

VALIDATION PROCESSES OF INTERVENTIONS FOR THE NURSING DIAGNOSIS – RISK FOR INFECTION (CODE 00004) IN CLINICAL PRACTICE IN CZECH AND SLOVAK REPUBLICS

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Kega project 022UKF-4/2020 entitled Implementation of Nursing Interventions into Multimedia Technologies in Nursing Education.

Abstract: The purpose of the study was to determine which NANDA nursing diagnosis are made and which related NIC nursing interventions are carried out most frequently by clinical nursing experts. Methods: The Likert Scale and Fehring's Diagnostic Content Validity Model (DCV model) were used for the research. Sample: The total number of all participants of the validation research, i.e. academic nurses/experts, and clinical nurses/experts ($n_c=848$) from 2 countries – SR and CR, consisted of 4 subsamples. A total of 69 items – activities of two interventions for NIC nursing diagnosis: Risk for Infection 00004 were evaluated. Results: We found out that the total set of experts rated all activities/practices of Intervention I and II as significant. Conclusion: The results of the international study provide valid findings for the development of nursing care and curriculum for future professionals.

Keywords: NIC. NANDA. Clinical Nursing. Expert. Validation.

1 Introduction

The presented scientific study builds on the empirical outputs published by the universities in two countries in the field of nursing diagnostics and nursing interventions, i.e. the Faculty of Social Sciences and Health Care, the University of Constantine the Philosopher in Nitra in collaboration with the Faculty of Health Care Studies, the University of West Bohemia, Faculty of Health Care, the University of Presov and their clinical departments. First with the support of the Kega project entitled *Implementation of Nursing Interventions into Multimedia Technologies in Nursing Education* and now with the support of the follow-up Kega project entitled *Implementation of Nursing Interventions into Multimedia Technologies in Nursing Education 2*. The research investigations and implementation of the findings into nursing education are expected to be completed in 2023. The current research communications present findings of the research studies conducted to validate NANDA nursing diagnoses and NIC interventions internationally at academic institutions and clinical workplaces, where future health professionals are being trained. All the involved respondent pools are made up of nursing experts. Universities employ highly erudite academic staff with both professional and especially specialised competence in particular areas of clinical nursing practice, who are competent to create and manage teams of expert nurses to validate a set of nursing diagnoses and nursing interventions. The respondents meet the new research-based expert criteria for validation studies in the clinical setting (Archalous, 2022). Given the breadth and scope of the investigation, we present a validated set of empirically verified nursing interventions for NIC nursing diagnosis: Risk for Infection 00004 in gynaecological, obstetric and neonatal nursing. It is designed for clinical practice and implementation into the training of health professionals, leading to the acquisition of exit competences after completion of undergraduate study programmes (Creason, 2004; Carpenito-Moyet, 2004). With the author's permission, we used in our validation study two nursing interventions included in the Nursing Interventions Classification (NIC; 7th edition) relevant to the nursing diagnosis Risk for Infection 00004 from Taxonomy II NANDA - International (2021-23) entitled *Minimizing Acquisition and Transmission of Infectious Agents* with 36 activities/practices and *Prevention and Early Detection of Infection in a Patient at Risk* with 33 activities/practices. The validation study was conducted during the Covid pandemic and became highly relevant not only in gynaecological and obstetric-neonatal care but in all sections of nursing care as well.

2 Purpose

The purpose of the research was to assign nursing interventions of the Nursing International Classification system (NIC) to the nursing diagnosis evaluated by experts in each field of nursing as the most common, and to validate them in clinical practice. Within the research investigation, experts/clinical nurses and experts/academic nurses defined the most important and most frequently used nursing diagnosis in each nursing discipline, by which means the nursing diagnosis of *The NANDA International: Nursing Diagnoses. Definitions and Classification 2021-2023 Risk for Infection Code 00004, Domain 11, Class 1, defined as susceptibility to infestation and multiplication of pathogenic organisms that may lead to impaired health* was included in the research. To the diagnosis, activities/practices of two interventions of the *Nursing Interventions Classification (NIC) 7th edition, St. Louis: Elsevier: 2018* were assigned. A group of experts constructed a measurement tool with criteria for the selection of a nursing intervention validation expert and with the items (activities/practices of interventions NIC) identified for validation (with respect to NIC copyright). The purpose of the study was to determine which activities/practices of two NIC interventions for the nursing diagnosis Risk for Infection 00004 are rated as significant, i.e. core (acute) and secondary by experts/nurses/midwives from academic and clinical nursing settings in the Slovak Republic (hereinafter as SR) and the Czech Republic (hereinafter as CR). Furthermore, to find out which of them are considered as insignificant, i.e. discarded, in care.

3 Methods

For the validation study, a measurement tool, i.e., an anonymous questionnaire that included the activities/practices related to the chosen nursing diagnosis was used. All 69 activities/practices of the two interventions NIC for the nursing diagnosis Risk for Infection 00004 NANDA-I were validated by the clinical and academic experts/nurses who met the established criteria. The first intervention applying to the nursing diagnosis Risk for Infection 00004, entitled *Intervention I: Infection Control*, defined as - *Minimizing of Acquisition and Transmission of Infectious Agents*, code 6540 (NIC, 7th Edition), was included in the measurement tool and contained a total of 36 items (activities/practices) plus one false item. A second intervention, *Intervention II: Infection Protection*, defined as *Prevention and Early Detection of Infection in the Patient at Risk*, code 6550 (NIC, 7th ed.) was included in the measurement tool with a total of 33 items (activities/practices) plus one false item. The Diagnostic Content Validity Model (DCV) was used for validation. Fehring's method was used for the research utilizing an anonymous questionnaire that included selected interventions NIC (Fehring, 1986; 1994). The total number of all participants in the validation research, i.e. academic nurses/educators/experts and clinical nurses/experts ($n_c=848$) of two countries – SR and CR included four subsets ($n_1=443$, $n_2=342$, $n_3=47$, $n_4=16$). The number of experts/nurses was 785 (92.25%), the number of experts/academic nurses/educators was 63 (7.75%), and the total sample size was 848.

Table 1 Activities/practices of Intervention I Infection Control, code 6540 (items No.1-37; one false item)

1.	Allocate the appropriate square meters per patient, as indicated by Centers for Disease Control and Prevention (CDC) guidelines
2.	Clean the environment appropriately after each patient use
3.	Change patient care equipment per agency protocol
4.	Isolate persons exposed to communicable disease
5.	Place on designated isolation precautions, as appropriate
6.	Maintain isolation techniques, as appropriate
7.	Limit the number of visitors, as appropriate
8.	Teach improved hand washing technique to health care personnel
9.	Instruct patient on appropriate hand washing techniques
10.	Instruct visitors to wash hands on entering and leaving the patient's room
11.	Use antimicrobial soap for hand washing, as appropriate
12.	Wash hands before and after each patient care activity
13.	Institute universal precautions
14.	Wear gloves as mandated by universal precaution policy
15.	Wear scrub clothes or gown when handling infectious material
16.	Wear sterile gloves, as appropriate
17.	Scrub the patient's skin with an antibacterial agent, as appropriate
18.	Shave and prepare the area, as indicated in preparation for invasive procedures and/or surgery
19.	Maintain an optimal aseptic environment during bedside insertion of central lines
20.	Maintain an aseptic environment when changing total parenteral nutrition (TNT) tubing and bottles
21.	Maintain a closed system during invasive haemodynamic monitoring
22.	Change peripheral IV and central line sites and dressings according to current Centers for Disease Control and Prevention guidelines
23.	Ensure aseptic handling of all IV lines
24.	Ensure appropriate wound care technique
25.	Use intermittent catheterisation to reduce the incidence of bladder infection
26.	Teach patient to obtain midstream urine specimens at the first sign of return of symptoms as appropriate
27.	Encourage deep breathing and coughing, as appropriate
28.	Promote appropriate nutritional intake
29.	Encourage fluid intake, as appropriate
30.	Encourage rest
31.	Administer antibiotic therapy, as appropriate
32.	Administer the immunizing agent, as appropriate
33.	Instruct patient to take antibiotics, as prescribed
34.	Teach patient and family about signs and symptoms of infection and when to report them to the health care provider
35.	Teach patient and family members how to avoid infection
36.	Promote safe food preservation and preparation
37.	Serve an ice cream sundae

Table 2 Activities/practices of Intervention II Infection Protection, code 6550 (items No.1-34; one false item)

1.	Monitor for possible systemic and localized signs and symptoms of infection
2.	Monitor vulnerability to infection
3.	Review histories of international and global travels
4.	Monitor absolute granulocyte count, WBC, and differential count
5.	Follow neutropenic precautions, as appropriate
6.	Limit the number of visitors, as appropriate
7.	Avoid close contact between pet animals and immunocompromised hosts
8.	Screen all visitors for transmissible disease
9.	Maintain asepsis for patient at-risk
10.	Maintain isolation techniques, as appropriate
11.	Provide appropriate skin care to oedematous areas
12.	Inspect skin and mucous membranes for redness, extreme warmth, or dryness
13.	Inspect condition of any surgical incision and wound
14.	Obtain cultures, as needed
15.	Promote sufficient nutritional intake
16.	Encourage fluid intake, as appropriate
17.	Encourage rest
18.	Monitor for change in energy level or malaise
19.	Encourage increased mobility and exercise, as appropriate
20.	Encourage deep breathing and coughing, as appropriate
21.	Administer an immunizing agent, as appropriate
22.	Instruct patient to take antibiotics as prescribed
23.	Maintain judicious use of antibiotics
24.	Do not attempt antibiotic treatment for viral infections
25.	Teach the patient and patient's family the differences between viral and bacterial infections
26.	Teach the patient and family about the signs and symptoms of infection and when to report them to the health care provider
27.	Teach patient and family members how to avoid infections
28.	Eliminate fresh fruits, vegetables, and pepper in the diet of patients with neutropenia
29.	Remove fresh flowers and plants from patient areas, as appropriate
30.	Provide private room, as needed
31.	Ensure water safety by instituting hyperchlorination and hyper-heating, as appropriate
32.	Report suspected infections to infection control personnel
33.	Report positive cultures to infection control personnel
34.	Discharge the patient

Out of the total pool of $n_c=848$ experts, the total number of Slovak and Czech experts/clinical nurses was $n_k=785$ (Table 3 Expert/clinical nurse sets in the process of validation of Nursing Diagnosis Risk for Infection 00004 Interventions I, II). The experts of the total set were from universities and teaching hospitals of SR and the CR. Two interventions for the nursing diagnosis (NIC) Risk for Infection 00004 (NANDA-I) containing a total of 71 activities/practices (two were false items) were validated in academic and clinical settings of different nursing disciplines. The experts of the total sample ($n_c=848$) identified all 69 validated items as significant (i.e., core and secondary) in the nursing diagnosis of Risk for Infection 00004, with 49 core (acute) and 20 secondary items. The first intervention with a weighted score – VS 0.91 – 0.71 (37 activities (one false), 33 core, 3 secondary), the second intervention VS 0.89 – 0.53 (34 activities (one false), 16 core, 17 secondary).

Table 3 Expert/clinical nurse sets in the process of validation of Intervention I, II for nursing diagnosis Risk for Infection 00004

Sets	n _k	%
Slovak Republic – nurses n ₁	443	52.24
Czech Republic – nurses n ₂	342	40.33

NIC intervention activities for nursing diagnosis Risk for Infection in obstetrical and neonatal nursing

The aim of the research study was to determine which activities/practices of the two NIC interventions for the nursing diagnosis Risk for Infection 00004 are evaluated by experts/nurses from the academic and clinical obstetric-neonatal nursing care settings in SR and CR as significant, i.e. core (acute) and secondary. Furthermore, to find out which of them they consider as insignificant, i.e. excluded, in obstetric and neonatal nursing. The research was carried out at the Faculty of Social Sciences and Health Care, the University of Constantine the Philosopher in Nitra in collaboration with the Faculty of Health Care Studies, the University of West Bohemia and Faculty of Health Care, the University of Presov with the support of the Kega project entitled *Implementation of Nursing Interventions in Multimedia Technologies in Nursing Education 2*. The research investigations and implementation of their results in nursing education took place from 2020 to 2023.

Methods and Data Set. The Likert Scale and Fehring's Diagnostic Content Validity Model (DCV model) were used for the research. The Likert Scale with a five-point significance rating on a scale of 1 to 5 (1-no significance, 2-low significance, 3-medium significance, 4-high significance, 5-topmost significance). In the next stage of Fehring's Diagnostic Content Validity Model (DCV model), a weighted score for each item/activity was calculated by summing the values assigned to each response and then dividing it by the total number of responses. The values are assigned to the answers as follows: 5=1; 4=0.75; 3=0.5; 2=0.25; 1=0. Responses that achieve a weighted score greater than 0.80 (0.75 according to Fehring, 1986, p. 188; Creason, 2004, p. 124) are considered significant. These activities are referred to as highest priority, core, or acute (major, critical). Activities with a weighted score of less than 0.80 and more than 0.50 are of lower priority. Activities with a weighted score ≤ 0.50 were considered clinically invalid and therefore diagnostically insignificant and suitable for exclusion. A total of four measurement tools in two languages were used for the validation study in obstetric-neonatal nursing. The measurement tool was an anonymous questionnaire consisting of an anamnestic section that contained selection criteria for the nursing intervention validation expert, and an investigation section. The latter one included the activities of the two interventions NIC for Infection Control (defined as *Minimizing Acquisition and Transmission of Infectious Agents*), code 6540, and Infection Protection (defined as *Prevention and Early Detection of Infection in the Patient at Risk*), code 6550 related to the NANDA-I Nursing Diagnosis Risk for Infection 00004. A total of 71 items (code 6540 items No.1-37; code 6550 items No.1-34) were included in the questionnaire (Table 1, Table 2). The selected sample included a total of 79 experts/nurses (n=79) of the academic and clinical obstetric-neonatology nursing and consisted of four subsets (n₁, n₂, n₃, n₄) of which 60 experts were from SR and 19 experts from the CR. Slovak educators were n₁=47 (59.5%); Czech educators n₂=16 (20.3%); Slovak nurses n₃=13 (16.5%); Czech nurses n₄=3 (3.8%). A total of 71 items of the two NIC interventions for the nursing diagnosis Risk for Infection were evaluated, which included 69 activities/practices and two false items.

4 Results

We found out that the Slovak and Czech experts/nurses and experts/educators rated the activities/practices of Intervention I, Infection Control (defined as *Minimizing acquisition and transmission of infectious agents*) as significant, i.e., core and secondary, except for items 25, 26, 27, 30 and 37 (false). They considered these items as insignificant, i.e. discarded. Regarding intervention II, Infection Protection (defined as *Prevention and*

early detection of infection in at-risk patients), they identified all the items as significant, i.e., core, and secondary except No. 3, 4, 8, 17, 19, 20, 22, 28, 29, 30, 31 and 34 (false), which they discarded.

Regarding the first intervention, items No. 22 and 23 (VS=0.98) were identified as the most significant. For the second intervention, the total set of respondents identified item No.13 as the most significant (VS=0.80). There were differences between the subsets of experts in their ratings of the importance of each activity.

Table 6 Validation of the activities of Intervention I named Infection Control, code 6540 in obstetric-neonatal nursing by experts n₁ - n₄

Activity/NIC ₃₇	I1	I2	I3	I4
15	16	17	18	19
I10	I11	I12	I13	I14
115	116	117	118	119
120	121	122	123	124
125	126	127	128	129
130	131	132	133	134
135	136	137		
n ₁ =SR/ Educators	0,59	0,87	0,84	0,93
	0,9	0,89	0,87	0,84
	0,86	0,82	0,89	0,63
	0,8	0,91	0,81	0,83
	0,91	0,92	0,91	0,94
	0,82	0,81	0,81	0,79
	0,73	0,84	0,78	0,88
	0,83	0,71	0,28	
n ₂ =CR/ Educators	0,56	0,92	0,89	0,89
	0,88	0,86	0,64	0,84
	0,8	0,69	0,89	0,69
	0,69	0,75	0,59	0,73
	0,81	0,88	0,83	0,84
	0,66	0,52	0,55	0,61
	0,5	0,67	0,61	0,78
	0,59	0,59	0	0,7
n ₃ =SR/ Nurses	0,88	0,94	0,9	0,94
	0,81	0,92	0,94	0,92
	0,9	0,83	0,96	0,92
	0,48	0,62	0,44	0,42
	0,98	0,52	1	0,98
	0,27	0,31	0,33	0,9
	0,37	0,81	0,77	0,38
	0,85	0,88	0,04	0,81
n ₄ =CR/ Nurses	0,83	0,92	0,58	0,83
	0,83	0,75	0,75	0,75
	0,75	0,83	0,83	0,75
	0,83	0,67	0,75	0,83
	0,83	0,92	0,92	1
	0,92	1	0,83	0,92
	0,83	0,92	1	1
	1	1	1	1
Total (n ₁ , n ₂ , n ₃ , n ₄)	0,88	0,89	0,94	0,84
	0,92	0,81	0,91	0,89
	0,94	0,88	0,83	0,94
	0,84	0,55	0,63	0,5
	0,95	0,95	0,59	0,98
	0,53	0,39	0,44	0,42
	0,53	0,45	0,83	0,81
	0,84	0,88	0,91	0,22

The subset of Slovak educators n₁=47 marked all items as significant, the most significant item being item No. 19 (VS=0.96); the subset of Czech educators n₂=16 marked 35 items as significant, the most significant item being item No. 2 (VS=0.92) and one item as insignificant/excluded – item No. 30 (VS=0.5); the subset of Slovak nurses n₃=72 marked 26 items as significant, the most significant item No. 22 (VS=1) and ten items insignificant/excluded; the subset of Czech nurses n₄=13

marked all items as significant, the most significant items were No. 23, 26, 29, 32, 33, 34, 35 and 36.

The total set of experts rated 29 activities/practices as significant, and eight items (including one false item) as not significant, i.e. discarded. As the most significant items were identified No.22 and 23 of Intervention I: *Replace peripheral IV and central lines, and dressings according to current Centers for Disease Control and Prevention guidelines; Ensure aseptic handling of all IV accesses.*

Table 7 Validation of activities of Intervention II named Infection Protection, code 6550 in obstetric-neonatal nursing by experts $n_1 - n_4$

Activity/NIC ₃₄	II1	II2	II3	II4
II5	II6	II7	II8	II9
II10	II11	II12	II13	II14
II15	II16	II17	II18	II19
II20	II21	II22	II23	II24
II25	II26	II27	II28	II29
II30	II31	II32	II33	II34
n_{1_SR} / Educators	0,91	0,74	0,72	0,71
0,71	0,76	0,64	0,65	0,91
0,9	0,8	0,81	0,9	0,84
0,8	0,84	0,74	0,68	0,68
0,78	0,77	0,84	0,81	0,82
0,78	0,81	0,82	0,66	0,62
0,68	0,55	0,81	0,85	0,45
n_{2_CR} / Educators	0,78	0,64	0,47	0,48
0,47	0,48	0,5	0,42	0,78
0,78	0,66	0,67	0,83	0,75
0,72	0,72	0,61	0,61	0,63
0,61	0,69	0,86	0,89	0,61
0,55	0,7	0,61	0,42	0,38
0,44	0,44	0,73	0,77	0,25
n_{3_SR} / Nurses	1	0,87	0,27	0,29
0,5	0,71	0,5	0,4	0,94
0,96	0,69	0,73	0,52	0,85
0,75	0,44	0,33	0,56	0,37
0,38	0,62	0,38	0,85	0,58
0,77	0,83	0,79	0,37	0,38
0,38	0,37	0,77	0,77	0,08
n_{4_CR} / Nurses	0,83	0,92	0,83	0,67
0,83	0,92	0,75	0,75	0,83
0,92	0,75	0,75	0,92	0,75
0,67	0,92	0,67	0,75	0,92
0,92	0,83	0,58	0,83	0,83
0,58	0,75	0,83	0,92	0,83
0,83	0,75	1	0,83	1
Total (n_1, n_2, n_3, n_4)		0,97	0,88	0,38
0,36	0,56	0,75	0,55	0,47
0,92	0,95	0,7	0,73	0,59
0,83	0,73	0,53	0,39	0,59
0,47	0,48	0,66	0,42	0,84
0,63	0,73	0,81	0,8	0,47
0,47	0,47	0,44	0,81	0,78
0,25				

The subset of Slovak educators $n_1=47$ marked all items as significant, the most significant items were No. 1 and 9 (VS=0.91); the subset of Czech educators $n_2=16$ marked 23 items as significant, the most significant item was No. 23 (VS=0.89) and eleven items as insignificant/excluded (including one false item) No. 3, 4, 5, 6, 7, 8, 28, 29, 30, 31 and 34 (VS=0.5); the subset of Slovak nurses $n_3=72$ marked 19 items as significant, the most significant item No. 1 (VS=1) and 15 items as insignificant/excluded; the subset of Czech nurses $n_4=13$ marked all items as significant, the most significant items were No. 23, 26, 29, 32, 33, 34, 35 and 36.

The total set of experts rated 22 activities/practices as significant and 12 items (including one false) as not significant, i.e.

discarded. The most significant was item No. 1 of Intervention II: *Monitor possible systematic and localized signs of infection.*

6 Discussion

The 2022 Ancira-Moreno study documents activities in relation to the evaluation of nutritional care for the mother and child in primary health care and the impact on their health. The different stages of the research focused on mothers in Mexico and its topic was maternal and child malnutrition. It aimed at the development of a set of indicators to evaluate the quality of nutritional care for the mother and child in primary health care. The research methods were indicators for different stages of life: pregnancy, neonatal and infant ages, toddlerhood and preschool age of the child. A systematic review of the literature on prevention, diagnostics and treatment of various forms of malnutrition, and recommendations included in a series of resolutions was conducted. Based on the evaluation, 22 indicators were constructed for content validation. The research validated and verified 16 indicators to evaluate nutritional care for the mother and child in primary health care (Ancira-Moreno, 2022).

The 2018 study by Purwaningrum covers activities/practices of child feeding and nutrition-related interventions. The aim of the research was to validate a worthy measurement tool for parental child feeding practices (hereafter referred to as PCFP) in low- and middle-income countries. PCFP tools were developed in countries with a high food intake and a high prevalence of childhood obesity. The aim of the validation study was to test the appropriateness, content and construct validity of selected PCFP measurement activities in low- and middle-income countries where both child undernutrition and obesity are prevalent. The expert panel selected subscales and items from the PCFP measurement tool that were well testable in high-income countries to measure both "compulsive" and "addictive" behaviours. Two cross-sectional studies were conducted in two provinces in Indonesia. Research results from the first study were used to refine the subscales for the second phase of the research. Other research included content validity from the perspective of the mothers/respondents participating in the validation study. Content, factorial validity and reliability were tested. Convergent validity was tested with child nutritional status (Purwaningrum, 2018).

Interventions to manage perinatal anxiety were explored by author Victoria Anne Silverwood (2022) and presented in the study entitled Approaches to Managing Perinatal Anxiety. Perinatal Anxiety (PNA) is defined as anxiety occurring during pregnancy and up to 12 months postpartum and is estimated to affect up to 20% of women. The author highlighted a range of risk factors causing anxiety, the difficulty of diagnostics and the current state of perinatal anxiety in women. Furthermore, she pointed out the lack of a research-validated test for the detection and diagnostics of PNA and its erroneous confusion with perinatal depression. Clinical guidelines currently recommend pharmacological and psychological interventions for the management of women with PNA. However, the limited research suggests that other interventions may be effective. This study documents research-validated effective non-pharmacological interventions in primary care of women with PNA. It provides an overview of PNA, evidence of PNA including risk factors, the process of diagnostics and most importantly, effective interventions for the management of perinatal distress (Silverwood, 2022).

A study by Segal (2020) highlights the need for interventions to identify Hepatitis B virus (HBV) infection and infection risk for pregnant women and transmission to the baby. There is a lack of hepatitis B virus (HBV) DNA measurement in low- and middle-income countries, and this situation hinders the identification of pregnant women at risk of perinatal to foetal transmission. This study evaluates the validity of selection of specific interventions/activities in relation to the algorithm of HBeAg-positive women and HBeAg-negative women with an alanine aminotransferase (ALT) ≥ 40 IU/L as a predictor of high HBV

DNA levels. During the study, pregnant women with hepatitis B surface antigen (HBsAg) reactivity were evaluated. They were evaluated by SD BIOLINE HBeAg rapid test and HBV DNA quantification. The validity of the HBeAg and the algorithm to identify HBV DNA >2 thresholds (5.3 and 7.3 log₁₀ IU/ml) were evaluated. The result of the investigation showed that an algorithm intervention using HBeAg and ALT levels could be an effective strategy to identify pregnant women infected with HBV at risk of perinatal transmission in the countries where HBV DNA quantification is not routinely available (Segal, 2020).

The research by Thomas G. Power in 2021 presents the results of an examination of general dietary interventions, practices, habits, and maternal eating styles in relation to infant weight. The study examined the relationships among parenting, eating activities and practices in a sample of 187 low-income Hispanic mothers. Mothers of children in the Head Start programme participated in the larger study, where indicators, such as parenting, feeding styles, practices, and dietary interventions were assessed by means of questionnaires. Results identified numerous associations between general dimensions of parenting and specific feeding practices, i.e., maternal upbringing was positively associated with healthy eating guidance and responsiveness to feeding modifications; inconsistency was positively associated with weight restriction and promotion of overconsumption; adherence to discipline was positively associated with monitoring, healthy eating guidance, and responsiveness to feeding; and family organization was positively associated with monitoring and healthy eating guidance. General parenting styles were related to feeding practices, with authoritative mothers showing the highest level of healthy eating advice but at the same time the lowest level of monitoring. There was no significant association between mothers' general parenting style and mothers' eating style. The implications of these findings for the prevention of childhood obesity are being considered (Power, 2021). Comparative analyses of the most appropriate formulas for developing optimal child nutrition practices were presented in a study by Stephen Kofi Anin et al. in 2022. These were related to public child health, malnutrition, and epidemiological interventions in nutrition (Anin et al., 2022).

7 Conclusion

The results of international studies provide new knowledge for the development of nursing clinical practice in obstetric-neonatal nursing and allow comparison of nursing interventions and their activities between Czech-Slovak and international validation studies. The current ones strengthen the implementation of the results of research investigations into study programmes and into the development of curricula for future nurses and midwives, consequently expanding the possibilities of objective validation of NIC (Nursing Interventions Classification) nursing interventions in relation to selected nursing diagnoses. They contribute to the professionalisation of care for women and children.

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Primary Paper Section: F

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