

PATIENTS' PERCEPTION OF NON-STANDARD APPEARANCE OF NURSING STAFF

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ABSTRACT

Introduction: Over the years, nurses have been considered models of care and neatness, dressed in a stiff white uniform. Recently, nursing staff have been choosing uniforms due to the variety of colours and comfort of wearing. Various forms of body decoration are also becoming popular among this professional group.

Aim of the study was assessment of patients' perception of non-standard appearance of nursing staff.

Material and methods: The study was conducted using the diagnostic survey method using a questionnaire. The study material was collected between March and June 2022. The survey questionnaire consisted of 5 closed and semi-open questions and 5 specific questions. A total of 1267 patients completed the survey questionnaires, and 1109 correctly completed survey questionnaires were analysed. Each respondent gave informed consent to conduct the study. All results are statistically significant when $p \leq 0.05$.

Results: Most patients were not bothered by nursing staff having tattoos in a visible place (64.8%). Piercing in specific places of the body by nurses was accepted by 55.8% of respondents. One third (33.8%) of respondents were against nursing staff having non-standard hair colours. Most of the respondents believed that nursing staff should be able to wear medical clothing in any colour of their choice (81%).

Conclusions: The attitude of patients towards visible body modifications used by nursing staff is individual. Older people, men, and rural residents are less likely to accept the use of forms of body decoration among nursing staff compared to younger people, women, and urban residents.

Key words: nursing, patients, tattooing.

INTRODUCTION

Over the years, the image of a nurse has systematically changed, starting with the perception of the profession as a feminine one, whose activities focused mainly on protection, care, bathing, and washing. The next stage was shaping the image of a nurse as characterised by humility, dedication, and unconditional devotion to the case. Currently, nursing in Poland is a profession that educates at the academic level. This profession is becoming more prestigious, but the approach of society is highly individual. An unequivocal assessment of the perception of this image is very problematic; it is associated with the creation and consolidation in society of stereotypes that are not necessarily positive regarding the profession of a nurse [1, 2].

The image of nurses is associated with the patients' assessment of their appearance and uniforms. In the public's opinion, nurses are considered a model of care and neatness. They are also characterised by having

a uniform white, starched apron and shoes in the same colour. The literature also describes them as representatives of the "white bonnet profession". The wearing of such uniforms by nurses in the 20th century was their duty and symbolised their profession. Older people (above 60 years of age) are used to the traditional nursing outfit, and due to the appearance of various uniforms, they have a problem with recognising them among other hospital employees. Currently, nursing staff choose a variety of uniforms, guided primarily by their own preferences and comfort [3, 4].

Various methods of decorating and beautifying the human body have been practiced since antiquity. These include tattoos, piercings, and hair colouring. Contemporary ways of decorating the body seem to be completely different compared to those from the past, but they have retained some traditional elements. While in the past body tattoos and piercings were very often perceived as negative behaviours that did not reflect well on their owner, now they are increasingly recognised as forms of self-expression and

personality. Currently, the acceptance of body adornment among various professional groups, including nursing staff, has increased. Despite widespread acceptance, medical staff often choose to hide their beautified body due to the fear that patients may perceive them as less professional [5, 6].

The aim of the study was to assess patients' perception of non-standard appearance of nursing staff.

MATERIAL AND METHODS

The study was conducted using the diagnostic survey method employing a proprietary questionnaire consisting of 5 questions regarding the assessment of having tattoos, piercings, and hair in an unnatural colour (e.g. green, blue). In addition, the opinion of patients on the possession of colourful medical uniforms by the nursing staff was examined. The researched issues were selected due to the high popularity of particular body adornment methods in society [7-9]. The record contained 5 questions concerning sex, age, place of residence, education, and the number of hospitalisations. The research complies with the requirements of the Declaration of Helsinki and the recommendations of the ICMJE (International Committee of Medical Journal Editors). In addition, consent for conducting the research was obtained from the heads of the units where the research was conducted.

The criterion for the selection of respondents was at least one hospitalisation in a hospital ward. The study was conducted among 1267 patients, after verification of the selection criterion and rejection of incomplete questionnaires, 1109 questionnaires were subjected to further statistical analysis. Each of the respondents gave informed consent to conduct the study, was informed about the purpose of the study, and received information about the possibility of withdrawing from participation in the study at any time. The material for the study was collected between March and June 2022.

The basic test used in statistical analyses was the chi-square test, showing the independence of variables. It was used primarily in questions based on nominal scales. To determine the strength of the connection, a coefficient based on the Phi and Kramer's V tests was used. When the variables were ordinal, Kendall's Tau-b coefficients were used (in the case of tables with the same number of rows and columns) and Kendall's Tau-c (in the case of tables without the same number of rows and columns). In the study group, during the analysis with the chi-square test, the number of individual results could not correspond to less than 5 respondents' answers. Each of the dependencies was also calculated on the basis of the Monte Carlo method. The measures of the strength of the relationship range from zero to one, with a higher value

of the coefficient indicating a stronger relationship. The analysis was performed using the IBM SPSS 26.0 package containing the Exact Tests module. All results are statistically significant while $p \leq 0.05$.

RESULTS

The respondents were dominated by people aged 41-50 years, which constituted 20.9% of the respondents. The modal age was 50 years, while the average age was 39 years. The study group was dominated by women, who constituted 58.3% of people. Of the respondents, 59.2% lived in a city. The study group was dominated by people with higher education (67.0%). The average number of hospitalisations of the respondents was 4, while the modal was 2 hospitalisations.

Most patients did not mind the nursing staff having tattoos in a visible place (64.8%), but 26.3% of the respondents were of the opposite opinion. Nurses with piercings were accepted by 55.8% of the respondents, while 38.1% of the respondents were against having this body decoration. 33.8% of the respondents were against nursing staff having hair in an unnatural colour, while 59.3% allowed such a possibility (Table 1).

Older age of respondents was associated with greater opposition to nursing staff having visible tattoos. The dependence is statistically significant ($p < 0.001$) and is characterised by a clear strength of the connection. At the same time, a larger percentage of younger respondents accepted having tattoos (Table 2).

Older age groups of respondents were more opposed to nurses having piercings. The correlation coefficient is statistically significant ($p < 0.001$) and has a moderate strength of association (Table 3).

Respondents over 50 years of age were more opposed to the nursing staff having hair in an unnatural colour, for example green or blue. The coefficient is statistically significant ($p < 0.001$) and has a clear strength of association. In addition, in the younger

Table 1. Opinion of hospitalised patients on the non-standard appearance of the nursing staff

Non-standard appearance of nursing staff		Visible tattoos	Piercing in specific places of the body	Unnaturally coloured hair
I am against	<i>n</i>	292	423	375
	%	26.3	38.1	33.8
I have no opinion	<i>n</i>	99	67	77
	%	8.9	6.1	6.9
I don't mind	<i>n</i>	718	619	657
	%	64.8	55.8	59.3
Total	<i>n</i>	1109	1109	1109
	%	100	100	100

n – the number of people who gave an answer

Table 2. The age of the surveyed patients and their opinion on nursing staff having tattoos in a visible place

Visible tattoos		Age					
		Under 21 years old	21-30 years old	31-40 years old	41-50 years old	51-60 years old	Over 60 years old
I am against	<i>n</i>	9	16	31	52	85	99
	%	6.1	8.6	14.3	22.4	48.3	66.0
I have no opinion	<i>n</i>	11	16	22	23	14	13
	%	7.5	8.6	10.1	9.9	8.0	8.7
I don't mind	<i>n</i>	127	155	164	157	77	38
	%	86.4	82.9	75.6	67.7	43.8	25.3

Tau-c Kendall: Estimate = -0.361, SE = 0.023, T = -15.878, $p < 0.001$, $p_{MK} < 0.001$

n – the number of people who gave an answer, *p*, *p* Monte Carlo – statistically significant, p_{MK} – *p* Monte Carlo

Table 3. Age of hospitalised patients and their opinion regarding piercings in specific places of the body by the nursing staff

Piercing in specific places of the body		Age					
		Under 21 years old	21-30 years old	31-40 years old	41-50 years old	51-60 years old	Over 60 years old
I am against	<i>n</i>	12	23	56	82	118	132
	%	8.2	12.3	25.8	35.3	67.0	88.0
I have no opinion	<i>n</i>	16	14	10	11	10	6
	%	10.9	7.5	4.6	4.7	5.7	4.0
I don't mind	<i>n</i>	119	150	151	139	48	12
	%	81.0	80.2	69.6	59.9	27.3	8.0
Total	<i>n</i>	147	187	217	232	176	150
	%	100.0	100.0	100.0	100.0	100.0	100.0

Tau-c Kendall: Estimate = -0.448, SE = 0.020, T = -21.907, $p < 0.001$, $p_{MK} < 0.001$

n – the number of people who gave an answer, *p*, *p* Monte Carlo – statistically significant, p_{MK} – *p* Monte Carlo

Table 4. Age of hospitalised patients and their opinions on nursing staff having unnatural coloured hair

Unnatural coloured hair		Age					
		Under 21 years old	21-30 years old	31-40 years old	41-50 years old	51-60 years old	Over 60 years old
I am against	<i>n</i>	10	29	57	66	104	109
	%	6.8	15.5	26.3	28.4	59.1	72.7
I have no opinion	<i>n</i>	20	14	10	11	12	10
	%	13.6	7.5	4.6	4.7	6.8	6.7
I don't mind	<i>n</i>	117	144	150	155	60	31
	%	79.6	77.0	69.1	66.8	34.1	20.7
Total	<i>n</i>	147	187	217	232	176	150
	%	100.0	100.0	100.0	100.0	100.0	100.0

Tau-c Kendall: Estimate = -0.357, SE = 0.022, T = -15.962, $p < 0.001$, $p_{MK} < 0.001$

n – the number of people who gave an answer, *p*, *p* Monte Carlo – statistically significant, p_{MK} – *p* Monte Carlo

groups of respondents, a greater acceptance of this form of body adornment was observed (Table 4).

Women compared to men more often expressed their acceptance of having piercings in specific places and hair in unnatural colours. The relationship between the variables is statistically significant and amounts to $p < 0.001$ in each case (Table 5).

Piercings in specific places of the body and hair of an unnatural colour among nurses were more often accepted by urban respondents than by rural

respondents. The correlation coefficient is statistically significant ($p < 0.001$) and has a slight strength of association (Table 6).

Most of the respondents believed that nursing staff should be able to wear medical clothing in any colour of their choice (81%), 12% of respondents were of the opposite opinion, believing that nursing staff should use top-down use of subdued colours (e.g. a white blouse, navy blue trousers/skirts), while 7% of respondents had no opinion on this issue (Fig. 1).

Table 5. Gender of hospitalised patients and their opinion regarding nursing staff having piercings in specific places of the body and hair in an unnatural colour

Piercing in specific places of the body		Gender	
		Women	Men
Total	<i>n</i>	647	462
	%	100.0	100.0
I am against	<i>n</i>	199	224
	%	30.8	48.5
I have no opinion	<i>n</i>	30	37
	%	4.6	8.0
I don't mind	<i>n</i>	418	201
	%	64.6	43.5

V Kramer: Estimate = 0.210, chi-square = 48.778, df = 2, $p < 0.001$, $p_{MK} < 0.001$

Unnatural coloured hair		Gender	
		Women	Men
Total	<i>n</i>	178	197
	%	27.5	42.6
I am against	<i>n</i>	42	35
	%	6.5	7.6
I have no opinion	<i>n</i>	427	230
	%	66.0	49.8

V Kramer: Estimate = 0.166, chi-square = 30.661, df = 2, $p < 0.001$, $p_{MK} < 0.001$

n – the number of people who gave an answer, *p*, *p* Monte Carlo – statistically significant, *pMK* – *p* Monte Carlo

The study did not show the impact of education and the number of hospitalisations so far on the perception of individual forms of body adornment by nurses.

DISCUSSION

The author's results of the analysis show that among the evaluated forms of beautifying the body of nurses, the most frequently accepted by patients was having tattoos (64.8%). 59.3% of respondents accepted nursing staff having unnatural coloured hair. The least accepted by patients was piercing in specific places of the body (55.8%).

Rutkowska *et al.* showed that 65.03% of patients expressed no objection to medical personnel having tattoos [10]. In the study by Paprocka-Lipińska *et al.*, 79% of respondents accepted health care workers with visible tattoos; moreover, 69% of respondents considered this form of body decoration attractive [11]. In the analyses of Brodowska *et al.* from 2018, 73.33% of patients were of the opinion that medical staff should not be prohibited from tattooing their bodies; moreover, 98.3% of them were of the opinion that there is no connection between medical staff having a tattoo and their competence. However, it should be emphasised that opinions change over the years [12].

Table 6. Place of residence of hospitalised patients and their opinions regarding nursing staff having piercings in specific places of the body and hair of an unnatural colour

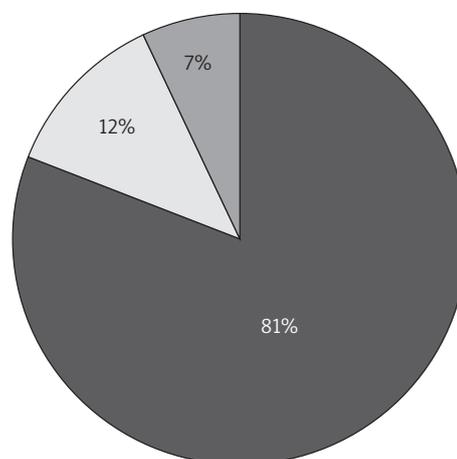
Piercing in specific places of the body		Place of residence	
		City	Village
Total	<i>n</i>	656	453
	%	100.0	100.0
I am against	<i>n</i>	211	212
	%	32.2	46.8
I have no opinion	<i>n</i>	51	16
	%	7.8	3.5
I don't mind	<i>n</i>	394	225
	%	60.1	49.7

V Kramer: Estimate = 0.159, chi-square = 28.213, df = 2, $p < 0.001$, $p_{MK} < 0.001$

Unnatural coloured hair		Place of residence	
		City	Village
Total	<i>n</i>	183	192
	%	27.9	42.4
I am against	<i>n</i>	54	23
	%	8.2	5.1
I have no opinion	<i>n</i>	419	238
	%	63.9	52.5

V Kramer: Estimate = 0.154, chi-square = 26.283, df = 2, $p < 0.001$, $p_{MK} < 0.001$

n – the number of people who gave an answer, *p*, *p* Monte Carlo – statistically significant, *pMK* – *p* Monte Carlo



- Nursing staff should be able to wear medical clothing of any colour chosen by them
- Nursing staff should be forced to use subdued colours (e.g. white blouse, navy blue trousers/skirts)
- I have no opinion

Figure 1. Opinions of hospitalised patients on the colours of nursing uniforms

Analysis of the study by Crevar *et al.* shows that 67% of patients do not care at all whether the nursing staff who care for them have a tattoo, and 89% expressed the opinion that they feel just as safe when they are

cared for by the nursing staff who have tattoos [13]. An equally high percentage of people who feel safe when cared for by nursing staff with tattoos was found in the study of Nease *et al.*, in which such an approach was presented by 81% of the respondents [14].

The study by Rutkowska *et al.* shows that 53.59% of the respondents expressed acceptance of having piercings in parts of the body other than the ears [10]. Miroński *et al.* observed that most recipients of all kinds of services did not perceive people with piercings negatively (71.3%), while 78.7% of respondents disagreed with the statement that they would feel uncomfortable receiving services from people with visible body modification. The same study also shows that 56.4% of respondents held the position that it is unfair for employers not to want to hire people because they have various forms of body beautification [15]. According to Seperović's research, 75% of patients did not consider the use of piercing by medical personnel to be inappropriate, while 90.8% of respondents did not see any contraindications for people with piercings to work in the healthcare sector [16]. A study by Cohen *et al.* on patients' attitudes towards doctors' piercings shows that patients did not see any difference in the assessment of their competence, professionalism, and reliability in relation to their body decorations [17].

Among the examined aspects of non-standard appearance, the least accepted by respondents was having unnatural coloured hair, which did not bother 59.3% of respondents. The obtained results may be related to the standard requirements for an employee's appearance, which specify that dyed hair should not be characterised by neon or contrasting colours [18]. However, a study by Karl *et al.* showed that the unconventional hair colour of employees negatively affects their perception by customers of various industries [19].

In the author's study, people in older age groups more often did not accept nursing staff having tattoos in a visible place, piercings in specific places of the body, and hair in a non-standard/unnatural colour ($p < 0.001$). Also, in Brodowska's study, acceptance of tattoos was more common in young people, while in older groups of respondents this indicator decreased [12]. Rutkowska *et al.* showed that body decorations are generally less accepted by older people [10]. However, Kowalewska *et al.* noticed that in younger age groups, having tattoos is most often perceived as a form of decoration (54%), while older people considered them to be an uncritical following of fashion (47%) [20]. In turn, studies by Sotgiu *et al.* and Roehrens *et al.* showed that older patients significantly more often prefer the classic appearance of doctors than younger ones, who were more likely to follow current fashion and trends [21, 22]. The reason for this situation may be the fact that older genera-

tions, over time, become more and more conservative and reluctant to change [23].

Gender also influenced the perception of various forms of body decoration. Men were significantly more likely ($p < 0.001$) to be against nursing staff having piercings in specific places on the body and having hair in a non-standard/unnatural colour. Similar results were also achieved by Baumann *et al.*, who noticed that women have a greater degree of tolerance towards body decorations than men [24]. A greater degree of social acceptance of women towards having decorations ($p = 0.01$) is also presented in the study by Blázquez Abellán *et al.* [25]. In turn, Brodowska *et al.* noticed that men, compared to women, more often believed that the quality of work of people with tattoos may be worse [12]. The reason for this relationship may be the fact that people with body decorations are more tolerant of body modifications compared to people who do not have them [11]. The analyses of Blázquez Abellán *et al.* show that women are more likely to decide on various types of forms of body beautification [25]. It is also worth emphasising that having piercings (e.g. on the face) by women is more accepted in society than having piercings by men [26].

In the author's study, urban residents were significantly more likely to accept piercings in specific places on the body and unnaturally coloured hair worn by nurses compared to rural residents. Kowalewska *et al.* showed that urban residents perceive body decorations mainly as a way of expressing themselves (42%), while people living in rural areas evaluate them negatively, and equally 26% of respondents consider them as self-disfigurement, a desire to draw attention to attention and whimsy [20]. This relationship may be influenced by the fact that urban residents are more liberal compared to rural residents [27].

The last aspect examined was patients' opinion on the colours of nursing uniforms. The dominant opinion among respondents was that nursing staff should have the freedom to choose the colours of medical clothing (81%). Research by Sanna *et al.* shows that the white nursing uniform is not preferred by patients or by the nurses themselves, who are convinced that wearing colourful uniforms is perceived as equally professional as wearing white coats [28]. In the study by Küçük *et al.*, 54% of respondents preferred different colours of nursing uniforms, 31% were in favour of a white uniform, while 15% were of the opinion that nursing staff should wear civilian clothes [29]. The colours of the uniforms also depend on the place of work and the age of the patients. It has been proven that children may be afraid of nursing staff dressed in white uniforms. As shown by Albert *et al.*, children associate positive emotions with the colours blue, pink, and yellow (all $p \leq 0.002$) [30]. Koralewicz emphasised, however, that despite the current free-

dom in medical staff uniforms, standardised colours of nursing uniforms used in a given ward would help patients distinguish this professional group among other members of the therapeutic team [31].

CONCLUSIONS

Patients' attitudes towards visible body modifications used by nursing staff are individual.

Older people, men, and rural residents are less likely to accept the use of forms of body decoration among nursing staff compared to younger people, women, and urban residents.

The freedom to choose the colour of uniform by nursing staff is widely accepted among patients.

Due to the lack of acceptance by a large percentage of patients of the non-standard appearance of nursing staff, the management staff of medical entities should clearly define the acceptable standards of body decoration by employees of medical entities, including nursing staff.

Before deciding on body decoration, nursing staff should consider whether the decoration they use will have a negative impact on the patient's perception of him or her as a less professional employee.

Disclosure

The authors declare no conflict of interest.

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