



Cite as: CZEREPAK, Gabriela, JĘDRAS, Aleksandra, BEDNARZ, Katarzyna, POCIASK, Weronika, PONDO, Wojciech, GLIWA, Katarzyna, PEST, Jakub, CZAJKOWSKA, Weronika, ZOWCZAK, Wiktoria and BARSZCZ, Aleksandra. The Influence of Healthcare Professionals' Clothing Color on Patients' Perceptions: A Narrative Review. *Quality in Sport*. 2026;64:73630. <https://doi.org/10.12775/QS.2026.64.73630>

ARTICLE TIMELINE

Received: 22.06.2026. Revised: 12.07.2026. Accepted: 14.07.2026. Published: 15.07.2026.

The journal has been awarded 20 points in the parametric evaluation by the Polish Ministry of Higher Education and Science (Annex to the announcement of 05.01.2024, No. 32553). Unique Journal Identifier: 201398. Scientific disciplines assigned: Economics and finance (Field of social sciences); Management and Quality Sciences (Field of social sciences).

Punkty Ministerialne z 2019 – aktualny rok 20 punktów. Załącznik do komunikatu Ministra Szkolnictwa Wyższego i Nauki z dnia 05.01.2024 Lp. 32553. Posiada Unikatowy Identyfikator Czasopisma: 201398. Przypisane dyscypliny naukowe: Ekonomia i finanse (Dziedzina nauk społecznych); Nauki o zarządzaniu i jakości (Dziedzina nauk społecznych). © The Authors 2026.

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The Influence of Healthcare Professionals' Clothing Color on Patients' Perceptions: A Narrative Review

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Abstract

Modern medicine increasingly relies on a partnership model in which the patient's trust in medical staff plays a key role. When assessing the competence, credibility, and empathy of physicians, patients rely not only on clinical information but also on nonverbal cues, such as appearance and attire. The aim of this study was to compile and analyze current knowledge regarding the impact of medical attire—its color and style—on patients' perceptions of medical staff.

This study is a narrative literature review utilizing the PubMed and ScienceDirect databases. The analysis included publications from 2016 to 2025 concerning the impact of the color and type of medical attire on patients' perceptions of medical staff. The search strategy included combinations of keywords related to medical attire, clothing color, patient trust, fear of the dentist (dentophobia), and the doctor-patient relationship. After selecting the publications, nine studies were included in the analysis.

The analyzed studies showed that the color of medical attire influences the assessment of medical staff's professionalism, competence, empathy, and credibility. Shades of blue and navy blue were rated most positively, as they were associated with professionalism, calmness, and a high level of competence. The color black was consistently rated negatively and associated with lower levels of trust and empathy. Green uniforms were strongly associated with procedural specialties, particularly surgery, but did not always receive the highest ratings in terms of

interpersonal traits. In many studies, the white coat remained a significant symbol of professionalism, especially among older patients and in outpatient care. The results indicate that the color of medical attire is a significant element of nonverbal communication and influences how patients perceive medical staff, enhances patient comfort, and builds trust in the patient-physician relationship.

Keywords: Physician Attire; Patient Preference; Physician-Patient Relations; Nonverbal Communication; Medical Scrubs; White Coat; Patient Trust

Introduction

Modern medicine is moving away from a paternalistic model toward a collaborative approach with the patient, in which the patient's active participation in the therapeutic decision-making process plays a key role. One of the main factors determining this participation is trust in the physician (Wu et al. 2022).

Trust is a key element of the relationship between the patient and medical staff and is defined as the willingness to entrust one's health to another person with the conviction that they will act in the patient's best interest (Aboalshamat et al. 2024). It has been shown that patients who trust their doctors are more likely to accept proposed treatments, participate more actively in the therapeutic process, and experience lower levels of anxiety. Building trust, especially in the initial phase of clinical contact, is therefore crucial to the quality of healthcare (Pokhilenko et al. 2021, Aboalshamat et al. 2024).

In situations where medical knowledge is limited, patients often rely on available nonverbal cues, such as behavior, communication, or appearance, which can influence their assessment of healthcare providers' competence, credibility, and empathy, and play a significant role in building the doctor-patient relationship (Pokhilenko et al. 2021, Wu et al. 2022, Aboalshamat et al. 2024). These factors can significantly influence first impressions and the level of trust, and thus the course of the doctor-patient relationship (Xun et al. 2021).

A physician's attire plays a significant role in shaping patients' perceptions and constitutes an important element of nonverbal communication (Yoshikawa et al. 2020, Xun et al. 2021). Patients' preferences regarding physicians' attire vary and depend on many factors, such as age, cultural context, the setting in which care is provided, and the nature of the care (Yoshikawa et al. 2020).

The doctor's attire has a long tradition in medicine. The introduction of antiseptic practices and the development of evidence-based medicine in the 19th century contributed to the emergence of the white coat as a symbol of cleanliness, professionalism, and professional responsibility (Xun et al. 2021).

Despite the white coat's established status as a symbol of professionalism, its role in modern medicine is increasingly being questioned. Among other things, the potential risk of pathogen transmission is cited (Xun et al. 2021). Patient contact with medical staff is not limited solely to clinical aspects but also encompasses factors related to visual and emotional perception. The literature describes the so-called "white coat effect," which indicates that interaction with medical staff may be associated with increased stress levels and physiological reactions in patients. This suggests that medical attire serves not only a practical function but also a symbolic one, influencing how patients perceive staff (Pioli et al. 2018).

Contemporary changes in healthcare organization and the growing importance of comfort and functionality are contributing to a shift away from traditional attire toward alternative forms, such as scrubs or casual clothing. Consequently, analyzing the impact of various elements of attire—including its color and style—on patients' perception of medical staff is becoming increasingly important (Xun et al. 2021).

Aim

The aim of this study was to review and synthesize current evidence regarding patients' perceptions of the color of healthcare professionals' attire.

Materials and Methods

This study was a narrative review of the literature on the impact of the color and type of medical clothing on patients' perceptions of medical staff. The analysis was conducted using the

PubMed and ScienceDirect databases and included publications released between 2016 and 2025.

The search strategy was based on a combination of keywords. The following phrases, among others, were used: “medical clothing,” “scrubs,” “white coat,” “physician attire,” “medical uniform,” “color,” “patient perception,” “patient preference,” “trust,” “professionalism,” “anxiety,” “doctor–patient relationship,” and combinations thereof. Additionally, the literature cited in the eligible publications was analyzed to identify further potentially relevant studies.

The review included original research studies published in English that assessed the impact of the color or type of medical clothing on patients’ perceptions of medical staff, including assessments of competence, professionalism, trust, empathy, or anxiety levels. Studies conducted in both adult and pediatric populations were included, regardless of medical specialty or clinical setting.

Publications that did not meet the thematic criteria, review articles, commentaries, case reports, and studies that did not specifically examine the impact of the color or type of medical attire on patient perception were excluded. Publications not available in full text were also excluded.

After removing duplicates, an initial selection of publications was made based on titles and abstracts, followed by an analysis of the full texts of the selected articles. Ultimately, ten publications meeting the established criteria were included in the review. Data from individual studies were analyzed qualitatively, with particular attention paid to the type of clothing evaluated, color schemes, characteristics of the study population, and the impact of attire on patients’ perceptions of medical staff.

Results

The literature review included ten publications released between 2016 and 2026. Three main thematic groups of the analyzed studies were identified: studies on the impact of surgical gown color on the perception of competence, professionalism, and trust (3 studies), studies assessing patients’ preferences regarding physicians’ attire in the context of selected medical specialties and clinical settings (5 studies), and studies analyzing the impact of medical attire color on anxiety levels in pediatric patients (1 study). The individual groups were analyzed with varying degrees of detail, but they share a common observation—patients’ perception of healthcare

workers is a multifactorial phenomenon in which the color of attire is one of the key, though not the only, elements shaping first impressions and building the doctor–patient relationship

(Fig. 1).

Color / Type of Attire	Perceived Associations				Main Clinical Context / Notes
	Professionalism / Competence	Empathy / Care	Trust / Credibility	Anxiety (especially in children)	
 BLUE / NAVY BLUE	 - Highest ratings - Associated with professionalism and competence	 - Perceived as empathetic and caring - Conveys calmness and approachability	 - Strongly associated with high trust - Inspires confidence in patients	 - Associated with lower anxiety - Calming effect (especially in children)	Positive perception across various specialties and settings.
 GREEN	 - Associated with surgery and procedural specialties - Moderate ratings	 Neutral to slightly positive	 - Moderate trust - Context-dependent	 Neutral effect	Strongly linked to surgery and operating room environment.
 WHITE COAT	 - Symbol of professionalism, authority and tradition - High ratings, especially among older patients and in outpatient care	 Neutral to slightly positive	 Strong symbol of trust and credibility	 - May increase anxiety (white coat effect) - Context-dependent	Preferred in outpatient settings and by older patients.
 PINK	 Perceived as less indicative of competence in some studies	 Associated with care, warmth and friendliness	 Neutral effect	 Associated with lower anxiety in children	Often positively perceived in pediatric and dental settings.
 BLACK	 - Consistently rated lowest - Associated with negative traits	 Associated with low empathy	 Associated with low trust and credibility	 Associated with higher anxiety (in children)	Least preferred color across studies and populations.
 RED	 Negative or neutral perception	 Neutral effect	 Neutral effect	 Associated with higher anxiety in children	May increase anxiety in pediatric patients.

Legend:

-  Positive association
-  Negative association
-  Positive association
-  Negative association
-  Positive association
-  Negative association
-  Increased anxiety
-  Decreased anxiety
-  Neutral / Mixed findings

Note: Associations reflect the most consistent findings across the included studies. Perceptions are influenced by multiple factors, including clinical context, patient age, cultural background and type of healthcare setting.

Figure 1. Influence of medical attire colors on patients’ perceptions based on the analyzed studies.

Consistent results regarding the impact of scrubs color on the perception of doctors were obtained by Hribar et al., who conducted a survey among 113 participants evaluating photographs of doctors wearing surgical scrubs in four colors: light blue, navy blue, green, and black (Hribar et al. 2023). The color green was most frequently associated with the profession of a surgeon, while the color black was consistently linked to negative traits across all age groups—respondents were least likely to attribute competence, knowledge, credibility, and empathy to doctors in black attire. Doctors dressed in shades of blue were most often perceived as the most empathetic and trustworthy. It is worth noting that some respondents associated green uniforms with the attire of cleaning staff, and black ones with funeral home employees or a symbol of death, which indicates the significant role of cultural associations with color (Hribar et al. 2023). Similar trends were observed in a study by Hendry et al. conducted among 483 participants evaluating dental hygienists wearing aprons in five colors: pink, burgundy,

turquoise, navy blue, and black (Hendry et al. 2025). Navy blue was the most frequently chosen color among both male (39.7%) and female (38.1%) evaluators and was primarily associated with knowledge and skills. The color pink was perceived as an expression of care, but at the same time as less indicative of competence, while black scrubs were rated as the least associated with patient care. No significant differences in preferences were found based on gender, but they were observed depending on age group (Hendry et al. 2025). Firouzbakht et al., in a study involving 562 respondents, confirmed that navy blue and blue receive the highest ratings in terms of competence, knowledge, and trust, while black is consistently rated the lowest (Firouzbakht et al. 2024). Furthermore, the authors demonstrated that a fitted scrubs design was rated significantly higher than a traditional design in nearly all domains, indicating that not only color but also the cut of medical attire influences a patient's perception of a physician (Firouzbakht et al. 2024).

The significance of scrubs color in the context of specific medical specialties is confirmed by further studies. Xu et al. demonstrated that among 516 surgical patients in China, the anesthesiologist's green attire with a matching green lab coat received the highest ratings, and most respondents considered the doctor's attire an important element in building trust during the preoperative visit—particularly in the opinion of older patients (Xu et al. 2024). In contrast, Mun et al. noted the dominant role of the white coat in a study of 100 neurosurgical patients in South Korea: formal attire combined with a white coat was perceived as by far the most appropriate, and the difference compared to other clothing styles was statistically significant (Mun et al. 2019). Similar conclusions emerge from a study by Jennings et al., in which 85 patients at an orthopedic clinic evaluated four styles of surgeon attire—the white coat was preferred in all analyzed categories, including confidence, intelligence, trust, and safety, although no significant difference was found between the white coat and the surgical uniform in terms of trust. Furthermore, doctors in surgical scrubs were perceived as more neat, and patients reported a greater willingness to share personal information when the surgeon wore a medical uniform (Jennings et al. 2016).

Eikelenboom-Boskamp et al. highlight the variation in preferences depending on the clinical context and demographic characteristics; they surveyed 4,062 patients across ten medical centres (Eikelenboom-Boskamp et al. 2022). Formal attire with a white coat received the highest ratings in outpatient settings, whereas in hospital environments, surgical scrubs were more widely accepted, as they were perceived as more appropriate for the surgical setting.

Casual attire was consistently rated lowest across all domains, and older patients clearly preferred formal attire more often (Eikelenboom-Boskamp et al. 2022). The levelling effect of standardised attire on the perception of doctors, regardless of gender, is confirmed by Seah et al., who, in a study of 150 patients in Singapore, demonstrated that the surgical uniform received significantly higher ratings in all domains than formal attire. Importantly, differences in the assessment of professionalism between female and male doctors disappeared when both wore medical uniforms (Seah et al. 2024).

A separate issue is the effect of clothing colour on anxiety levels in paediatric patients. Rafatjou et al. in a randomised clinical trial involving 132 children aged 6–9 years undergoing dental treatment demonstrated that the colours blue and pink in the dentist’s attire and the clinic’s décor contributed to a reduction in heart rate and anxiety, whilst the colours red and black had the opposite effect (Rafatjou et al. 2021). It is noteworthy that the effect of the distraction technique used on stress levels was not statistically significant, which highlights the independent and significant role of the colour of the dentist’s attire in managing anxiety in the youngest patients (Rafatjou et al. 2021).

By collating the results of the analysed studies, several recurring patterns can be identified. Navy blue and blue consistently received the highest ratings for competence, professionalism and trust, regardless of medical specialism, whilst black was regularly associated with negative traits (Hribar et al. 2023, Firouzbakht et al. 2024, Hendry et al. 2025). The white coat remained a strong symbol of professionalism, particularly in outpatient settings and among older patients, and preferences were further influenced by the clinical context, medical specialism and cultural factors — indicating the need for a flexible approach to dress codes in healthcare (Jennings et al. 2016, Mun et al. 2019, Eikelenboom-Boskamp et al. 2022).

Discussion

The results confirm that the color of medical attire is a significant element of nonverbal communication, influencing patients’ first impressions and their assessment of the physician. The most consistent findings pertain to the positive perception of shades of blue and navy blue, which are consistently associated with professionalism, calmness, and a high level of competence (Hribar et al. 2023, Firouzbakht et al. 2024, Hendry et al. 2025). This interpretation is supported by color psychology, where these colors are linked to a sense of security and stability.

In contrast, the color black was consistently rated the lowest in all the studies analyzed. In the study by Hribar et al., it was noted that this may stem from negative cultural connotations, such as associations with mourning or death (Hribar et al. 2023). The consistency of this result across different populations suggests that this is a relatively universal phenomenon (Firouzbakht et al. 2024, Hendry et al. 2025).

Also noteworthy is the role of the color green, which—despite strong associations with surgery—does not always receive the highest ratings in terms of interpersonal traits (Hribar et al. 2023). This may indicate an evolution in social expectations regarding a doctor's appearance and a gradual shift away from traditional medical symbols.

A key finding is that the influence of clothing color is not independent of other elements of appearance. A study by Firouzbakht et al. showed that the cut of the outfit significantly modifies the perception of the doctor, with tailored clothing being rated more positively (Firouzbakht et al. 2024). In turn, studies on general attire indicate that patient preferences depend on the clinical context—formal attire with a white coat is preferred in outpatient care, whereas scrubs are more widely accepted in hospital settings (Jennings et al. 2016, Mun et al. 2019, Eikelenboom-Boskamp et al. 2022). The findings of Seah et al. further suggest that surgical scrubs may, in some situations, be perceived as more functional and confidence-inspiring (Seah et al. 2024).

The significance of clothing color extends beyond mere perception in the pediatric population. A study by Rafatjou et al. demonstrated that appropriate color selection can significantly reduce anxiety levels in children, which has direct clinical implications (Rafatjou et al. 2021). This indicates that color can serve not only an image-related function but also a therapeutic one.

Most studies have been conducted in a hospital setting, while significantly less attention has been devoted to outpatient and community care. The results suggest that in primary care, patients often prefer formal attire with a white coat, although its importance may be diminishing in certain populations (Yoshikawa et al. 2020).

When discussing the impact of the color of medical attire on patients' perceptions, one cannot overlook the phenomenon known as white coat syndrome, which serves as a clinical illustration

of the powerful influence that medical staff attire has on a patient's psychophysical state. This syndrome, which includes white coat hypertension and the white coat effect, is characterized by elevated blood pressure in clinical settings while blood pressure readings at home or during ambulatory monitoring remain normal (Pioli et al. 2018, Mancina et al. 2021). This phenomenon affects an estimated 15–30% of patients with elevated blood pressure measured in the doctor's office and is associated with an increased risk of developing sustained hypertension (Mancina et al. 2021). Its pathophysiology is complex—it involves activation of the sympathetic nervous system in response to stimuli associated with the medical environment, including the mere sight of a white coat, which can trigger a “fight-or-flight” response in patients (Pioli et al. 2018, Avasia et al. 2025). It is worth noting that the white coat plays an ambivalent role in this context—on the one hand, it inspires trust and is associated with professionalism; on the other, it can induce anxiety and a sense of subordination (Tiang et al. 2017). Crutzen and Adam demonstrated that patients who expressed a preference for doctors in white coats simultaneously rated them as less friendly and less approachable, which confirms the dual nature of this symbol (Crutzen and Adam 2022). These observations correspond with the findings of this review regarding the role of color in shaping perceptions of physicians and suggest that the choice of colors for medical attire may have not only an image-related dimension but also a measurable impact on patients' physiological parameters. Recent narrative reviews indicate that improving the doctor–patient relationship, including through the conscious selection of nonverbal communication elements such as attire, may contribute to reducing situational anxiety and thereby mitigate the white coat effect (Nuredini et al. 2020, Avasia et al. 2025).

However, the limitations of the analyzed studies should be emphasized. Many of them are based on the evaluation of static images or hypothetical scenarios, which limits their ecological validity (Hribar et al. 2023, Hendry et al. 2025). Furthermore, some studies were conducted in homogeneous populations, which may affect the generalizability of the results. Another significant limitation is the failure to account for all factors influencing the perception of the physician, such as verbal communication, body language, or the patient's experiences.

In summary, the color of medical attire is an important factor influencing a physician's perception, though it is secondary to the clinical context and other elements of appearance. The most favorable effects are observed for shades of blue and navy blue, while the color black is consistently associated with a negative perception. The results of the analyses suggest that the

optimal choice of attire should take into account both the clinical environment and the characteristics of the patient population.

Conclusions

The color of medical scrubs influences patients' perceptions of medical staff, particularly in terms of professionalism, competence, and trust. Shades of blue and navy blue were rated most positively, while black was consistently associated with a negative perception. However, patient preferences also depend on the clinical context, age, and cultural factors; therefore, the selection of medical attire should take into account the specific nature of the work environment and the needs of a given patient group. Further multicenter studies conducted in diverse cultural settings are needed to better understand the impact of medical attire on patient perceptions.

Disclosure

Author Contributions:

Conceptualization: GC, AJ, KB, KG, WP

Methodology: WP, JP, AB, WZ, WC

Formal analysis: GC, AJ

Investigation: KB, KG

Data curation: WP

Writing – original draft preparation: GC, AJ, KB, KG, WP

Writing – review and editing: WP, JP, AB, WZ, WC

Supervision: WP, JP, AB

Project administration: WZ, WC

All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

Acknowledgments: Not applicable.

Conflict of Interest: The authors declare no conflict of interest.

Declaration of the use of generative AI and AI-assisted technologies in the writing process.

During the preparation of this manuscript, the authors used ChatGPT (OpenAI) exclusively for language editing, grammar correction, and translation support. Following the use of this tool, the authors carefully reviewed and edited the manuscript and take full responsibility for the final content of the publication.

References

1. Wu Q, Jin Z, Wang P. The Relationship Between the Physician-Patient Relationship, Physician Empathy, and Patient Trust. *J Gen Intern Med*. 2022 May;37(6):1388-1393. 10.1007/s11606-021-07008-9
2. Aboalshamat K, Alzahrani E, Maqlan A, Almatrafi A, Alsulami A. Collaborative attitudes and trust among medical and dental professionals in Saudi Arabia. *PLoS One*. 2024 Aug 29;19(8):e0309744. 10.1371/journal.pone.0309744
3. Pokhilenko I, van Esch TEM, Brabers AEM, de Jong JD. Relationship between trust and patient involvement in medical decision-making: A cross-sectional study. *PLoS One*. 2021 Aug 26;16(8):e0256698. 10.1371/journal.pone.0256698
4. Xun H, Chen J, Sun AH, Jenny HE, Liang F, Steinberg JP. Public Perceptions of Physician Attire and Professionalism in the US. *JAMA Network Open*. 2021 Jul 30;4(7):e2117779.

10.1001/jamanetworkopen.2021.17779

5. Yoshikawa Y, Matsuhisa T, Takahashi N, Sato J, Ban N. A survey of Japanese physician preference for attire: what to wear and why. *Nagoya J Med Sci.* 2020 Nov;82(4):735-745.
10.18999/nagjms.82.4.735
6. Pioli MR, Ritter AM, de Faria AP, Modolo R. White coat syndrome and its variations: differences and clinical impact. *Integr Blood Press Control.* 2018 Nov 8;11:73-79.
10.2147/IBPC.S152761
7. Hribar CA, Chandran A, Piazza M, Quinsey CS. Association Between Patient Perception of Surgeons and Color of Scrub Attire. *JAMA Surg.* 2023 Apr 1;158(4):421-423.
10.1001/jamasurg.2022.5837
8. Hendry C, Maayta N, Nafea L, Aranda V, Oyoyo U, Kwon SR. Scrub Color Affects Perceived Professionalism of Dental Hygienists: A Cross-sectional Study. *J Contemp Dent Pract.* 2025 Mar 1;26(3):223-228.
10.5005/jp-journals-10024-3836
9. Firouzbakht PK, Zhang A, Nguyen DC, Slovacek C, Daytz AE, Tanna N, Chen K. Public Perception of Scrub Color and Style in Plastic Surgery. *Plast Reconstr Surg Glob Open.* 2024 Jun 7;12(6):e5888.
10.1097/GOX.0000000000005888
10. Xu X, Lu Z, Liu Z, Han Y, Zhang Y, Shen L. Patient Preferences for Anesthesiologist Attire During Preoperative Visits in China: A Cross-Sectional Survey. *Patient Prefer Adherence.* 2023 Oct 2;17:2421-2431.
10.2147/PPA.S430942
11. Mun HW, Kim JH, Ahn JH, Chang IB, Song JH, Oh JK. Patient's Preference on Neurosurgeon's Attire and Appearance: A Single Center Study in Korea Cross-Sectional Study. *Biomed Res Int.* 2019 Apr 9;2019:3893049.

10.1155/2019/3893049

12. Jennings JD, Ciaravino SG, Ramsey FV, Haydel C. Physicians' Attire Influences Patients' Perceptions in the Urban Outpatient Orthopaedic Surgery Setting. *Clin Orthop Relat Res*. 2016 Sep;474(9):1908-18.
10.1007/s11999-016-4855-7
13. Eikelenboom-Boskamp A, Huis A, Saris K, Stobernack T, de Leeuw M, Hulscher M, Voss A. Preferences for healthcare worker attire among nursing home residents and residents' preferences as perceived by workers: A cross-sectional study. *Int J Nurs Stud Adv*. 2022 Dec 1;5:100112.
10.1016/j.ijnsa.2022.100112
14. Seah A, Ng K, Ang T, Ho SWL. Patient Perspectives Regarding Healthcare Professional Attire. *Cureus*. 2024 Mar 29;16(3):e57157.
10.7759/cureus.57157
15. Rafatjou R, Ahmadi B, Farhadian M, Moghadam NE. Evaluation effect of color in dental office and dentist's uniform while using two different distraction techniques on injection anxiety of 6-9 years' old children referring to Hamedan Dental School: Randomized clinical trial. *Dent Res J (Isfahan)*. 2021 Sep 25;18:71.
10.4103/1735-3327.326644
16. Mancina G, Facchetti R, Bombelli M, Cuspidi C, Grassi G. White-Coat Hypertension: Pathophysiological and Clinical Aspects: Excellence Award for Hypertension Research 2020. *Hypertension*. 2021 Dec;78(6):1677-1688.
10.1161/HYPERTENSIONAHA.121.16489.
17. Avasia A, Medipally M, Parasnith M. White Coat Hypertension in Primary Care: A Narrative Review. *Cureus*. 2025 Oct 23;17(10):e95256.
10.7759/cureus.95256
18. Tiang KW, Razack AH, Ng KL. The 'auxiliary' white coat effect in hospitals: perceptions of patients and doctors. *Singapore Med J*. 2017 Oct;58(10):574-575.

10.11622/smedj.2017023

19. Crutzen C, Adam S. "What if It's not Just an Item of Clothing?" - A Narrative Review and Synthesis of the White Coat in the Context of Aged Care. *Psychol Belg.* 2022 Feb 23;62(1):62-74.

10.5334/pb.1138

20. Nuredini G, Saunders A, Rajkumar C, Okorie M. Current status of white coat hypertension: where are we? *Ther Adv Cardiovasc Dis.* 2020 Jan-Dec;14:1753944720931637.

10.1177/1753944720931637