



e-supplement

Nutrition therapy in neurological diseases

Development of an ICF-Dietetics core-assessment set including qualitative patient interviews

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Inclusion and exclusion criteria		
Inclusion criteria		Exclusion criteria
gender	m/f/non-binary/intersex	–
age in years	≥ 18–≤ 80	< 18; > 80
diagnosis according to ICD 10	stroke/Parkinson’s disease/multiple sclerosis/amyotrophic lateral sclerosis	other diagnoses according to ICD 10
neurological status	stable disease phase physical + cognitive capacity required for interview	acute disease phase lack of physical + cognitive capacity required for interview
location	neurological rehabilitation facility	acute facility
informed consent	written consent, willingness to participate voluntarily	interview with relatives

Tab. e1: Inclusion and exclusion criteria (authors’ own presentation)

ICF-Dietetics core-assessment set for neurology		
Body functions items (b) & Bodily structures (s) 58 items	Activities (a) 35 items	Participation (p) 5 items
b110 Consciousness functions, b117 Intellectual functions, b126 Temperament and personality functions, b1301 Motivation, b1302 Appetite, b1308 Other specified energy and drive functions: Tiredness, b134 Sleep functions, b140 Attention functions, b1470 Psychomotor control, b152 Emotional functions, b152200 Fear, b1563 Gustatory perception, b1601 Form of thought, b164 Higher-level cognitive functions, b1678 Other specified mental functions of language: Ability to communicate, b180 Experience of self and time functions, b215 Functions of structures adjoining the eye, b250 Taste functions, b255 Smell function, b280 Sensation of pain, b36040 Dry mouth, b420 Blood pressure functions, b431 Clinical chemical blood composition, b433 Hematology, b435 Immune system functions, b440 Respiration functions, b4608 Other specified sensations associated with cardiovascular and respiratory functions b510 Ingestion functions, b5102 Chewing, b5104 Salivation, b5105 Swallowing, b5106 Functions that expel contents from the stomach, esophagus, and throat, b51081 Aspiration, b515 Digestive functions, b5153 Tolerance to food, b525 Defecation functions, b530 Weight maintenance functions, b531 Weight change, b532 Nutritional status, b534 Body composition, b535 Sensations associated with the digestive system, b53500 Nausea and vomiting, b5390 Patient/client looks ill, b5404 Energy requirements, b5405 Nutrient requirements, b5408 Other specified general metabolic functions: Fluid requirements, b54500 Water retention, b560 Functions of maintaining body growth, b730 Muscle power functions, b765 Involuntary movement functions, b780 Sensations related to muscles and movement functions, b820 Repair functions of the skin s3200 Teeth, s70500 Height, s70510 Waist circumference, s7052 Body weight, s7054 Body-Mass-Index (BMI), s810 Structure of areas of skin	a163 Thinking, a1661 Understanding written language, a16611 Reading and understanding recipes, a170 Writing, a175 Solving problems, a177 Making decisions, a210 Undertaking a single task, a230 Carrying out daily routine, a240 Handling stress and other psychological demands, a4153 Maintaining a sitting position, a440 Fine hand use, a445 Hand and arm use, a550 Eating, a560 Drinking, a5701 Managing nutrition, diet and fitness, a570100 Selecting and eating meals, a570101 Managing food intake, a570102 Managing nutrient intake, a570103 Managing energy intake, a570104 Managing the distribution of food/nutrients over the day, a570105 Managing age-appropriate food, a570110 Managing the selection of varied foods within the possibilities of the diet, a570111 Managing the use of dietary products, balanced diets and food supplements, a570112 Managing the diet under specific circumstances, a570113 Selecting and eating meals in accordance with individual dietary restrictions, a570114 Managing nutrient intake in accordance with the diet, a570115 Ensuring proper energy intake in accordance with the diet, a570116 Ensuring the distribution of food/nutrients over the day in accordance with the diet, a57012 Exhibiting appropriate eating behavior, a57013 Managing appropriate physical activity, a5702 Maintaining one's health, a57020 Handling medication appropriately and following health recommendations, a57022 Avoiding risks of drug and alcohol abuse, a620 Acquisition of goods and services of daily necessity, a630 Preparing meals.	p4 Mobility, p750 Informal social relationships, p760 Family relationships, p910 Community life, p920 Recreation and leisure
Environmental factors (e) taking into account promoting factors (Pr) and barriers (B) 12 items		Personal factors (pf) 18 items
e110 Products or substances for personal consumption, e1151 Assistive products and technology for personal use in daily living (Pr), e1650 Financial assets, e245 Time-related changes (time of day) (B), e310 Immediate family, e315 Extended family, e320 Friends, e340 Personal care providers and personal assistants, e355 Health professionals, e410 Individual attitudes of immediate family members, e465 Social norms, practices and ideologies (B), e5800 Health services (Pr)		pf127 Language competence, pf130 Cultural/religious background, pf135 Socioeconomic status, pf410 Personal efficacy, pf415 Resilience (sense of coherence), pf433 Acceptance of illness and restricted personal functioning (Pr), pf435 Self-worth/self-esteem, pf437 Striving for goals/ideals (Pr), pf450 Adherence to treatment, pf4550 Attitude towards eating behavior, pf4632 Enjoyment (Pr), pf465 Knowledge about diseases and functions, pf480 Quality of life/well-being, pf610 Smoking, pf615 Use of alcohol, pf630 Nutritional habits, pf710 Occupation, pf810 Social and community participation

Tab. e2: ICF-Dietetics core-assessment set for neurology

B: barrier; Pr: promoting factor



Presentation of consensus building results														
Delphi 1 n = 21		Delphi 2 n = 21			ICF-Dietetics core set									
basic categories following reduction	items	number/ level number chapter (C)	ICF-DCS after 1st rating cut-off ≥ 75%	Dissent 1st rating/ basis for 2nd rating	out	Basic categories after Delphi 1	Items	Number/ level	ICF-DCS after 2nd rating Cut-off ≥ 75%	Dissent 2nd rating/basis for ICF-DCS	out	Categories	Items	Number/level Number chapter (C)
(b, s)	61	30/2 23/3 8/4	45	13	3	(b, s)	13	10/2 2/3 1/4	1	12	0	(b, s)	58	32/2 18/3 7/4 1/5
(a)	37	15/2 4/3 18/4	30	5	2	(a)	5	3/2 1/3 1/4	2	3	0	(a)	35	13/2 4/3 18/4
(p)	6	5/2 1 C	4/2 1 C	1	1	(p)	1	1/2	0	1	0	(p)	5	4/2 1 C
(e)	14	11/2 3/3	6	6	2	(e)	6	5/2 1/3	2	4	0	(e)	12	9/2 3/3
(pf)	18	16/2 2/3	14	4	0	(pf)	4	4/2	1	3	0	(pf)	18	16/2 2/3
Total	136		99	29	8	Total	29		6	23	0		128	

Tab. e3: Presentation of results from Delphi rounds 1 and 2 for consensus building in the ICF-Dietetics core-assessment set (authors' own presentation)

a: activities; b: body functions; C: chapter; e: environment; ICF-DCS: ICF-Dietetics core set; n: number of participants; p: participation; pf: personal factors; s: body structures

Level	Code	Name of ICF-Dietetics category	Agreement after 2nd Delphi survey as a percentage	Direct integration into the ICF-Dietetics core-assessment set
2	b126	Temperament and personality functions	71.43	
2	b134	Sleep functions	66.67	
3	b1470	Psychomotor control	71.43	
3	b1601	Form of thought	85.71	✓
2	b180	Experience of self and time functions	71.43	
2	b215	Functions of structures adjoining the eye	57.14	
2	b420	Blood pressure functions	66.67	
2	b435	Immune system functions	71.43	
2	b440	Respiratory functions	66.67	
2	b560	Functions of maintaining body growth	61.90	
2	b780	Sensations related to muscles and movement functions	61.90	
4	s70510	Waist circumference	61.90	
2	s810	Structure of skin areas	47.62	
2	a163	Thinking	42.86	
2	a210	Undertaking a single task	52.38	
3	a4153	Maintaining a sitting position	80.95	✓
2	a440	Fine hand use	80.95	✓
4	a57022	Avoiding risks of drug and alcohol abuse	71.43	
2	p910	Community life	57.14	
3	e1650	Financial assets	71.43	
2	e245	Time-related changes (time of day) (B)	52.38	
2	e315	Extended family	69.10	
2	e320	Friends	76.19	✓
2	e410	Individual attitudes of immediate family members	76.19	✓
2	e465	Social norms, practices and ideologies (B)	71.43	
2	P410	Personal efficacy	76.19	✓
2	pf415	Resilience	66.67	
2	pf435	Self-worth/self esteem	71.43	
2	pf437	Striving for goals/ideals (Pr)	61.90	

Tab. e4: **29 ICF-Dietetics categories after the 2nd Delphi survey** (authors' own presentation)
B: barrier; Pr: promoting factor



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