ORIGINAL ARTICLE

Differences in newborn umbilical cord care

Sanja Kanisek[1], Nada Prlić[2], Ivana Barać[2], Lorna Dubac Nemet[2]

[1]Community-Health Nursing Services, Community Health Centre Osijek, [2]University Study of Nursing, Faculty of Medicine, J. J. Strossmayer University of Osijek; Osijek, Croatia

ABSTRACT

Aim To investigate the frequency of different cord care practices as well recommendations to parents on cord care, along with the need to identify as well as reach the consensus on best cord care practices and other procedures in newborn care among health workers.

Methods The study was conducted among 110 health care workers at the nursery departments in two general hospitals, six community-health nursing services and 16 pediatric practices in Eastern Croatia. The questionnaire created for this research has evaluated different cord care practices and recommendations to parents, a need to identify, as well as reach the consensus on best practices in cord care and other procedures in newborn care.

Results Statistically significant differences have been found among respondent groups in three "dry" cord practices (p=0.000, p=0.002, and p=0.004, respectively) and three "wet" cord practices (p=0.000, p=0.001, and p=0.000, respectively). Significant differences were determined in three types of recommendations to parents about the care of "dry" cord (p=0.000, p=0.000, and p=0.002, respectively) and two recommendations for "wet" cord (p =0.000, p=0.000, respectively). The majority of respondents stressed the need for publishing guidelines on cord care, 104 (94.5%), and for other procedures in newborn care, 108 (98.2%). More than a half of respondents, 63 (57.3%), declared the need to reach a national agreement on guidelines for umbilical cord care.

Conclusion Healthcare workers employ, as well as recommend, different umbilical cord care practices. It is necessary to prepare and reach a national agreement on written guidelines for umbilical cord care as well as for other procedures in newborn care.

Key words: guidelines, health care workers

Corresponding author:
Sanja Kanisek
Community-Health Nursing Services,
Community Health Centre Osijek
Park kralja P. Krešimira IV/6, 31000
Osijek, Croatia
Phone: +385 31 399 628;
Fax: +385 31 225 340;
E-mail: sanja.kanisek@gmail.com

Original submission:
05 November 2014;
Accepted:
02 February 2015.

INTRODUCTION

Umbilical cord stump and wound in newborns represent the point of entrance and development of systemic infections (1). This infection risk was the most frequent cause of changes in trends of newborn umbilical cord care practices over many years (2). The diversity in newborn cord care practices (3,4), suggests uncertainty about the most efficient care practice and was therefore the subject of many studies whose purpose was to demonstrate the most efficient newborn cord care regime (3). Based on the findings of many studies mostly from the developed countries, the World Health Organization (WHO) has published general guidelines on newborn umbilical cord care, recommending further, larger and longer-term studies (3). The principle of the WHO guideline is to keep the cord stump dry and clean; to apply antimicrobial agents in a hospital setting and in underdeveloped countries (3,5). Further studies acknowledge that there is not enough evidence to support the use of antimicrobial agents over keeping the cord stump dry and clean in developed countries, with the exception of preterm babies and newborns in Intensive Care Units (6).

Croatian authors (1,7) recommend application of antimicrobial agents (70% isopropyl alcohol) in cord care, in contrast to WHO Guidelines which declared them not efficient enough in reduction of bacterial colonization of umbilical cord, as well as prolonging the cord stump healing (3).

Differences in conducting cord care practices, which are often present within the same or different institutions (4,8,9), create the feeling of insecurity among healthcare workers (9). Healthcare workers' inconsistence in conducting cord care practices as well as giving recommendations on cord care in a home setting (4,9,10), increases the already present maternal fear during the period of stump healing (9,10).

Another important aspect, although not explicit, is the use of resources, whether it is the case of multiple visits of community-health nurse (11) or the amount of medical supplies used (11,12). Parents are additionally facing confusing diversity of recommendations on newborn cord care practices produced by healthcare workers such as midwives, nurses and pediatricians, based on beliefs rather than on scientific research findings (13).

It is questionable whether there are any written guidelines on nursing interventions in newborn health care during stump healing phase, such as umbilical cord care, maintaining personal hygiene of a newborn or umbilical granuloma treatment with silver nitrate, in Croatian healthcare institutions. Moreover, it is arguable, whether the application methods of the mentioned procedures are evidence-based or simply relicts from the past, based on tradition, deeply rooted in the practice.

The objectives of this study were to investigate the frequency of different cord care practices among healthcare workers, as well as their recommendations to parents on cord care during its healing related to healthcare worker's place of work, along with the need to identify as well as reach the consensus on best practices in cord care and other procedures in newborn care, (umbilical granuloma treatment with silver nitrate, personal hygiene).

EXAMINEES AND METHODS

Prior to the beginning of this study, the consent was issued by hospital managements and the Ethical Committee of the University Hospital Centre Osijek, General County Hospital Našice, Community Health Centers in Osijek, Našice, Valpovo, Donji iholjac, Beli Manastir and Đakovo.

Participation in this study was completely voluntary and anonymous, and respondents were given both written and oral information on research. Written consent was obtained from all respondents.

The study was conducted in April 2013 among healthcare workers involved in umbilical cord care in Eastern Croatia, Osijek-Baranja County. The study was conducted at the University Hospital Centre Osijek, Newborns Department, General County Hospital Našice, Newborns Department, community-health nursing services and pediatric primary care practices of the Community Health Centers in Osijek, Našice, Valpovo, Donji Miholjac, Beli Manastir and Đakovo.

Anonymous questionnaire created for the purpose of this research was used as a research instrument, previously pretested and piloted on 15 health workers of different workplaces (hospital, community-health nursing services, pediatric primary care practice) and qualifications (nurse, bachelor of nursing, medical doctor). The questionnaire comprises socio-demographic data (age, gender, profession, workplace, years of service with current em-

ployer), as well as questions on conduction of cord care practices and recommendations to parents on cord care during its healing ("dry" umbilicus – dry cord stump; "wet" umbilicus – wet cord stump, wet wound), questions on availability of written guidelines and instructions on umbilical cord care for parents, questions on policies and rationales on maintaining hygiene in newborns during stump healing, questions on the necessity of creating guidelines on newborn cord care practices, reasons and levels, as well as questions on need to create and reach a mutual consent on other procedures in newborn care. Multiple response questions were introduced when questioning the necessity of creating guidelines on cord care practices.

Respondents were asked to hand in a copy of written guidelines on umbilical cord practices and recommendations for parents, if available. There was a total of 35 open-ended and closed-ended questions. Before data processing, the respondents were divided into three groups according to their workplace (hospitals, community-health nursing services and pediatric primary care practices). Categorical data were presented in absolute and relative frequencies. Numerical data were described by arithmetic average and standard deviation. Differences between categorical variables were tested by χ^2 test and Fischer's Exact test. Distribution of numerical variables was tested by Kolmogorov-Smirnov test. The level of significance was set at α=0.05.

RESULTS

Out of 110 respondents who have participated in this study there were 22 (20%) hospital employees, 55 (50%) community-health nursing service employees and 33 (30%) pediatric primary care practice employees. In relation to their qualifications, there were 35 (32%) nurses, 57 (52%) bachelors of nursing and 18 (16%) medical doctors.

The majority of the respondents were females, 108 (98.2%). The average age of the respondent was 46.46 years, ranging from 20.0 to 64.0 years (SD; 12.295). The average number of years of service with current employer was 15.93 years, ranging from 1.0 to 45.0 years, (SD; 12.786).

Healthcare workers stated that they conducted a total of 11 "dry" cord care practices, whereby statistically significant differences were found according to workplace in three care practices: alcohol-free disinfectant, antibiotic powder and sterile gauze (p=0.000); alcohol-free disinfectant and sterile gauze (p=0.002) and antibiotic powder and sterile gauze (p=0.004).

Healthcare workers stated that they conducted a total of six "wet" cord care practices, whereby statistically significant differences were also found according to workplace in three care practices: alcohol-free disinfectant, antibiotic powder and sterile gauze (p=0.000); 70% isopropyl alcohol, antibiotic powder and sterile gauze (p=0.001) and 3% hydrogen peroxide, saline solution, antibiotic powder and sterile gauze (p=0.000) (Table 1).

Healthcare workers stated a total of nine types of recommendations for parents on "dry" umbilical cord care in a domestic setting. Statistically significant differences among the respondents of different professions were found in three recommended cord care practices: antibiotic

Table 1. "Dry" (cord stump) and "wet" (cord stump/wound) umbilical cord care practices used by healthcare workers

UC care practices	UC healing phases	Number (%) of respondents				p
		H (n=22)	C-HNS (n=55)	PPCP (n=33)	Total (n=110)	
Alcohol-free disinfectant, antibiotic powder, gauze	Dry	0	25 (45.6)	6 (18.2)	31 (28.2)	0.000
	Wet	0	27 (49.1)	8 (24.2)	35 (31.8)	0.000
70% isopropyl alcohol, gauze	Dry	5 (22.7)	7 (12.7)	3 (9.1)	15 (13.7)	0.385
	Wet	4 (18.2)	4 (7.3)	2 (6.1)	10 (9.1)	0.150
70% isopropyl alcohol, antibiotic powder, gauze	Dry	0	11 (20.0)	2 (6.0)	13 (11.8)	0.024
	Wet	0	19 (34.5)	4 (12.1)	23 (20.9)	0.001
Alcohol-free disinfectant, gauze	Dry	0	1 (1.8)	7 (21.2)	8 (7.3)	0.002
	Wet	0	0	3 (9.1)	3 (2.7)	0.032
3% hydrogen peroxide, saline solution, antibiotic powder, gauze	Dry	0	0	2 (6.1)	2 (1.8)	0.127
	Wet	18 (81.8)	4 (7.3)	10 (30.3)	32 (29.1)	0.000
3% hydrogen peroxide, antibiotic powder, gauze	Dry	1 (4.5)	0	1 (3.0)	2 (1.8)	0.248
	Wet	0	1 (1.8)	6 (18.2)	7 (6.4)	0.009
Antibiotic powder, gauze		10 (45.6)	8 (14.5)	4 (12.1)	22 (20.0)	0.004
Saline solution, antibiotic powder, gauze		5 (22.7)	1 (1.8)	2 (6.1)	8 (7.3)	0.008
3% hydrogen peroxide, saline solution, gauze	Dry	0	0	3 (9.1)	3 (2.7)	0.008
Saline solution, gauze		0	1 (1.8)	2 (6.1)	3 (2.7)	0.437
Gauze		1 (4.5)	1 (1.8)	1 (3)	3 (2.7)	0.773

UC, umbilical cord; H, hospitals; C-HNS, community-health nursing services; PPCP, pediatric primary care practices

Table 2. Recommendations for parents on "dry"(cord stump) and "wet"(cord stump/wound) newborn cord care practices in a domestic setting

Recommendations on UC care practices in a domestic setting	UC healing phases	Number (%) of respondents				p
		H (n=22)	C-HNS (n=55)	PPCP (n=33)	Total (n=110)	
Alcohol-free disinfectant, antibiotic powder, gauze	Dry	0	18 (32.7)	6 (18.2)	24 (21.8)	0.006
	Wet	0	31 (56.3)	11 (33.3)	42 (38.1)	0.000
Antibiotic powder, gauze	Dry	13 (59.1)	15 (27.3)	2 (6.1)	30 (27.3)	0.000
	Wet	0	4 (7.3)	2 (6.1)	6 (5.5)	0.564
70% isopropyl alcohol, antibiotic powder, gauze	Dry	0	10 (18.2)	4 (12.1)	14 (12.8)	0.090
	Wet	0	15 (27.3)	5 (15.2)	20 (18.2)	0.017
Alcohol-free disinfectant, gauze	Dry	0	1 (1.8)	11 (33.3)	12 (10.9)	0.000
	Wet	0	0	3 (9.1)	3 (2.7)	0.032
70% isopropyl alcohol, gauze	Dry	5 (22.7)	4 (7.3)	2 (6.1)	11 (10.0)	0.114
	Wet	4 (18.2)	4 (7.3)	1 (3.0)	9 (8.2)	0.150
3% hydrogen peroxide, antibiotic powder, gauze	Dry	0	0	5 (15.1)	5 (4.5)	0.002
	Wet	1 (4.5)	1 (1.8)	6 (18.2)	8 (7.3)	0.017
Gauze		0	5 (9.1)	1 (3.0)	6 (5.5)	0.330
Saline solution, antibiotic powder, gauze	Dry	4 (18.2)	1 (1.8)	0	5 (4.5)	0.007
Pure water, drying, gauze		0	1 (1.8)	2 (6.1)	3 (2.7)	0.437
3% hydrogen peroxide, saline solution, antibiotic powder, gauze	Wet	17 (77.3)	0	5 (15.1)	22 (20.0)	0.000

UC, umbilical cord; H,hospitals; C-HNS, community-health nursing services; PPCP, pediatric primary care practices

powder and sterile gauze (p=0.000); alcohol-free-disinfectant and sterile gauze (p=0.000) and 3% hydrogen peroxide, antibiotic powder and sterile gauze (p=0.002). Respondents listed a total of seven types of recommendations for parents on methods of "wet" newborn cord care in a domestic setting. Statistically significant differences among respondents of different professions were found in two recommended cord care practices: alcohol-free disinfectant, antibiotic powder and sterile gauze (p=0.000); and 3% hydrogen peroxide, saline solution, antibiotic powder and sterile gauze (p=0.000) (Table 2).

For the majority of respondents the maintenance of personal hygiene in newborns during the umbilical stump healing time period (with the avoidance of wetting) had reduced the risk of infection, 88 (80.0%). Just17 (15.5%) of them considered that newborn cord care practices had no influence on risk of developing an umbilical cord infection , whereas five respondents (4.5%) were not familiar with it (p=0.870).

As the most frequent method of and/or recommendation on personal hygiene maintenance in newborns during umbilical cord stump healing the healthcare workers highlighted the method of cleaning the baby on the changing mat with avoidance of wetting, 50 (45.5%), whereby statistically significant difference was found among groups (p=0.000) (Table 3).

The availability of written guidelines on newborn umbilical cord care for healthcare workers at healthcare institutional level was acknowledged by only a small number of hospital respondents, 17 (15.5%). The majority of respondents, 89 (80.9%) stated that no written guidelines were available, just a verbal agreement, whereby four respondents (3.6%) were not familiar with the existence of written guidelines at institutional level. Statistically significant difference was found among groups of respondents (p=0.000).

Only a small number of respondents, nine of them (8.2%), confirmed the existence of written recommendations for parents at institutional level. The majority of respondents, 99 (90%), stated the lack of written recommendations for parents, yet confirmed verbal instructions. In contrast, two respondents (1.8%) were not familiar with the existence of such recommendations. In view of that, statistically significant difference was also found among groups of respondents (p=0.000).

Table 3. Methods of and/or healthcare workers' recommendations on personal hygiene maintenance in newborns during umbilical cord stump healing

Methods and/or recommendations	Number (%) of respondents				p
	H (n=22)	C-HNS (n=55)	PPCP (n=33)	Total (n=110)	
While cleaning the baby on a changing mat avoid wetting the UC stump	0	30 (54.5)	20 (60.6)	50 (45.5)	0.000
While washing the baby in a bath tub avoid wetting the UC stump	8 (36.4)	25 (45.5)	11 (33.3)	44 (40.0)	0.605
While washing the baby under running water avoid wetting the UC stump	14 (63.6)	0	1 (3.0)	15 (13.6)	0.000
While washing the baby in a bath tub the UC stump may get wet	0	0	1 (3.0)	1 (0.9)	0.500

UC, umbilical cord; H,hospitals; C-HNS, community-health nursing services; PPCP, pediatric primary care practices

The majority of respondents, 104 (94.5%), agreed that there was a necessity to create written guidelines on newborn umbilical cord care, whereby six of them (5.5%) were of different opinion (p=0.004).

As the most frequent reason for creating written guidelines on newborn umbilical cord care the respondents, 87 (76.4%), reported decrease and/or elimination of parental confusion regarding differences in umbilical cord care practices among healthcare workers of different healthcare institutions, (p=0.668) (Table 4).

Table 4. The reasons for the necessity of creating written guidelines on newborn cord care practices

Reasons	Number (%) of respondents				p
	H (n=22)	C-HNS (n=55)	PPCP (n=33)	Total (n=110)	
It would decrease and/or eliminate parental confusion regarding differences in UC care practices among healthcare workers of different healthcare institutions	16 (72.7)	41 (74.5)	27 (81.8)	84 (76.4)	0.668
It would increase the sense of confidence and job satisfaction of healthcare workers (when I know precisely what to do/ how to do it)	7 (31.8)	33 (60.0)	26 (78.8)	66 (60.0)	0.003
It would decrease and/or eliminate healthcare workers confusion regarding differences in UC care practices	13 (59.1)	27 (49.1)	22 (66.7)	62 (56.4)	0.263
It would reduce the risk of newborn UC stump infection	13 (59.1)	18 (32.7)	18 (54.5)	49 (44.5)	0.042
It would rationalize the resources used during UC stump healing (number of community-health nurse visits, medical supplies for UC care)	6 (27.3)	16 (29.1)	16 (48.5)	38 (34.5)	0.130

UC, umbilical cord; H,hospitals; C-HNS, community-health nursing services; PPCP, pediatric primary care practices

More than half of the respondents, 63 (57.3%), declared that the above-mentioned guidelines should be coordinated at the national level, (p=0.000) (Table 5).

Table 5. The necessary level of coordination concerning the written guidelines on newborn umbilical cord care

Level	Number (%) of respondents				p
	H (n=22)	C-HNS (n=55)	PPCP (n=33)	Total (n=110)	
National level	3 (13.6)	31 (56.4)	29 (87.9)	63 (57.3)	0.000
Local level (H with satellite C-HNS and PPCP)	18 (81.8)	24 (43.6)	3 (9.1)	45 (40.9)	0.000
Level of particular healthcare institution	1 (4.5)	0	1 (3.0)	2 (1.8)	0.248

H,hospitals; C-HNS, community-health nursing services; PPCP, pediatric primary care practices

The majority of respondents, 108 of them (98.2%), declared that there was a necessity of creating and coordinating the guidelines for other newborn care practices (p=0.718).

DISCUSSION

The limitation of the study is that it was done only in one area of the Republic of Croatia. However, this kind of research in this area of nursing practice has no one tested so far and this paper is a good indicator of diversity among health professionals involved in the care of newborns' navel. Healthcare workers involved in conducting umbilical cord care practices in Osijek-Baranja County, employ and recommend more different newborn cord care practices, depending on the healing phase. Recommendations to parents on cord care practices are not in line with the WHO guidelines on umbilical cord care in a non-hospital setting, which recommend keeping the cord stump/wound dry and clean, without application of any topical agents (3,5).

The majority of our respondents conduct and/or recommend maintaining of newborn personal hygiene without wetting the umbilical cord stump/wound because they consider it would reduce risk of cord stump/wound infection, which is not in line with the research results that contradict that point of view (5, 13-16).

The availability of written guidelines for healthcare workers on newborn umbilical cord care at the institutional level is unanimously confirmed only by a small number of respondents coming from one and the same hospital, by enclosing a copy of their written guidelines. The results are similar to the research conducted in Scotland where the larger hospital departments share a tendency of having written guidelines (9). Ireland et al. stress that the non-existence of guidelines for above-mentioned practices is a disappointing fact in the age of evidence-based practice (9).

The research results show that almost half of the mothers after being discharged from the hospital are not able to recollect on verbal instructions on umbilical cord care practices in a domestic setting, i.e. only a small number of mothers claim that they have never got the aforementioned recommendations (10). The availability of written recommendations for parents on umbilical cord care in a domestic setting is confirmed by only a

small number of respondents in this research, i.e. respondents coming from one pediatric primary care practice and only a half of the employees of the above mentioned hospital. However, the availability of written recommendations for parents at the hospital level is disputable for many reasons: aside from the fact that the copy of the recommendations was not enclosed, the question remains how it is possible that more than half of those respondents had no knowledge of the existence of the aforementioned recommendations. The listed results are the same as the ones obtained in a research conducted in Scotland, in which also a significant number of respondents from the same department claim existence/non-existence of written recommendations (9).

As the most frequent reason for creating written guidelines on newborn cord care practices, the respondents highlighted the decrease and/or elimination of parental confusion regarding differences in umbilical cord care practices among healthcare workers. The obtained results confirm the research results of Ford and Ritchie, who stress the fact that different recommendations on cord care practices presented by healthcare workers impose an additional source of parental concern (10).

The majority of respondents in this research agree that there is a necessity for creating written guidelines on umbilical cord care and other newborn care practices (umbilical granuloma treatment with silver nitrate, methods and frequency of bathing, as well as the use of personal hygiene products), whereby more than a half of respondents believe that guidelines on umbilical cord care should be coordinated at the national level, which is in accordance with the research conducted in Scotland (9).

With the availability of evidence-based clinical guidelines providing specific recommendations for nursing practice and consequently – multiple benefits for patient and healthcare workers, it is to be expected that nursing based on experience, tradition or autonomy of authority is far behind us. However, the presented research results show that our nursing practice still lives in the past. Among healthcare workers involved in conducting umbilical cord care practices in Osijek-Baranja County there are statistically significant differences in methods of cord care conduction and recommendations to parents on cord care practices during stump/wound healing, in relation to the workplace (hospitals, community-health nursing service, pediatric primary care practices). The results emphasize the necessity of creating written guidelines on umbilical cord care and other newborn care practices, whereby the guidelines on umbilical cord care must be coordinated at the national level.

FUNDING

No specific funding was received for this study.

TRANSPARENCY DECLARATION

Competing interests: None to declare.

REFERENCES

1. Mardešić D. Pedijatrija. Zagreb: Školskaknjiga, 2000.
2. McConell TP, Lee CW, Couillard M, Sherrill WW. Trends in umbilical cord care: scientific evidence for practice. Newborn Infant Nurs Rev 2004; 4:211-22.
3. World Health Organization. Care of the umbilical cord: a review of the evidence. https://apps.who.int/rht/documents/MSM98-4/MSM-98-4.htm (07 April 2013).
4. Block SL. "Stumped" by the newborn umbilical cord. Pediatr Ann 2012; 41:400-3.
5. World Health Organization Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. http://www.who.int/maternal_child_adolescent/documents/924159084x/en/ (07April 2013)
6. Zupan J, Garner P, Omari AAA. Topical umbilical cord care at birth. Cochrane Database Syst Rev 2004; 3:CD001057.
7. Malčić I, Ilić R. Pedijatrija sa zdravstvenom njegom. Zagreb: Školska knjiga, 2008.
8. Guala A, Guarino R, Zaffaroni M, Martano C, Fabris C, Pastore G, Bona G, Neonatal Piedmont Group. The impact of national and international guidelines on newborn care in the nurseries of Piedmont and Aosta Valley, Italy. BMC Pediatr 2005; 5:45.
9. Ireland J, Rennie AM, Hundley V, Fitzmaurice A, Graham W. Cord-care practice in Scotland. Midwifery 2000; 16:237-45.
10. Ford LA, Ritchie JA. Maternal perceptions of newborn umbilical cord treatmens and healing. JOGNN 1999; 28:501-6.
11. Mugford M, Somchiwong M, Waterhouse IL. Treatment of umbilical cords: a randomised trial to assess the effect of treatment methods on the work of midwives. Midwifery 1986; 2:177-86.
12. Mahrous ES, Darwish MM, Dabash SA, Marie I, Abdelwahab SF. Topical application of human milk reduces umbilical cord separation time and bacterial colonization compared to ethanol in newborns. Transl Biomed 2012; 3:1.

13. Blume-Peytavi U, Hauser M, Stamatas GN, Pathirana D, Bartels NG. Skin care practices for newborns and infants: review of the clinical evidence for best practice. Pediatr Dermatol 2012; 29:1-14.
14. Bryanton J, Walsh D, Barrett M, Gaudet D. Tub bathing versus traditional sponge bathing for the newborn. JOGNN 2004; 33:704-12.
15. Henningsson A, Nystrom B, Tunell R. Bathing or washing after birth? Lancet 1981; 2:1401-3.
16. Hylen AM, Karlsson E, Svanberg L, Walder M. Hygiene for the newborn: To bath or to wash? J Hyg 1983; 91:529-34.

Razlike u njezi pupka novorođenčadi

Sanja Kanisek [1], Nada Prlić[2], Ivana Barać[2], Lorna Dubac Nemet[2]

[1]Patronažna služba, Dom zdravlja Osijek, [2]Studij sestrinstva, Medicinski fakultet, Sveučilište Josipa Jurja Strossmayera u Osijeku; Osijek, Hrvatska

SAŽETAK

Cilj Ispitati pojavnost različitih načina provedbe i preporuka o njezi pupka te potrebu oblikovanja i usuglašavanja smjernica o njezi pupka i drugih postupaka u njezi novorođenčadi.

Metode U istraživanju je sudjelovalo 110 zdravstvenih djelatnika na odjelima za novorođenčad u dvije opće bolnice, 6 patronažnih službi i 16 pedijatrijskih ordinacija u istočnoj Hrvatskoj. Upitnikom koji je kreiran za potrebe ovog istraživanja ispitivana je različitost načina provedbe i preporuka roditeljima o njezi pupka, te potreba oblikovanja i usuglašavanja smjernica o njezi pupka i drugih postupaka u njezi novorođenčadi.

Rezultati Utvrđene su statistički značajne razlike među skupinama ispitanika u tri načina njege „suhog“ (p=0.000, p=0.002 i p=0.004) i tri načina njege „vlažnog“ pupka (p=0.000, p=0.001 i p=0.000). Također su utvrđene statistički značajne razlike u tri vrste preporuke roditeljima o njezi „suhog“ (p=0.000, p=0.000, i p=0.002) i dvije vrste preporuke o načinu njege „vlažnog“ pupka (p=0.000, p=0.000). Većina ispitanika, 104 (94.5%), suglasna je u potrebi oblikovanja pisanih smjernica o njezi pupka, kao i drugih postupaka u njezi novorođenčadi, 108 (98.2%). Više od polovice ispitanika, 63 (57.3%), izjasnilo se kako je smjernice o njezi pupka potrebno usuglasiti na nacionalnoj razini.

Zaključak Zdravstveni djelatnici u istočnoj Hrvatskoj na različite načine provode i preporučuju provedbu njege pupka novorođenčadi. Potrebno je oblikovati i usuglasiti smjernice o njezi pupka na nacionalnoj razini, kao i smjernice za druge postupke u njezi novorođenčadi.

Ključne riječi: smjernice, zdravstveni djelatnici