

After the uproar: an experimental investigation on debriefing among intensive care nurses

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ABSTRACT

Introduction: intensive care nurses face high levels of stress, which can affect their emotional well-being. Debriefing is a useful tool to process experiences, reduce stress, and improve team effectiveness, ultimately benefiting patients and their families. The DASH (Debriefing Assessment for Simulation in Healthcare) is one of the most widely used tools to assess the quality and impact of debriefing, both in real clinical settings and simulations. This study analyzes its effectiveness in supporting nurses after critical events.

Materials and Methods: the study, conducted at “San Camillo-Forlanini” Hospital in Rome, assessed the perception of debriefing among intensive care nurses using an adapted Italian version of the DASH questionnaire. The sample, composed exclusively of nurses, was selected due to their frequent exposure to high-stress situations. The questionnaires, distributed in June 2024 in paper format, were completed within 60 days. Anonymity and privacy were ensured.

Results: the DASH analysis highlights strengths and critical issues. The organization of the debriefing is positively evaluated, as is the maintenance of an engaging learning environment. However, difficulties emerge in encouraging peer exchange and recognizing team emotions. To improve debriefing effectiveness, adequate training, structured guidelines, and the promotion of in-depth discussions are essential. Effective feedback and constant monitoring can help reduce stress and burnout.

Conclusions: debriefing is essential for nurses’ well-being and the quality of care. To enhance its effectiveness, it is necessary to invest in training and in structuring the process, thus ensuring a safer work environment and better emotional support for staff.

Key words: debriefing; intensive care; emotional well-being; burnout; DASH (Debriefing Assessment for Simulation in Healthcare).

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Introduction

Intensive care units are extremely complex care settings, where several factors contribute to increased stress levels: patients are critically ill, decisions must be made quickly and decisively, workloads are high, traumatic experiences are frequent, and there is a need to provide emotional support to families.^{1,2} Intensive care nurses often face high levels of stress without adequate emotional support or structured moments to share experiences and reflect. Debriefing can represent a valuable opportunity to process traumatic experiences and manage emotions and practical behaviors to improve patient outcomes.^{3,4}

Debriefing is defined as a post-event practice that allows healthcare workers to reflect on their experiences, and it is currently considered an essential component of training in simulated healthcare settings.⁵ The goal is to engage participants in a critical analysis of what occurred during the simulation experience in relation to learning objectives, facilitating reflection and discussion, and offering learning opportunities that positively impact clinical practice and decision-making. Understanding the perception and effectiveness of debriefing among intensive care nurses may help implement support practices and improve emotional well-being.³

The DASH (Debriefing Assessment for Simulation in Healthcare) questionnaire is a standardized tool used to assess the quality of debriefing in healthcare simulations and training programs, examining organization, effectiveness in identifying performance gaps, and the promotion of an engaging learning environment.⁶

Through the use of validated questionnaires, information was gathered directly from nurses to give voice to their experiences and opinions regarding this aspect of intensive care nursing practice.

The main objective of this research is to evaluate the perception and effectiveness of debriefing among intensive care nurses using the DASH questionnaire. The analysis of the responses allowed assessing the extent to which debriefing contributes to emotional well-being and resilience in a high-stress environment such as the intensive care unit.

The primary question posed is: “How do intensive care nurses perceive the effectiveness of debriefing in supporting their emotional well-being?”. The study also investigated the frequency and obstacles to implementing debriefing in intensive care units. Expected results may reveal different perspectives: some may view debriefing as an important opportunity for reflection³, while others may be more skeptical. In both cases, a reduction in stress and an improvement in emotional well-being among participants was hypothesized.

Materials and Methods

This cross-sectional survey aims to evaluate the perception and effectiveness of debriefing among intensive care nurses at the “San Camillo-Forlanini” Hospital in Rome, Italy. This approach provides an immediate overview of staff opinions and experiences without long-term follow-up. Data collection was carried out using the DASH questionnaire, designed to investigate the organization of debriefing and its role in emotional support and learning in a high-intensity setting. The DASH is a validated instrument, administered together with a section dedicated to the collection of socio-demographic data.

The study setting includes the intensive care units, selecting nurses through convenience sampling, composed exclusively of nurses exposed daily to emergency situations. The questionnaires,

distributed in paper format by nurse coordinators in June 2024, were collected by July 2024, allowing sufficient time for completion.

The investigation thus provides a detailed overview of the impact of debriefing on improving care quality and the emotional well-being of intensive care nurses.

The DASH questionnaire was developed by the Center for Medical Simulation (CMS), Boston Massachusetts USA, in 2012, to assess the quality and effectiveness of debriefing in healthcare simulations through a standardized tool.⁷ This instrument was created to analyze the behaviors of instructors during debriefing, facilitating learning and improving the performance of healthcare professionals. The DASH helps identify and address gaps in clinical and communication skills, fostering a safe and stimulating learning environment.⁶

The DASH consists of six key elements that define the characteristics of an effective debriefing: creating an engaging learning environment, the structuring of the debriefing, stimulating critical discussions, identifying performance gaps, and supporting the professional development of participants.⁸ For its evaluation, it uses a seven-point Likert scale ranging from extremely ineffective to excellent, ensuring reliable measurement of debriefing quality.⁹ Thanks to its scientific validation and international dissemination, the DASH is recognized as an essential instrument in healthcare education, contributing to the improvement of educators’ competence and ensuring effective debriefing both in simulation contexts and real clinical practice.^{7,8}

Following authorization from the copyright holders, the DASH questionnaire was translated into Italian, reviewed by two expert researchers with a certified advanced/proficient English level. Some modifications were made to adapt this instrument to the study context and make it more coherent with the objectives of the research. Among the implemented changes, the term “instructor” was replaced with “nursing team” and the term “simulation” with “event occurred.”

This study involved the administration of validated questionnaires in the Intensive Care Units of the “San Camillo-Forlanini” Hospital, following authorization from the Director of the Department of Health Professions.

Before completing the questionnaire, participants were provided with an explanatory introduction regarding the purpose of the questionnaire. Anonymity and compliance were ensured according to current privacy regulations, explaining that the data would be used exclusively for research purposes and processed anonymously and in aggregate form.

The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki.

The collected data were analyzed using Excel and descriptive statistical methods. Means and Standard Deviations (SD) were calculated to describe participants’ responses, allowing a quantitative evaluation of debriefing quality and the effectiveness of the DASH as an assessment tool.

Results

A total of 65 nurses completed the questionnaire in full. Analysis of the socio-demographic data shows that the sample is evenly distributed between the two genders (Figure 1), with a slight prevalence of female nurses (50.8%; n=33) compared to males (49.2%; n=32). The average age is 41 years (SD: men 10.30 years; women 10.67 years).

Regarding professional experience, 32.3% (n=21) of the nurses have between 20 and 30 years of employment, while 29.2% (n=19) have between 1 and 5 years of experience. Only 4.6% (n=3) of the

sample has more than 30 years of service. The average length of service in the current department is 9 years, indicating a good level of experience within this specific context.

Analysis of educational qualifications shows that most nurses hold a bachelor’s degree or equivalent qualification (73.9%; n=48), while 26.1% (n=17) have a master’s degree. None of the participants reported a doctoral degree.

A noteworthy finding concerns training in debriefing: 38.5% (n=25) attended specific courses on this practice, while 61.5% (n=40) received no training at all, highlighting the need to implement dedicated educational programs.

Moving on to the analysis of responses to the DASH questionnaire, several strengths and weaknesses emerge regarding the debriefing as perceived by the nurses (Figure 2). Concerning the evaluation of the environment, most of the sample assigned a score of 3 on the Likert scale, indicating that the setting in which debriefing occurs is perceived as not very favorable.

A positive aspect concerns the team’s ability to engage: 50% (n=32) of the nurses assigned a score of 5, suggesting an active and participatory context. However, the structure and organization of debriefing were mostly rated with a score of 4, highlighting the need for improvements in the planning of this activity.

Another significant finding concerns the depth of discussions: 46.2% (n=30) assigned a score of 3, indicating difficulty in conducting in-depth analyses of performance. Regarding feedback, there is a balance between scores of 4 and 5, suggesting that feedback is generally clear but accompanied by some uncertainties in the performance evaluation process.

Finally, analysis of the items related to performance shows a predominance of average scores, suggesting that nurses consider the ability to recognize both strengths and areas for improvement in their work as still needing enhancement. These data provide a clear picture of nurses’ perceptions of debriefing, highlighting both positive elements and areas requiring improvement, with important implications for training and the organization of this practice

Discussion

The analysis of the collected data highlights a varied perception regarding the effectiveness of debriefing in different professional contexts. The debriefing process is a crucial element for performance improvement and the consolidation of learning, and it must be properly structured in order to provide concrete benefits.²

A key aspect that emerged concerns the preparation of an appropriate environment for debriefing, which received mixed evaluations. Although some participants highlighted positive elements, the average responses place this phase between “somewhat effective” and “average.” This suggests that, while the importance of an adequate setting is recognized, organizational or structural limitations may hinder its overall effectiveness.¹⁰

Another significant finding relates to the nursing team’s ability to maintain an engaging learning environment. Here, the evaluations were predominantly positive, with a clear majority of responses indicating an effective approach in this area. This suggests that, when conducted properly, debriefing can represent a highly valuable

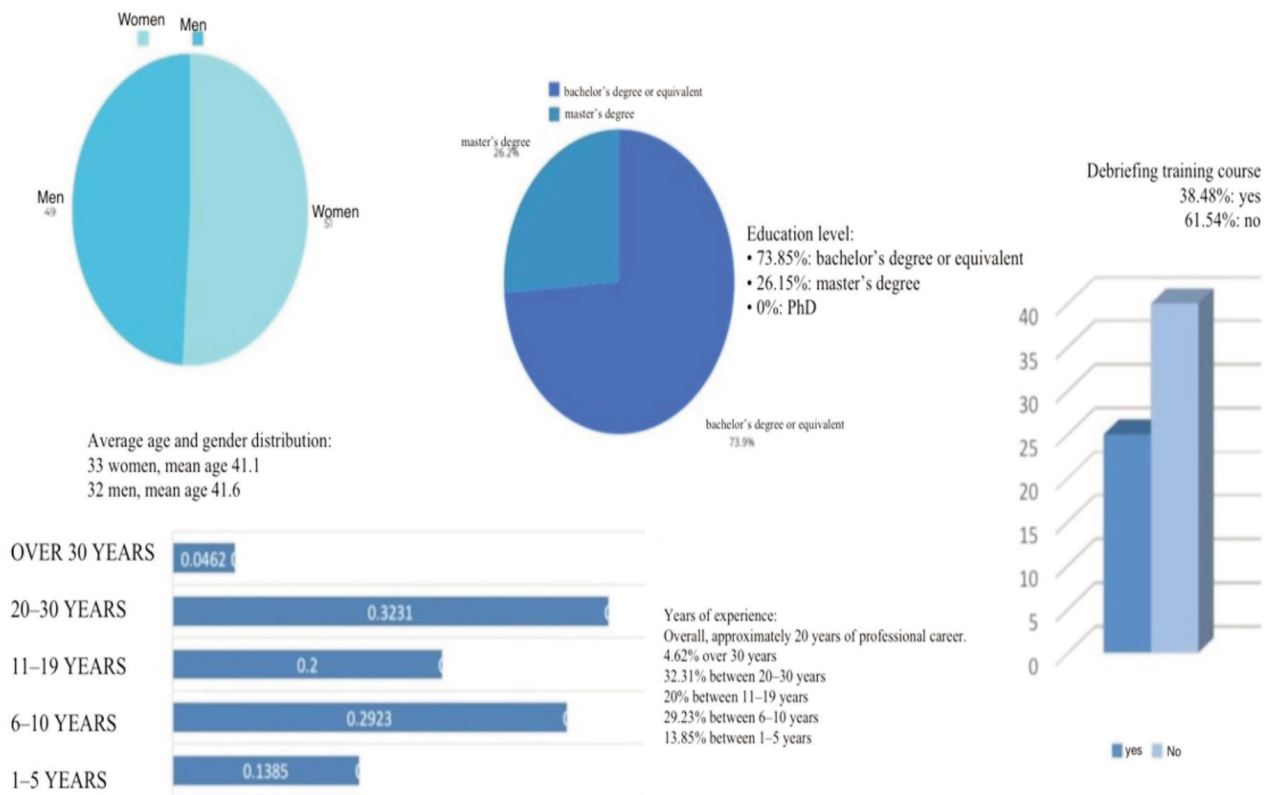


Figure 1. Socio-demographic data.

learning opportunity, fostering the sharing of experiences and the improvement of professional skills.¹¹

Regarding the structure of the debriefing, the data show a broad perception of effectiveness, with responses ranging from “somewhat effective” to “very effective.” This result highlights that, despite some critical issues, the process is generally well organized and able to provide a clear overview of the situations addressed, facilitating event analysis and the identification of possible improvements.⁷

However, critical issues emerge when analyzing the ability to create reflective discussions among team members. In this area, nurses’ perceptions tend to fall under “often ineffective or poor,” indicating that opportunities for discussion during debriefing are not always perceived as truly constructive. This may be due to several factors, including limited practice in critical reflection or hierarchical dynamics that may hinder open and sincere communication.¹² Another relevant point concerns the team’s ability to recognize and provide effective feedback. While the ability to highlight the positive aspects of performance is generally good, some difficulty emerges in emotionally supporting team members and understanding their reactions. This aspect is of fundamental importance, as well-structured feedback not only improves competencies but also contributes to the psychological well-being of healthcare professionals.³ Finally, the last area investigated

concerns the support offered by the team for performance improvement and the promotion of a positive learning environment. The results show an ambivalent perception, with evaluations ranging from “often ineffective” to “somewhat effective.” This suggests that, although some professionals perceive adequate support, others may feel less supported or motivated in their growth process.⁵ Overall, the collected data highlight the need to strengthen several key aspects of debriefing by investing in targeted training strategies and greater standardization of practices. The adoption of structured tools for debriefing management could represent an effective solution to ensure a more consistent and functional process, reducing the risk of ineffective communication and improving the overall quality of learning.¹

Limitations

Some limitations should be acknowledged. First, the sample size (65 participants from an initial sample of 150) could compromise the results, thus limiting the ability to generalize the findings to a larger population. The main reason identified for nurses not completing the questionnaires was essentially a lack of time, probably given the heavy workload in intensive care units. This condition reduced the number of participants and limited the number of available data. The single-center design can also be considered a

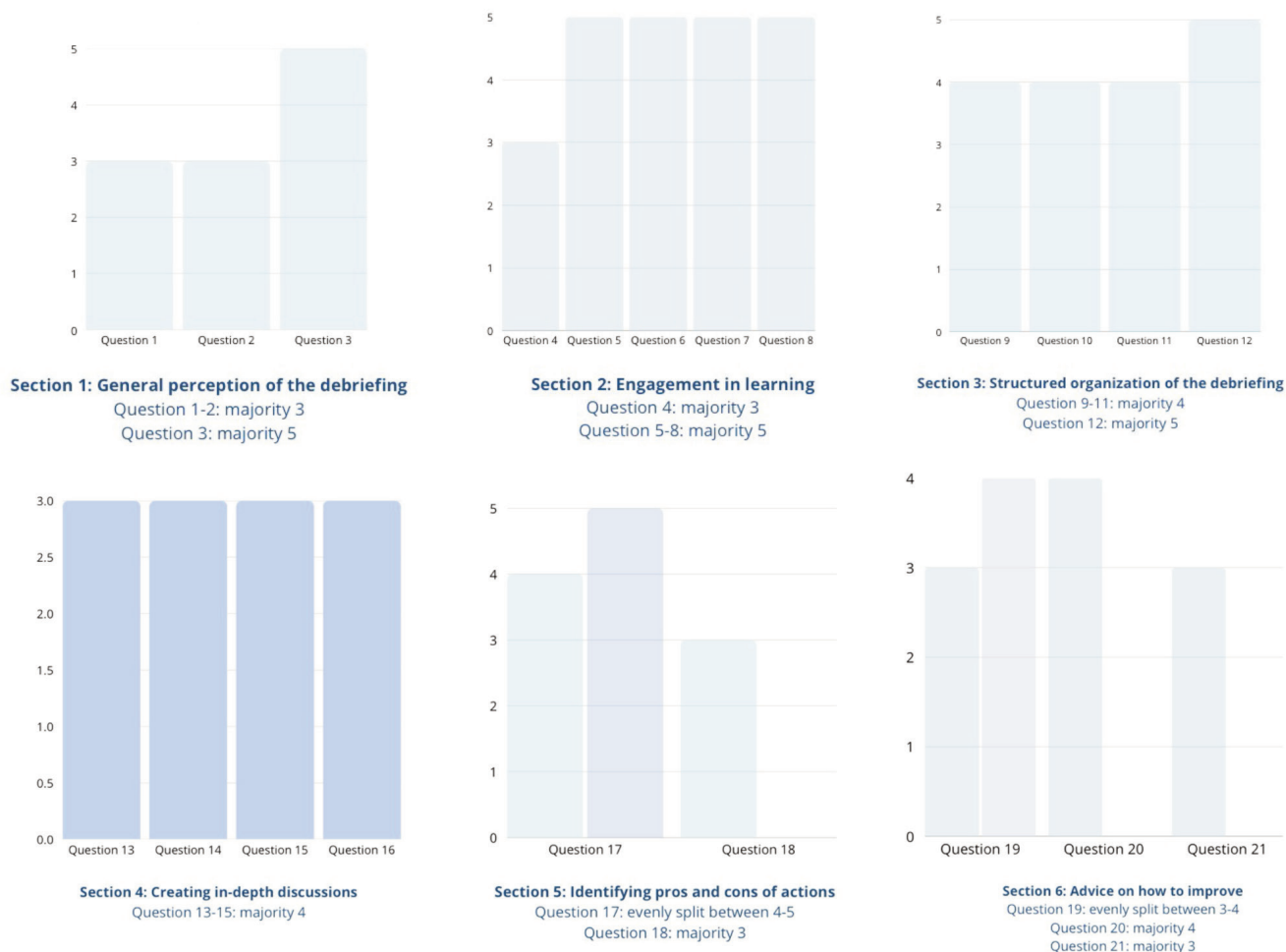


Figure 2. Graph of the results obtained in the study.

limitation, as debriefing conditions may vary across different work environments and organizational structures. The measurement tools used, with some questions adapted to the context of the study, could have influenced the validity of the measurement and the ability to compare these data with previous studies. Finally, it is essential to consider a potential response bias, where participants may have responded “conveniently” or “hastily” rather than “honestly,” taking time to reflect on the question. These limitations suggest a cautious interpretation of the results, highlighting the importance of conducting further studies to fully understand the impact of debriefing in high-risk environments.

Conclusions

The study provides an analysis of the strengths and weaknesses of the debriefing process within the nursing team using the DASH, adapting for a real context an instrument used for simulations. The results highlight an environment perceived as less favorable, good team engagement, and the need to improve the structure and organization of debriefing. Furthermore, there was difficulty in conducting in-depth discussions about performance and in providing clear feedback, suggesting room for improvement in recognizing successes and critical areas.

To deepen research on debriefing, it would be useful to expand the sample to include professionals from different healthcare facilities to obtain a more comprehensive view. The introduction of specific training courses and the organization of focus groups could provide concrete tools to improve the quality of debriefing and its impact on training. Additionally, a comparative analysis of pre- and post-simulation results could offer a clearer picture of the effectiveness of the strategies implemented. Investing in the improvement of debriefing practices not only promotes the professional development of nurses but also contributes to enhancing patient care quality, creating a continuous pathway of learning and growth.

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