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CROSS SECTIONAL STUDY

The Impact of the Process Nurse on Emergency Department Overcrowding and Continuity of Care: A Cross-Sectional Survey at Bari University Hospital

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Findings:

The cross-sectional survey involving 74 healthcare professionals revealed a broadly positive perception of the Process Nurse role, with 83% of participants expressing an overall favorable evaluation. Improved quality of care was acknowledged by 84% of respondents, increased patient satisfaction by 80%, reduced waiting times by 67%, and fewer delays in the care pathway by 58%. Participants also reported improved interprofessional dynamics (70%), whereas only 34% perceived consistent medical support for the role.

ABSTRACT

BACKGROUND: Emergency Department overcrowding compromises care quality, safety, timeliness of treatment, and staff well-being. The Process Nurse has been introduced as an advanced role aimed at optimizing clinical care pathways and improving continuity of care.
OBJECTIVES: The objective was to analyze the perceptions of the multidisciplinary healthcare team regarding the role of the Process Nurse within the ME.CH.A.U. Unit of the Policlinico of Bari, assessing its organizational, clinical, and communicative impact throughout the care process.
METHODS: A descriptive cross-sectional survey was conducted from July to December 2024 involving 74 healthcare professionals. A validated questionnaire, administered both online and in paper format, was used. It consisted of 23 items addressing role understanding, competencies, training, and the perceived effectiveness and efficiency of the Process Nurse.
RESULTS: A total of 83% of participants expressed an overall positive evaluation of the role. Improved quality of care was acknowledged by 84% of respondents, while 80% reported increased patient satisfaction. Additionally, 67% perceived a reduction in waiting times, and 58% noted fewer delays during the care process. Seventy percent reported improved interprofessional dynamics, although only 34% perceived consistent medical support.
CONCLUSIONS: The Process Nurse is perceived by multidisciplinary staff as a strategic figure in managing overcrowding and optimizing care pathways, contributing to enhanced quality, safety, and organizational efficiency. Nonetheless, clearer operational role definition, strengthened interdisciplinary collaboration, and the assurance of consistent medical support remain essential to fully consolidate this professional role.

KEYWORDS: *Emergency Department, Process Nurse, Overcrowding, Evolution and Continuity Of Care*

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STUDIO CROSS-SECTIONAL

Impatto del Process Nurse sul sovraffollamento del Pronto Soccorso e sulla continuità delle cure: studio trasversale presso il Policlinico Universitario di Bari

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Riscontri:

L'indagine trasversale condotta su 74 professionisti sanitari ha evidenziato una percezione ampiamente positiva del ruolo del Process Nurse, con l'83% dei partecipanti che ha espresso una valutazione complessivamente favorevole. L'84% ha riconosciuto un miglioramento della qualità dell'assistenza, l'80% un incremento della soddisfazione dei pazienti, il 67% una riduzione dei tempi di attesa e il 58% una diminuzione dei ritardi nel percorso di cura. È stato inoltre riportato un miglioramento delle dinamiche interprofessionali (70%), mentre solo il 34% ha percepito un supporto medico costante.

ABSTRACT

BACKGROUND: Il sovraffollamento del Pronto Soccorso compromette la qualità dell'assistenza, la sicurezza, la tempestività dei trattamenti e il benessere degli operatori sanitari. Il Process Nurse è stato introdotto come ruolo avanzato con l'obiettivo di ottimizzare i percorsi clinico-assistenziali e migliorare la continuità delle cure.

OBIETTIVI: Analizzare sistematicamente le percezioni del team multidisciplinare riguardo al ruolo del Process Nurse all'interno dell'Unità ME.CH.A.U. del Policlinico di Bari, valutandone l'impatto organizzativo, clinico e comunicativo lungo l'intero percorso assistenziale.

METODI: È stata condotta un'indagine descrittiva trasversale da luglio a dicembre 2024, coinvolgendo 74 professionisti sanitari. È stato utilizzato un questionario validato, somministrato sia in formato online sia cartaceo, composto da 23 item relativi alla comprensione del ruolo, alle competenze, alla formazione e all'efficacia e all'efficienza percepite del Process Nurse.

RISULTATI: L'83% dei partecipanti ha espresso una valutazione complessivamente positiva del ruolo. L'84% ha riconosciuto un miglioramento della qualità dell'assistenza, mentre l'80% ha riferito un aumento della soddisfazione dei pazienti. Inoltre, il 67% ha percepito una riduzione dei tempi di attesa e il 58% una diminuzione dei ritardi lungo il percorso assistenziale. Il 70% ha segnalato un miglioramento delle dinamiche interprofessionali, sebbene solo il 34% abbia percepito un supporto medico costante.

CONCLUSIONI: Il Process Nurse è percepito dal personale multidisciplinare come una figura strategica nella gestione del sovraffollamento e nell'ottimizzazione dei percorsi assistenziali, contribuendo al miglioramento della qualità, della sicurezza e dell'efficienza organizzativa. Rimangono tuttavia essenziali una più chiara definizione operativa del ruolo, il rafforzamento della collaborazione interdisciplinare e la garanzia di un supporto medico costante per consolidare pienamente questa figura professionale.

KEYWORDS: *Pronto Soccorso; Process Nurse; Sovraffollamento; Evoluzione E Continuità Delle Cure.*

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BACKGROUND

In the context of modern healthcare, the Emergency Department (ED) represents a highly complex environment in which timely intervention, organizational efficiency, and quality of care are essential to ensuring patient safety and well-being. In recent years, ED overcrowding has emerged as an issue of growing international concern, with significant consequences for patients, healthcare professionals, and healthcare systems as a whole [1,2]. Evidence from large observational studies suggests that high levels of overcrowding are associated with an increased risk of short-term mortality, highlighting that this phenomenon represents not only an organizational challenge but also a potential threat to patient safety [1,2].

Among the most important manifestations of overcrowding are patient boarding and prolonged stays in the ED, both of which may lead to delays in clinical assessment, treatment initiation, and patient disposition. These challenges have been associated with longer waiting times, an increased risk of clinical complications, and a decline in the perceived quality of care, with significant repercussions for the psychological and physical well-being of healthcare professionals [3,4]. Furthermore, numerous studies have reported an association between overcrowding, adverse events, and incidents of violence against healthcare workers [5].

In this context, time management represents one of the most critical organizational challenges. High levels of crowding can slow patient care pathways, resulting in delays in both diagnostic assessment and treatment initiation. These delays negatively affect patient flow within the ED, perpetuating conditions of congestion and reducing overall operational efficiency. Overcrowding may also adversely affect the triage process, leading to longer waiting times and reduced access to care. Under such circumstances, maintaining adequate standards of privacy during patient interactions and ensuring effective communication between healthcare professionals and patients becomes increasingly difficult [6]. The literature has also shown that overcrowding is associated with a higher number of patients leaving the ED before completing medical evaluation or treatment [4,6,7].

To address these challenges, innovative organizational models and new professional roles have been developed with the aim of improving patient flow management and the efficiency of care pathways. Within this framework, the Process Nurse has emerged as a healthcare professional with specific expertise in patient flow management, coordination of care activities, and the promotion of continuity and safety of care.

Experiences involving the implementation of this role have highlighted its potential contribution to the management of patients awaiting medical assessment, particularly those presenting with minor trauma, low-acuity medical conditions, or rapidly resolvable health problems. Through continuous clinical surveillance, reassessment of patients' conditions, and guidance toward the most appropriate care pathway, the Process Nurse facilitates timely and appropriate care, even during periods of high patient demand [6,8]. In some healthcare settings, this professional has also been involved in the direct management of low-complexity conditions, contributing to the early identification of patients' needs, optimization of available resources, and reduction of waiting times [9,10].

The literature suggests that the introduction of the Process Nurse is associated with improvements in the care experience of both patients and healthcare professionals [7]. Positive effects have also been observed on important organizational indicators, including reductions in ED length of stay and in the number of patients leaving the department before

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completing medical evaluation or treatment [8]. By adopting a streaming approach, the Process Nurse moves beyond the traditional triage model based solely on patient prioritization, promoting individualized care pathways tailored to each patient's clinical, social, and psychological characteristics [11].

The potential benefits of introducing professionals dedicated to coordinating patient care pathways are also supported by international experiences. In particular, the Australian Nurse Navigator model has demonstrated promising results in terms of care coordination, optimization of patient flow, and improvement of the patient experience [12-14].

Although the available literature has reported promising effects of the Process Nurse on organizational and clinical outcomes, the successful implementation of this role also depends on how it is perceived by the healthcare professionals who work alongside it on a daily basis. Nurses' perceptions provide valuable information regarding the feasibility, acceptability, and perceived impact of the Process Nurse on patient flow, communication, workload, and quality of care. Exploring these perceptions is an essential step in understanding whether this organizational model is considered useful, sustainable, and applicable in routine clinical practice, particularly within healthcare systems where the role has not yet been widely implemented. Despite the growing interest in these organizational models and the encouraging findings reported in literature, the available evidence remains limited and heterogeneous. Furthermore, most existing studies have focused on objective organizational outcomes or on local implementation experiences, whereas little is known about nurses' perceptions of the Process Nurse role and its perceived impact on clinical practice. As a result, further research is needed to explore healthcare professionals' perceptions of this organizational model within the Italian healthcare system.

In light of these considerations, the present study aims to evaluate the perceived impact of introducing the Process Nurse in the Emergency Department of the University Hospital of Bari by examining selected organizational performance indicators, including waiting times, Emergency Department length of stay, and the rate of patients leaving before completion of medical evaluation or treatment.

OBJECTIVE

This study aims to conduct a comprehensive analysis of the perceptions and feedback of the multidisciplinary healthcare team regarding the role of the Process Nurse within the ME. CH.A.U. Operating Unit of the Policlinico of Bari. The investigation seeks to demonstrate the significant impact of the Process Nurse on departmental operations, highlighting its effectiveness and efficiency, and ultimately contributing to the improvement of patient care and outcomes.

MATERIALS AND METHODS

A descriptive cross-sectional survey was conducted at the ME.CH.A.U. Unit of Bari University Hospital between July 18, 2024, and December 10, 2024. The study employed an observational design, and all analyses were purely descriptive, aimed at supporting conclusions regarding healthcare professionals' perceptions rather than objectively measured outcomes.

The study involved a sample of 74 healthcare professionals. The study population consisted of key healthcare personnel working within the Emergency Department of Bari University Hospital, specifically

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nursing staff, physicians, and healthcare assistants (OSS). All healthcare professionals employed at the ME.CH.A.U. Unit during the study period were considered eligible for participation. Participants were recruited through consecutive sampling and approached during their work shifts. Of the 105 eligible professionals invited to participate, 74 completed the survey, resulting in a response rate of 70,5%.

Inclusion criteria were: active employment within the unit during the study period and belonging to any professional category (nursing staff, physicians, or healthcare assistants). No additional exclusion criteria were applied other than not being employed within the Unit during the study period.

The study was conducted in accordance with applicable ethical and legal regulations, including the General Data Protection Regulation (GDPR; EU Regulation 2016/679) and Italian data protection legislation (Legislative Decree No. 196/2003 and subsequent amendments). Authorization to conduct the study was obtained from the Director of the ME.CH.A.U. Unit at Bari University Hospital. Given the observational nature of the study, which was based on an anonymous questionnaire administered exclusively to healthcare professionals and did not involve patients or the collection of clinical or personally identifiable data, formal review by an ethics committee was not required under the applicable Italian regulations.

Participation was entirely voluntary. Prior to completing the questionnaire, all participants received information regarding the study objectives, data management procedures, anonymity, and confidentiality. Completion and submission of the questionnaire were considered to constitute informed consent to participate. Furthermore, participant anonymity was ensured by not collecting any personally identifiable information (e.g., name, surname, employee identification number, or contact details). Questionnaires were completed anonymously, and results were analyzed and reported only in aggregate form, preventing the identification of individual participants.

The questionnaire (figures 1,2,3,4) was administered both online (22%) and in paper format (78%) to ensure broad and diverse participation. It consisted of a total of 23 items, each addressing key aspects of this specialized nursing role.

The first two questions concerned, respectively, participants' professional role within the ME.CH.A.U. Unit of Bari University Hospital (i.e., nursing staff, physicians, or healthcare assistants) and the duration of their experience within the Unit (less than 1 year, 1–3 years, or more than 3 years). The remaining questions explored the main topics related to the understanding of the process nurse role, the specific competencies required for this position, and the adequacy of training provided for this role. In addition, the questionnaire investigated the impact of this professional figure on the department, with particular emphasis on its effectiveness and efficiency in improving the quality of patient care.

Participants were asked to answer each question as honestly and accurately as possible by selecting the response option that best reflected their opinion regarding the statement presented. Response options were: "disagree," when the participant did not agree with the proposed statement; "uncertain," when the participant was unable to take a definite position or considered the statement ambiguous; and "agree," when the participant endorsed the content of the statement. Responses classified as "uncertain" were treated as a distinct and independent category in all analyses and were not combined with either the "agree" or "disagree" categories.

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Table 1. *The questionnaire*

#	QUESTION	Option 1	Option 2	Option 3
1	What is your professional role?	Nursing Staff	Medical Staff	Healthcare Assistant (HCA)
2	How long have you been working in the Emergency Department?	Less than 1 year	1–3 years	More than 3 years
3	I am concerned that the Process Nurse may not possess the knowledge and competencies required for the role.	Disagree	Unsure	Agree
4	I am not familiar with the role of the Process Nurse in the Emergency Department.	Disagree	Unsure	Agree
5	I am concerned that the Process Nurse may make an incorrect clinical judgment.	Disagree	Unsure	Agree
6	The Process Nurse role has not increased the risk of inappropriate patient treatment.	Disagree	Unsure	Agree
7	The Process Nurse role has contributed to reducing delays in patient care delivery.	Disagree	Unsure	Agree
8	Process Nurses are not adequately prepared for their role.	Disagree	Unsure	Agree
9	The Process Nurse has a positive impact on the quality of patient care.	Disagree	Unsure	Agree
10	The Process Nurse role does not improve patient compliance with care and treatment.	Disagree	Unsure	Agree
11	The Process Nurse adopts an organized and systematic approach to patient care.	Disagree	Unsure	Agree
12	The Process Nurse did not have access to a second medical opinion when required.	Disagree	Unsure	Agree
13	The Process Nurse role has not helped meet patients' needs and expectations.	Disagree	Unsure	Agree
14	The Process Nurse role has contributed to increasing patient satisfaction.	Disagree	Unsure	Agree
15	Process Nurses receive adequate support from physicians in carrying out their role.	Disagree	Unsure	Agree
16	The Process Nurse has not contributed to facilitating holistic patient care.	Disagree	Unsure	Agree
17	The Process Nurse is not able to refer patients directly to Emergency Department specialists.	Disagree	Unsure	Agree
18	The Process Nurse role contributes to improving healthcare services for patients.	Disagree	Unsure	Agree
19	The Process Nurse role has contributed to reducing the number of healthcare professionals with whom patients need to interact during their care pathway.	Disagree	Unsure	Agree
20	The Process Nurse role is essential to the effective functioning of the Emergency Department.	Disagree	Unsure	Agree
21	Overall, the Process Nurse role in the Emergency Department produces favorable outcomes for patient care and service delivery.	Disagree	Unsure	Agree
22	The Process Nurse role has not had a positive impact on interprofessional relationships.	Disagree	Unsure	Agree
23	The Process Nurse role has helped optimize patient flow and reduce waiting times.	Disagree	Unsure	Agree

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Several potential sources of bias were considered during the design and conduct of the study. To minimize selection bias, all healthcare professionals employed within the ME.CH.A.U. Unit during the study period were invited to participate, adopting a census-based approach rather than selecting a predefined sample. Nevertheless, participation was voluntary and therefore selection bias cannot be completely excluded.

Non-response bias was also considered, as not all eligible healthcare professionals completed the questionnaire. Of the 105 eligible professionals invited to participate, 74 completed the survey, yielding a response rate of 70.5%. No information was available regarding non-responders; therefore, potential differences between respondents and non-respondents could not be assessed.

To reduce the risk of social desirability and acquiescence bias, questionnaires were completed anonymously, no personally identifiable information was collected, and participants were informed that responses would be analyzed and reported only in aggregate form.

Because data collection was conducted using both online and paper-based questionnaires, potential mode effects were considered. To ensure consistency across administration formats, the same questionnaire, wording, response options, and instructions were used in both modalities

Data analyses were exclusively descriptive. Results were reported as absolute frequencies (n) and percentages (%). Given the exploratory and descriptive nature of the study, no inferential statistical tests were performed, no confidence intervals were calculated, and no adjustments were made for potential confounding factors. Data were entered and analyzed using Microsoft Excel. No missing responses were identified; therefore, all analyses were conducted on the total number of completed questionnaires (n = 74).

The study adopted a census-based approach by inviting all healthcare professionals employed within the ME.CH.A.U. Unit during the study period to participate. Consequently, the sample size was determined by the available population and the feasibility of the study rather than by a formal sample size calculation.

RESULTS

All eligible healthcare professionals working in the ME.CH.A.U. Unit were invited to participate in the study. Of the 105 eligible professionals, 74 agreed to participate and completed the questionnaire, yielding a response rate of 70,5%. No missing data were identified for any questionnaire item.

The study sample comprised 74 healthcare professionals from the ME.CH.A.U. Unit of the Policlinico of Bari, divided into nursing staff (74%, n=55), healthcare assistants (O.S.S.) (16%, n=12), and medical staff (10%, n=7).

With regard to length of service within the Unit, 82% of participants (n=61) reported more than 3 years of experience, 11% (n=8) reported less than 1 year, and 7% (n=5) reported 1–3 years.

Concerning perceptions of the Process Nurse role, 65% (n=48) expressed no concerns about the nurse's preparation; 20% (n=15) were uncertain and 15% (n=11) disagreed. A clear understanding of the role was reported by 82% (n=61), while 14% (n=10) were uncertain and 4% (n=3) stated they did not know the role.

Eighty percent of the sample (n=59) reported no concerns about the risk of incorrect clinical assessments by the Process Nurse; 17% (n=13) were

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doubtful, and only 3% (n=2) shared this concern. Moreover, 57% (n=42) did not believe that the presence of the Process Nurse increases the risk of inappropriate treatments; 31% (n=23) expressed the opposite view and 12% (n=9) were uncertain.

Fifty-eight percent of participants (n=43) recognized that this professional role was perceived to help reduce delays in care delivery, whereas 24% (n=18) disagreed and 18% (n=13) were uncertain. Sixty-four percent (n=47) rated the overall preparation of nurses in this role as adequate; 27% (n=20) were uncertain, and 9% (n=7) judged it inadequate.

A perceived impact of the Process Nurse on improving quality of care was acknowledged by 84% (n=62); 12% (n=9) were uncertain and 4% (n=3) perceived no improvement. Seventy-eight percent (n=58) reported perceived improved patient compliance, while 12% (n=9) were uncertain and 10% (n=7) observed no benefit.

Seventy-four percent of participants (n=55) evaluated positively the organized and systematic approach adopted by the Process Nurse; 20% (n=15) were uncertain and 6% (n=4) disagreed.

Regarding access to second medical opinions, 43% (n=32) confirmed this possibility, 31% (n=23) were uncertain, and 26% (n=19) denied such an opportunity.

Eighty-three percent (n=61) stated that the Process Nurse effectively addresses patient needs; 12% (n=9) were uncertain, and 5% (n=4) denied a positive impact. Eighty percent (n=59) perceived improved patient satisfaction, compared with 16% (n=12) uncertain and 4% (n=3) reporting no significant change.

With respect to support received from medical staff, only 34% (n=25) considered it consistent, 34% (n=25) were uncertain, and 32% (n=24) did not perceive adequate support.

A contribution of the Process Nurse to holistic care was recognized by 70% (n=52); 16% (n=12) were uncertain and 14% (n=10) disagreed. As for the ability to direct patients to appropriate specialists, 42% (n=31) confirmed this function, 22% (n=16) were uncertain, and 36% (n=26) denied it.

According to 88% of participants (n=65), the Process Nurse was perceived to help improve the care provided by the National Health Service; 9% (n=7) were uncertain and 3% (n=2) disagreed. The possibility of reducing the number of providers with whom the patient interfaces was recognized by only 38% (n=28); 42% (n=31) did not observe this benefit and 20% (n=15) were uncertain.

Seventy-four percent (n=55) considered the Process Nurse role essential for Emergency Department functioning; 20% (n=15) were uncertain and 6% (n=4) disagreed.

Overall appraisal of the role was largely positive: 83% (n=61) expressed a favorable opinion, 16% (n=12) were uncertain, and only 1% (n=1) disagreed. Finally, 70% (n=52) noted perceived improvements in interprofessional dynamics; 23% (n=17) were uncertain and 7% (n=5) expressed a negative view. With respect to reducing waiting times, 67% (n=50) perceived a positive impact, 22% (n=16) were uncertain, and 11% (n=8) disagreed.

DISCUSSION

The findings of this study highlight the perceived positive impact and value of the Process Nurse role within the Emergency Department (ED) of the Policlinico of Bari, as evaluated by a multidisciplinary healthcare team. Overall, participants reported that this professional figure contributes meaningfully to improving organizational efficiency, the quality of care, and the overall patient experience in a context

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characterized by high complexity and chronic overcrowding. [figure 1].

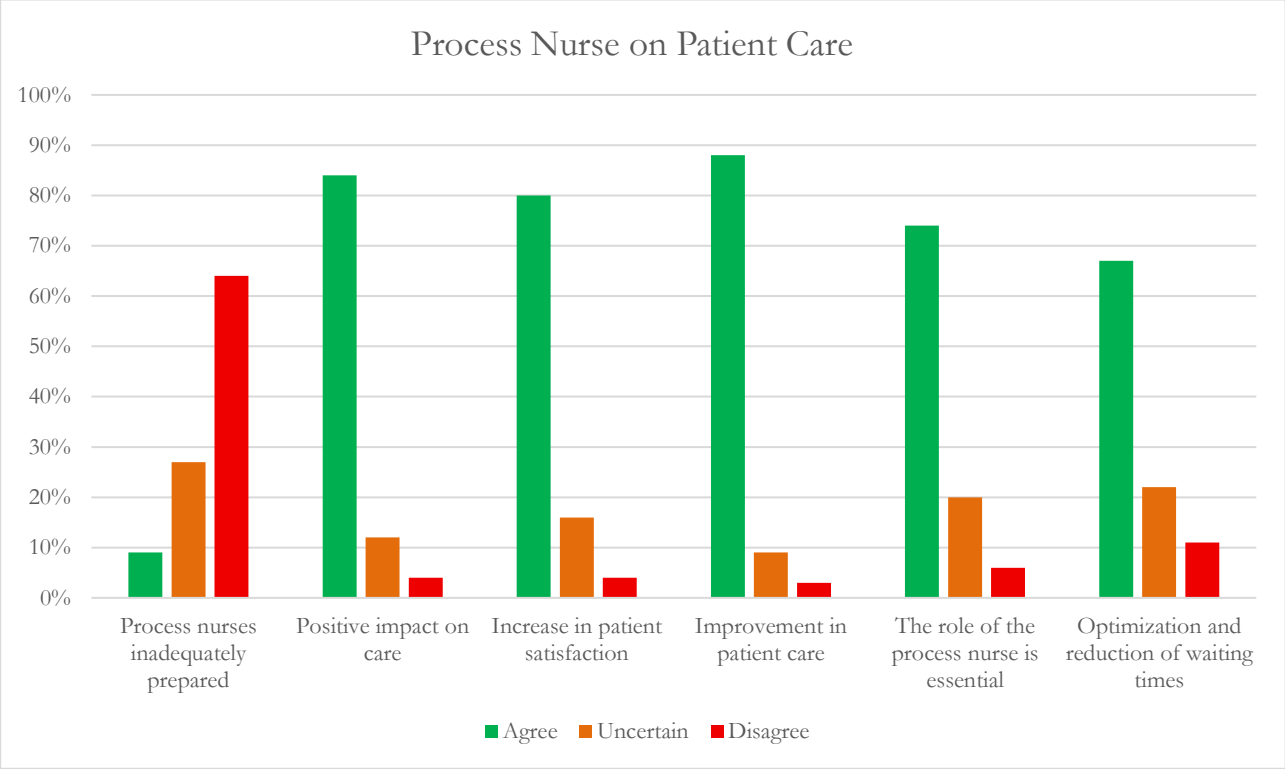

Figure 1. *Process Nurse on Patient Care*

A significant majority of participants (83%) expressed a favorable overall opinion of the Process Nurse, underscoring its perceived essential role in the functional organization of the ED. This perception aligns with the outcomes of international studies such as those conducted in Australia on the Nurse Navigator model which have demonstrated similar benefits in terms of optimizing patient flow, reducing waiting times, and enhancing communication and continuity of care [12,13].

The high level of agreement (84%) regarding the Process Nurse's perceived contribution to improving care quality and the perceived positive influence on patient satisfaction (80%) further reinforce the importance of this professional in fostering a patient-centered and efficient healthcare environment.

The reported perception of adequate training and preparation of Process Nurses (reported by 64% of respondents) indicates growing confidence in the competence of these professionals, although the 27% of participants who were uncertain suggest that further efforts are needed to standardize and communicate the training pathways required for this role. Similarly, the high percentage of professionals (82%) who demonstrated a clear understanding of the Process Nurse's functions reflects effective role integration within the multidisciplinary team. Nevertheless, the finding that only 34% of respondents perceived consistent medical support highlights the persistence of interprofessional communication barriers, which may limit the full expression of the Process Nurse's potential. This observation underlines the need to strengthen collaborative practices and shared decision-making among healthcare professionals, a factor also

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emphasized in prior studies exploring team dynamics in emergency settings [15,16].

The data also suggest that the Process Nurse was perceived to contribute or improve operational performance. More than half of the participants (58%) perceived a reduction in care delivery delays, and 67% reported perceiving a decrease in patient waiting times. These results represent self-reported perceptions rather than objective ED time metrics and should be interpreted accordingly. These perceived results are consistent with evidence from the literature indicating that the implementation of similar roles can streamline care pathways, reduce unnecessary bottlenecks, and enhance patient throughput without compromising safety or quality [6,17,18]. Furthermore, the recognition of the Process Nurse's role in supporting holistic care (70%) and addressing patient needs effectively (83%) demonstrates the value of this position not only as an operational resource but also as a relational and communicative mediator between patients, families, and healthcare teams. By maintaining ongoing contact and providing clear information, the Process Nurse may help mitigate anxiety, could potentially prevent conflicts, and might reduce the risk of aggressive behaviour towards healthcare personnel issues commonly exacerbated by overcrowding and long waiting times [19,20].

However, some limitations emerged from the participants' responses. Approximately one-third of the sample expressed uncertainty regarding the Process Nurse's ability to direct patients to appropriate specialists (22%) or to reduce the number of providers involved in the care process (20%), indicating possible ambiguity in the definition of responsibilities and authority boundaries. These findings highlight the importance of clearly delineating the scope of practice for the Process Nurse, supported by institutional protocols and interprofessional consensus, to ensure consistent and effective integration within the clinical workflow.

The study also found that 88% of participants perceived an overall improvement in the care provided by the National Health Service as a result of the Process Nurse's activities, suggesting that the perceived benefits of this role extend beyond the ED and contribute to a more coherent and efficient healthcare system. This perspective supports the idea that the Process Nurse can act as a bridge between emergency and territorial healthcare, promoting continuity of care and alignment with broader organizational objectives.

This study is subject to several methodological limitations that should be considered when interpreting the findings. First, the single-centre design limits generalisability to other settings, staffing configurations, and patient populations. Second, the sample is substantially imbalanced across professional groups (nurses n=55/74; physicians n=7/74), which restricts subgroup comparisons and may not fully capture medical staff perspectives. Third, selection bias and non-response bias cannot be ruled out, as participants were recruited through consecutive sampling and approached during their work shifts, and the response rate was 70,5%. Fourth, social desirability and acquiescence bias may have inflated positive perceptions of the Process Nurse, particularly given that participants were employed in the same unit where the role operates. Fifth, mode effects arising from the mixed online (22%) and paper (78%) administration may have introduced differential response tendencies. Future studies should address these limitations through multi-centre designs, objective outcome measures, and stratified analyses by professional role.

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CONCLUSIONS

The results of this study indicate that participants perceived the introduction of the Process Nurse within the Emergency Department of the Policlinico of Bari as a significant organizational and professional innovation. The findings reflect a strong consensus among healthcare professionals regarding the perceived effectiveness of this role in improving patient care quality, optimizing clinical pathways, and enhancing communication among the multidisciplinary team. Participants reported that the Process Nurse was perceived as a key figure in reducing waiting times, supporting continuous patient monitoring, and ensuring the timely activation of diagnostic and therapeutic interventions.

Moreover, the high level of agreement concerning the Process Nurse's perceived contribution to patient satisfaction and overall service quality suggests the added value of this professional figure in promoting a more efficient, patient-centered model of emergency care. By combining advanced clinical skills with strong organizational and communicative competencies, the Process Nurse is perceived to bridge the gap between patients, families, and healthcare professionals, thereby fostering greater trust and continuity of care.

Nonetheless, some challenges remain particularly regarding the need for clearer role definition, strengthened interprofessional collaboration, and consistent medical support. Addressing these aspects will be essential to fully consolidate and expand the Process Nurse's integration into emergency healthcare teams.

In conclusion, the study provides preliminary perception-based evidence supporting the Process Nurse as a promising element in the modernization of emergency care delivery. The positive perceptions expressed by the multidisciplinary staff suggest that this model may enhance the efficiency and safety of care processes and contribute to the sustainability of the healthcare system as a whole. Future research should aim to validate these findings through multi-centre studies with objective outcome measures such as ED length of stay, patient flow indicators, and clinical safety metrics to more robustly demonstrate the long-term impact of this innovative nursing role on clinical performance, patient outcomes, and organizational resilience.

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