KNOWLEDGE, SKILLS, AND ATTITUDES IN THE IMPLEMENTATION OF BUNDLES IN INTENSIVE CARE UNITS

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ABSTRACT

Objective: This study aimed to evaluate the adherence of health professionals to bundle-based guidelines in Intensive Care Units (ICUs). **Methods**: It was a cross-sectional, exploratory, and descriptive study conducted between September and December 2023 in ICUs of hospitals in *Anápolis – GO*, with a sample of health professionals selected by simple random probabilistic sampling. Data collection was carried out through semi-structured interviews and questionnaires addressing sociodemographic aspects and practices related to bundles, with descriptive statistics and frequency analysis applied. **Results**: The results showed that most participants were from the private hospital (64.86%) and worked the night shift (54.17%), with the predominant age group being 25 to 35 years (58.33%) and most being female (94.30%). The majority of professionals knew the elements of the bundles (78.38%) and had participated in training on the subject (70.27%), although with variations in frequency. Adherence to recommended practices such as protective barriers and hand hygiene was high, and perceptions regarding the effectiveness of communication and the importance of bundles for care were positive, with most professionals feeling confident in implementation. **Conclusion**: It is concluded that adherence to bundle-based practices is significant in the ICUs studied, with good knowledge and training among professionals, although there are areas for improvement, especially in the regularity of training and in the culture of incident reporting, making continuing education and the promotion of a safety culture essential to enhance the prevention of healthcare-associated infections.

Keywords: Healthcare-Associated Infections, Bundles, Intensive Care Units, Patient Safety, Infection Control.

Introduction

Healthcare-Associated Infections (HAIs) constitute a significant challenge for health services, resulting in increased morbidity, mortality, length of hospital stays, and costs, in addition to compromising the quality of care (GOMES; DA SILVA, 2010). To mitigate these problems, the adoption of "bundles" stands out as an evidence-based strategy effective in preventing and controlling these infections.

Patient safety is a crucial component in this context, with the mission of minimizing the risks of unnecessary harm associated with healthcare and preventing incidents that may lead to death, permanent or temporary harm, financial losses, and psychological impact on the patient, their family, and the professionals involved (ANVISA, 2021).

This study aims to evaluate the adherence of health professionals in an Intensive Care Unit (ICU) to bundle-based guidelines, identifying gaps in implementation and factors that influence

compliance. The intention is to improve adherence and the effectiveness of practices aimed at preventing healthcare-associated infections.

Methodology

This cross-sectional, exploratory, and descriptive study was conducted between September and December 2023, focusing on health professionals in Intensive Care Units (ICUs) in *Anápolis – GO*. The research included two ICUs of two hospitals: one serving health insurance and the Brazilian Unified Health System (SUS), and another exclusively for SUS.

Participants were approached in their workplaces, and the Informed Consent Form (TCLE) was signed prior to participation. The questionnaire was made available via Google Forms, evaluated by specialists in infection prevention and control, and completed in approximately 10 to 15 minutes. Descriptive analysis of continuous data was performed using median and interquartile range; for categorical data, absolute and relative frequencies were used.

The study followed the ethical standards established by Resolution 466/12 and was approved by the Ethics Committee of the *Universidade Evangélica de Goiás* (CAEE 7472123.8.0000.50766). Privacy and confidentiality of the data were ensured, with questionnaires identified only by codes. Data will be stored for 5 years and, after this period, destroyed.

. **Results**

Most participants were from the *Hospital Estadual de Goiânia (HEG)* (64.86%), while 35.14% were from *Santa Casa*. Regarding training time, most participants had between 1 and 5 years of professional experience (45.83%). A smaller number had more than 10 years (25.00%) or between 6 and 10 years (20.83%), while only 4.17% had less than 1 year of training.

As for work shifts, most professionals worked the night shift (54.17%), followed by 33.33% in the morning and 8.33% in the afternoon. Regarding age group, more than half of the participants (58.33%) were between 25 and 35 years old, while 16.67% were between 36 and 45 years old, and 12.50% between 46 and 55 years old.

Variáveis	Categorias	Frequência absoluta (n)	Frequência relativa (%)
Local de Coleta	HEG	24	64,86
	Santa Casa	13	35,14
Tempo de Formação (anos)	< 1	1	4,17
	1-5	11	45,83
	6-10	5	20,83
	> 10	6	25,00
Turno de Trabalho	Manhã	8	33,33
	Noite	13	54,17
	Tarde	2	8,33
Idade	25-35	14	58,33
	36-45	4	16,67
	46-55	3	12,50
	<25	2	8,33
Sexo	Feminino	33	94,30
	Masculino	2	5,70
Tempo de atuação na Instituição	< 1	1	4,35
	1-5	12	52,17
	6-10	4	17,39
	> 10	5	21,74
Regime de Plantão	Sim	23	95,83
Possui outro emprego?	Sim	4	16,67

Only 8.33% were under 25 years old. In terms of sex, most professionals were female (94.30%), with only 5.70% male. Concerning length of service in the institution, more than half (52.17%) had been at the institution for 1 to 5 years, while 21.74% had more than 10 years, and 17.39% between 6 and 10 years. Only 4.35% had been there less than 1 year. Regarding work regime, 95.83% of participants worked shifts, and 16.67% reported having another job in addition to the current one.

Table 1. Characterization of health professionals in the Intensive Care Units of a public and private hospital, 2024.

Discussion

When analyzing the age group of the participants in this study, a significant difference is noted compared to the average reported in other studies. More than half of the participants (58.33%) were in the 25 to 35 age group, indicating a younger composition compared to the average age of 40 years observed in previous studies. In contrast, only 16.67% of participants were between 36 and 45 years old, and 12.50% between 46 and 55 years old. In the studies by Nascimento et al. (2022) and Santos et al. (2021), it was identified that most nurses had an average age of 40 years, and the staff was predominantly female.

Most professionals (70.27%) had participated in training or educational programs on

"bundles." However, the frequency of these participations varied: 30.43% participated frequently, 39.13% rarely, and 26.09% never. All interviewees (100%) agreed that the implementation of "bundles" improves quality of care, and 81.08% felt confident in following the protocols in intensive care situations.

Conclusion

The data indicate strong adherence to protection and hygiene protocols, which are essential for patient safety and infection prevention. High adherence to "bundles" was observed. Despite this adherence, variability in training participation and resistance in some areas suggest the need to reinforce continuing education and the regularity of training practices. This is crucial to maintain the effectiveness of protocols and promote excellence in care.

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