente ao percentual de qualidade considerado, excelente e ótimo.

Palavras-chaves: Dispositivos de Acesso Vascular; Pessoal de Saúde; Satisfação do Paciente; Pediatria; Gestão da Qualidade.

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INTRODUCTION

Venipuncture is characterized by the placement of a device inside the venous vessel, which may or may not be attached to the skin. This procedure requires periodic care and control during hospitalization.⁽¹⁾ The observation of the puncture is extremely important, because if the insertion site shows signs and symptoms of complications, the therapy must be suspended, even if the catheter is installed for less than 24 hours.

The peripheral veins gradually become damaged by infusions of antibiotics, with high osmolarity, parenteral nutrition and chemotherapeutic agents. In addition, pediatric patients often report that venipuncture and the use of catheters are some of the most traumatic facts of their hospitalization. A child with difficult venous access can undergo 12 to 20 attempts to insert the catheter in 4 weeks of hospitalization.⁽²⁾ The recommended maximum limit is up to three puncture attempts.⁽²⁾

Concomitant to the technological advancement of intravenous therapy, nurses must show their technical and scientific competence for the development of the practice of peripheral vein puncture and medication administration, considering that it is the responsibility of nursing to decide on the choice of locations, types of devices, gauges, installation documentation, dressing maintenance and prevention of complications.⁽³⁾

Intravenous therapy is one of the procedures that requires innovations in the nurse's practice, supported by scientific analysis that contributes to improving care results. In addition, it is the nurse's responsibility to establish peripheral venous access, including the peripherally inserted central catheter (PICC), according to COREN-SP CAT Opinion No. 020/2010⁽⁴⁾ and, support in scientific evidence to ensure the safety of the patient and professionals and be carried out through the effective elaboration of the

Nursing Care Systematization, provided for in COFEN Resolution 358/09.⁽⁵⁾

TAVTI was created from the Infusion Nurses Society's Practical Guidelines for Intravenous Therapy⁽⁶⁾, proposed to the Nursing Directorate of the studied institution, in which TAVTI is made up of nurses, doctors, pharmacists, technicians and nursing assistants. Training with specialized professionals has been a recommended strategy to provide care to children who need vascular access. Performs its activity exclusively for insertion, maintenance, removal of the Peripherally Inserted Central Catheter (PICC), difficult peripheral venous access, resolves and discusses the complications related to infusional therapy, in addition to carrying out consultancy and permanent education.^(7,8)

In summary, TAVTI works together to review, analyze, implement, educate and sustain best practices, emphasizing patient safety in addition to controlling costs by reducing waste.⁽⁸⁾

TAVTI is structured to meet the needs of patients with efficiency and high quality. Safe infusion therapy provides positive results for the patient, including prevention of complications and patient and healthcare professional satisfaction, when attention is given to four main areas: appropriate patient selection, effective patient education, meticulous patient care and comprehensive assessment and monitoring, and interprofessional communication and collaboration.⁽⁹⁾

In addition, we highlight the importance of the existence of an institutional protocol related to the Vascular Access and Infusion Therapy Team (TAVTI), reinforcing the care to be provided in order to guarantee safe nursing care, without risk or damage to pediatric patients caused by negligence, malpractice or imprudence, according to Art. 12 of the Nursing Professionals Code of Ethics.⁽¹⁰⁾

Therefore, the TAVTI nurse is a reference to evaluate the intravascular devices regularly, including the need to install and maintain the most appropriate devi-

ce for infusional therapy according to the child's needs, ensuring a safe and quality care hospitalization.^(6,11)

When talking about quality, it is common to relate society to our individual expectations, which are also influenced by the expectations of quality in society as a whole; then, when talking about quality, it is said of a product or service and if it met our expectations or not, or even if it exceeded them.⁽¹²⁾

Health quality is a responsibility of professionals and an expectation of patients.⁽¹³⁾ In relation to satisfaction, it can enable nurses to implement changes in practice and contribute to management with proposals for improvements in the quality of health care.⁽¹⁴⁾ In other words, their satisfaction through the quality of the service provided to them, from a multidisciplinary team with technological conditions to guarantee good assistance and an administrator who satisfies their needs in a safe and profitable manner.⁽¹⁵⁾

It is imperative to recognize intravenous therapy (IVT) as a broad and complex process in multidisciplinary work with institutional vision and support and in establishing the critical points of this process. However, subject to monitoring and in line with new trends in good practices in intravenous therapy, focusing on the quality of nursing care.

After three months of implementation, we propose to know the satisfaction of technicians, nursing assistants, nurses and doctors about TAVTI, as well as to identify the importance of this service for nursing care, since innovations are part of the daily care of children.

In view of the above, the present study has the purpose of allowing the design of measures that seek to improve nursing care in order to verify whether there is a need for adaptations or changes in this service. We sought to answer the following question: What is the satisfaction of technicians, nursing assistants, nurses and doctors about TAVTI and the quality and importance of this service in

the children's hospital? Its objectives are to know the satisfaction and quality of the service about the Vascular Access and Infusional Therapy Team and to identify its importance for the health team.

METHOD

This is an exploratory, descriptive field research, with a quantitative, qualitative and transversal approach, carried out in a children's hospital located in the city of São Paulo. The survey included 149 professionals who provide direct assistance to patients. As an eligibility criterion, we used an intentional non-probabilistic sample composed of individuals who agreed to participate freely in the study.

We applied the form characterizing the participants and, using the Likert scale (16), to identify the degree of satisfaction, quality of service and categorizing the content through Bardin's analysis (17), along with the signing of the informed consent form, between June and July 2020, respecting the ethical aspects of research with human beings (18,19), after a favorable opinion from the Brasil platform, under nº 4.098.120 and authorization from the Nursing Board of the pediatric hospital. As for the inclusion criteria, accept to participate in the research, act in the provision of direct care to pediatric patients and; exclusion criteria: refusing to participate in the research; not providing direct care to the patient; do not sign the consent form. Health professionals who provided indirect care to the child were excluded.

In view of the current scenario that we experience in health services with the pandemic, there was a reduction in the number of professionals in the period of data collection, a fact that consists of the limitation of the study.

RESULTS

We started to present the quantitative results of the variables of interest, which allows the characterization of the sample.

149 health professionals accepted to participate. Of these, 87,91% (n:131) were female and 11,40% (n:17) male. Only 0,67% (n:1) did not report.

As for the health team, 20,80% (n:31) of the medical category, 34,22% (n:51) nursing assistants, 20,13% (n:30) nursing technicians and, 24,83% (n:37) nurses. Regarding the age group, 6,04% (n:9) was between 20 and 30 years old and 38,92% (n:58) was between 51 and 60 years old.

They have been trained for 10 years, 12,75% (n:19) professionals and 75,16% (n:112) are between 21 and 30 years of

training. Only 8,05% (n: 12) have been working in pediatrics for more than 40 years, most of them being an experienced team. They did not report 2,68% (n:04) of their time in the area.

In this stage, we present results of descriptive statistics of the variables of interest, which makes it possible to know satisfaction, the importance of TAVTI for the health team and the quality of the service.

We can see in the table above that 46,97% (n:70) of the health team reported total satisfaction with TAVTI. 39,59% (n:59) are satisfied and 10,73% (n:16)

Table 1. Distribution according to satisfaction, importance, quality of TAVTI with the health team. São Paulo, SP, Brazil, 2020

Satisfação do TAVTI	n	%
Totalmente satisfeito	70	46,97
Satisfeito	59	39,59
Parcialmente satisfeito	16	10,73
Nem satisfeito e nem insatisfeito	4	2,68
Parcialmente insatisfeito	1	0,67
Insatisfeito	2	1,34
Totalmente insatisfeito	1	0,67
Total	149	100
Importância do TAVTI	n	%
Muito importante	106	71,14
Importante	40	26,84
Bom	3	2,01
Razoavelmente importante	0	0
Moderadamente importante	0	0
É pouco importante	0	0
Não é importante	0	0
Total	149	100
Qualidade do TAVTI	n	%
Excelente	67	44,96
Ótimo	52	34,89
Bom	28	18,79
Indiferente	0	0
Regular	2	1,34
Ruim	0	0
Muito ruim	0	0
Total	149	100

were partially satisfied. It is considered neither satisfied nor dissatisfied, only 2,68% (n:4) professionals. The minority shows partial and total dissatisfaction 0,67% (n:1), respectively.

The vast majority of members of the health team refer to TAVTI as very important 71,14% (n:106) and important 26,84% (n:40) for the service. Only 2,10% (n:3) considered the work good.

The TAVTI service stands out for its excellence for 44,96% (n:67) of the professionals, excellent 34,89% (n:52) and good 18,79% (n:28). Develops regular work for 1,34% (n:02).

The qualitative categorization expresses the opinion of the participants regarding the performance of TAVTI. We exemplify below the five thematic areas identified from the discursive fragment:

We exemplify below the five thematic areas identified from the discursive fragment:

The health team expresses the importance of the performance of TAVTI in Full time, 69,04% (n:87):

- "[...] full time together with nursing."
- "Maintaining a 12-hour night shift, because sometimes we have difficult access at night, that is, at dawn [...]"
- "The team needs to work on weekends and holidays."

- "Permanence of this team, long term."
- "[...] I would like it to work 24 hours."
- "[...] increase the group so as not to overburden. Full monitoring at night. "

The participants pointed out that it is a humanized Service, 26,19% (n:33):

- "[...] continue with all the affection you appreciate when attending to the patient."
- "TAVTI generates less suffering [...]"
- "[...] the team helps each case, taking the best course of action, generating less suffering for the treatment."
- "The team is a success and they work with love."
- "[...] essential for the child and of great help to the medical service."

Regarding patient safety, 24,60% (n:31):

- "[...] identification of possible adverse events caused by the drug infusion process."
- "[...] training of the entire team for a clinical and efficient look at preventing adverse events."

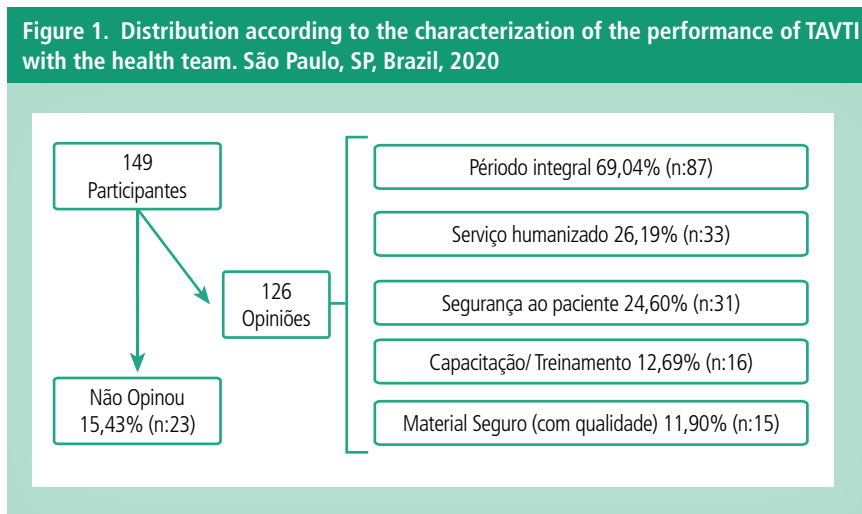
- "[...] contributes a lot to improve our assistance, the team presents a quick response when triggered, which improves the speed and effectiveness of the service."
- "[...] excellent work that helps a lot in the treatment and improves clients."
- "Quality"
- "[...] greatly reduced cases of phlebitis."
- "The biggest and best initiative in favor of child care."
- "[...] TAVTI aims at patient quality and safety."

Study participants also referred to Qualification/Training, 12,69% (n:16):

- "[...] periodic training to maintain venous access."
- "[...] I would like the team to carry out training for the nursing team at night [...]"
- "Improvement and monitoring of the team in loco [...]"
- "[...] training to implement care."
- "[...] training in relation to maintaining and securing access."

Finally, the need to use Safe Material, 11,90% (n:15):

- "[...] improve the quality of puncture materials [...]"
- "[...] acquisition of safer, better quality materials."
- "The material is of very poor quality."
- "The covers don't stick."
- "[...] we need to cover it with Micropore [...]"
- "That the fixing material is of better quality."
- "[...] the need to change the material."
- "[...] avoid wasting material."
- "They really are excellent, even though they manage without cutting-edge equipment [...]"



DISCUSSION

The implementation of TAVIT contributes to the quality of assistance through the implementation of best practices with the establishment of protocols, monitoring strategic indicators and working with other teams to optimize processes and reduce complications. Thus, protocols, guidelines and care packages (bundles) are strategies to promote patient quality and safety.⁽⁷⁾

In this scenario, safety refers to quality and requires professional competence to be able to impact the quality of care and allow the professional to give a broad meaning to care, in the perspective of compassion, dignity and respect for the patient, aspects that can be improved by analyzing the experiences and understanding the satisfaction of children and family members.⁽²⁰⁾

The health services that work with TAVIT present positive results in the quality indicators of the provision of nursing care, with a reduction in the rates of phlebitis and catheter-related infection, as well as in the number of venous punctures, leading to the earlier insertion of the PICC and greater satisfaction of the patient and the care team.^(21,22,23) Mullan 2001, considers quality care to be genuine care, with love involving concern for the patient's needs.⁽²⁴⁾

Given this context, it is important to state that the quality of care and patient safety go together. Thus, according to the Institute of Medicine (IOM), patient safety is one of the areas for the quality of care, that is, ensuring patient safety is one of the ways to ensure the quality of care.⁽²⁵⁾ Patient safety culminates in concerns about the quality of patient care. Care cannot be considered of high quality unless it is safe.⁽²⁶⁾

The quality of care and patient safety are therefore related to the Pan American Health Organization (PAHO), the principles related to quality in nursing care are the starting point for the introduction of care improvement programs. to the pa-

tient, as well as contribute to the reduction of risk during care.⁽²⁵⁾



Regarding the quality of the materials available for care, it is essential to select a sterile and transparent film, as this allows frequent viewing of the insertion site of the Peripheral Venous Catheter (PVC), for the early identification of clinical manifestations of a possible complication.



The Ministry of Health considers that the various ways of building knowledge, skills and practices, the educational actions themselves, must be understood beyond the classic sense of acquiring specific and professional knowledge, in order to modify reality, build and create new ways of managing work processes.⁽²⁷⁾

In view of the results obtained, continuing education in nursing is essential, as the performance of a trained and knowledgeable team is essential to carry out their duties. For this, it is necessary to prepare a training plan and, therefore, to expand the individual and professional competence of those involved.⁽²⁸⁾

Regarding the quality of the materials available for care, it is essential to select a sterile and transparent film, as this allows frequent viewing of the insertion site of the Peripheral Venous Catheter (PVC), for the early identification of clinical manifestations of a possible complication.⁽²⁹⁾ In summary, quality care must be based on scientific evidence, aligned with safety in the use of appropriate materials, in addition to the available technology, such as the ultrasound, as a technological image resource, indicated to assess the diameter of the vein before the insertion of the PICC, contributing to reduce the risk of deep vein thrombosis through the appropriate selection of the catheter caliber compatible with the vein.⁽³⁰⁾

The occurrence of adverse events and technical complaints related to health products suggests the existence of risks that may represent threats to the child's health, in addition to compromising the execution of the procedure by the health team. Situations that may be associated with the low quality of the product; its improper use (procedural errors); factors inherent to the person (in the event of an adverse event); as well as factors of the product itself, many times already indicated in the registration process with the National Health Surveillance Agency (ANVISA).^(31,32)

CONCLUSION

The presence of TAVTI proves to be effective in children with difficult venipuncture. The satisfaction of the health team and the importance for pediatrics

were found due to the preservation of venous access. The training and participation of professionals are the most appropriate ways to achieve patient safety, as the changes transform the human being, whether in

the personal, professional or institutional area. It is worth mentioning the desire of most professionals to maintain TAVTI full time. In view of the percentage of quality considered, excellent and excellent. 🐦

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