J Rehabil Med 2021; 53: jrm00189

ORIGINAL REPORT

CONTEXTUALIZING THE LIVED EXPERIENCES OF PATIENTS WITH LOW BACK PAIN FROM DIFFERENT COUNTRIES ACCORDING TO THE ICF FRAMEWORK

Ellen AARTUN, PhD[1,2,3], Iben AXÉN, PhD[2,4], Silvano MIOR, PhD[5,6], Yngve RØE, PhD[7], Maria HONDRAS, PhD[8], Lise KRETZ, MChiro[1,2,7] and Pierre CÔTÉ, PhD[3,6]

From the [1]Department of Interdisciplinary Health Sciences, University of Oslo, Norway, [2]The Norwegian Chiropractic Research Foundation "Et Liv I Bevegelse", Norway, [3]Faculty of Health Sciences, Ontario Tech University, Oshawa, Ontario, Canada, [4]Karolinska Institutet, Institute of Environmental Medicine, Unit of Intervention and Implementation Research for Worker Health, Stockholm, Sweden, [5]Canadian Memorial College of Chiropractic, Toronto, Ontario, Canada, [6]Centre for Disability Prevention and Rehabilitation at Ontario Tech University and CMCC, [7]Department of Physiotherapy, Oslo Metropolitan University, Oslo, Norway, [8]Department of Anesthesiology, University of Kansas Medical Center, Kansas City, KS, USA.

Objective: **To explore perspectives, including social and psychological aspects, of patients seeking manual care for low back pain, in order to understand constructs of functioning that are important across different cultural contexts. The International Classification of Functioning, Disability and Health (ICF) emphasizes the importance of these aspects to describe health-related functioning.**

Design: **Focus group interviews.**

Patients: **Patients from Botswana, Canada and Norway seeking manual care for their low back pain.**

Methods: Interviews were conducted in the 3 countries, transcribed verbatim, translated into English, and linked to the ICF according to established rules.

Results: **Seven focus groups yielded 1,863 meaningful concepts that were linked to ICF categories. The largest proportion of responses linked to the Activities and Participation domain. The most frequently mentioned chapters related to pain and its mental aspects, suggesting that the psychological impact of living with low back pain is important to patients.**

Conclusion: **Despite cultural differences, patients seeking manual care for low back pain in Botswana, Canada and Norway reported similar experiences of disability across ICF domains. The relatively high ranking of psychosocial factors highlights their importance for patients, in addition to factors of biological origin, and indicates that the contextual nature of the lived experience of low back pain may not be covered in standard examinations used in manual medicine.**

Key words: low back pain; International Classification of Functioning Disability and Health; disability; health manual therapy.

Accepted Mar 11, 2021; Epub ahead of print Mar 29, 2021

J Rehabil Med 2021, 53: jrm00189

Correspondence address: Iben Axén, Karolinska Institutet, Institute of Environmental Medicine, Nobels väg 13, 177 71 Stockholm, Sweden. E-mail: iben.axen@ki.se

LAY ABSTRACT

The aim of this study was to understand the experiences of people living with low back pain in 3 countries. The study explored perspectives of patients seeking manual care for low back pain, in order to understand aspects of functioning across different cultural contexts. Seven focus groups with 31 patients seeking manual care for their low back pain in Botswana, Canada and Norway were recorded, transcribed, and coded using the International Classification of Functioning, Disability and Health linking rules to categories. More than 1,800 meaningful concepts were linked to categories, with the largest proportion linked to Activities and Participation. Participants from all 3 countries most frequently mentioned issues related to the pain and mental aspects of health-related functioning, suggesting the psychological impact of living with low back pain is important to patients, regardless of cultural context. While patients seeking manual care are commonly assessed for pain and function, it is also important to capture the lived experiences associated with low back pain.

Low back pain (LBP) is the leading cause of disability globally (1), and is expected to increase further in the coming decades due to population growth and ageing (2). LBP affects physical wellbeing, but also personal, societal and psychological aspects of life (3). For people living with pain and disability, these aspects significantly influence their lived experiences, mental health, social interaction, quest for diagnosis and expectations of clinical care (4–6).

In caring for patients with LBP, patient-reported outcomes, such as pain intensity and disability, are commonly assessed (7). However, these assessments do not capture the biopsychosocial (8) and environmental (9) nature of LBP-related disability, which may influence its management and outcomes.

To capture the multifaceted nature and varying patient experiences of disability, the World Health Organization (WHO) developed the International Classification of Functioning, Disability and Health (ICF) framework to collect, document and communicate information about health-related functioning (10). Rather than consider disability a consequence of disease, the ICF operationalizes an integrative model of health and presents related outcomes from the interaction between a person's health condition and their

Foundation of Rehabilitation Information

doi: 10.2340/16501977-2819

contextual factors (11) (Fig. 1). The ICF framework applies to all people regardless of sex, age, culture or health condition, and provides a common language to describe functioning across health professions.

Furthermore, the WHO delineated a system of concepts and a hierarchical classification system based on components, chapters and categories (12). Functional depictions include: Body Functions and Structure according to body regions or systems; Activities and Participation from both individual and societal perspectives; from specific to general Environmental Factors (12). Personal Factors, although considered important to the ICF (13), are not classified because of their wide social and cultural variance (12).

The ICF comprises more than 1,400 human functioning categories and serves as a framework to organize information (12). To increase applicability for clinical assessments and research, ICF Core Sets were developed, based on literature reviews, expert surveys and quantitative and qualitative clinical studies (14). Core Sets include category selections that describe the typical spectrum of functioning problems for patients with specific conditions (15).

In manual medicine, little is known about the core components of LBP-related disability relevant to patients. Most clinical tools used in manual medicine measure functioning and disability related to Body Functions and Activities and Participation (9). In general, patients' main reasons for seeking care for LBP are pain (16) and, especially, higher levels of disability (17), but also fear of future job impairment, limited social functioning and engagement in sports (17). However, patients seeking manual medicine may differ from patients seeking traditional medical care (18).

The aim of this study was to explore the perspectives of patients seeking manual care for LBP in 3 countries, in order to understand what constructs of functioning are important to them. The ICF framework was used to guide the analysis of lived experiences of persons with LBP and disability. This study is part of an international, collaborative project between Ontario Tech University (Ontario Tech) and the University of Oslo, to identify the aspects of functioning that are most important to patients, and, subsequently, to develop an ICF assessment schedule for manual medicine with standardized measurement and reporting of functioning.

MATERIALS AND METHODS

Design and setting

The design is a multicentre qualitative study of patients seeking manual care for LBP. Seven focus group interviews were conducted, in both developed and developing countries: 3 in Canada, and 2 in both Botswana and Norway.

Participants

Patients between the ages of 20 and 65 years, who consulted a participating clinic for LBP in 1 of the 3 countries, were eligible. Those who did not speak the native language of each respective country were excluded. Purposeful sampling was used to recruit patients from several manual medicine clinics located in 3 countries. Each participating clinic received full information about the study.

Participants in Canada were recruited from 3 Canadian Memorial Chiropractic College (CMCC) teaching clinics in the Greater Toronto Area in Ontario, which care for patients of different socioeconomic backgrounds. Participants in Botswana were recruited through the World Spine Care network and included patients from Shoshong, a rural village of approximately 10,000 people (19). Participants in Norway were recruited from chiropractic and manual therapy clinics in the Oslo area, capturing diverse social, economic, and educational backgrounds.

All participants gave their informed consent in their native language and completed a questionnaire with demographic details. Approvals from the Regional Ethics Committees were received in Canada from the Research Ethics Boards of Ontario Tech University (REB # 14050) and CMCC (REB # 1629014). In Botswana, the project was part of the World Spine Care initiative, led by Ontario Tech University, which granted ethical approval (REB #14232) alongside The Ministry of Health, Republic of Botswana (HPDME 13/18/1 X (773)), and in Norway, the project was deemed exempt from ethics approval (decision 2016/1116) as it did not directly collect information on health or disease.

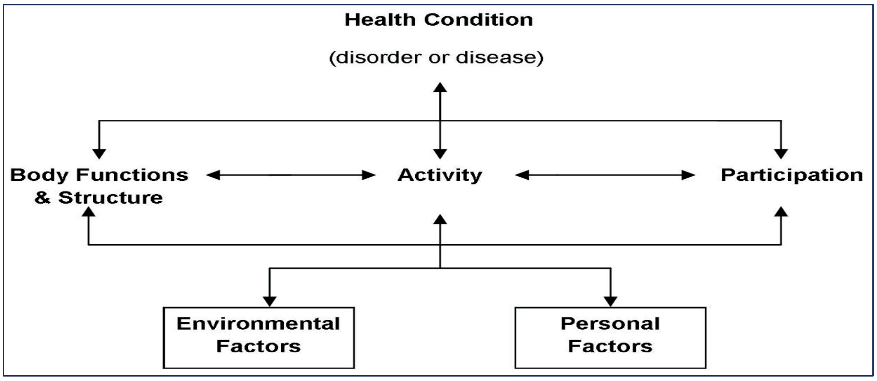

Fig. 1. Components of the International Classification of Function, Disability and Health (ICF) model.

Table I. Sex and age of the participants in each focus group

Characteristics	Canada FG1	Canada FG2	Canada FG3	Botswana FG1	Botswana FG2	Norway FG1	Norway FG2	Total
Sex								
Male	2	2	1	1	1	2	1	10
Female	3	2	2	5	4	3	2	21
Age group								
20–35 years	0	1	1	1	1	2	0	6
36–50 years	1	1	0	0	1	2	2	7
51–65 years	4	2	2	5	3	1	1	18
Total	5	4	3	6	5	5	3	31

FG: focus group.

Data collection

Focus group methodology guided by a semi-structured interview schedule with open-ended and accompanying probing questions was used for data collection. The questions were framed according to the 5 ICF domains (body function and structures, activities, participation, environmental factors and personal factors). The interview guide is shown in Appendix I. Two examples of questions and probes are:

1. What sorts of emotional or mental responses have you noticed about yourself while living with LBP? (Probes: ability to concentrate; whether easily distracted; energy levels; ability to fall and stay asleep)
2. Tell us about some of the social activities you are involved in. (Probes: limitations, barriers; impact on others (e.g. friends, family, colleagues); frequency of socializing)

Basic demographic data were collected from participants prior to discussions. A trained facilitator guided the discussion to ensure input from all participants.

Focus group meetings were conducted in 2016 and 2017 in locations convenient for participants, in their native language. An interpreter was used in the 2 Botswanan focus groups to translate the discussion from Setswana into English. All conversations were audio-recorded and transcribed verbatim. Participants were seated in a circular arrangement and encouraged to share individual experiences regarding their LBP. All focus groups lasted approximately 90 min.

Quality assurance was deliberate in Botswana, using close collaboration with the transcriptionist to ensure that the transcripts accurately reflected the interviews. Field notes were kept in the Botswanan and Canadian settings to record non-verbal behaviours and to augment the transcripts.

The International Classification of Functioning, Disability and Health content linking

Focus group interviews were translated into English and thematically analysed by first coding and organizing key passages. The codes were then organized into related categories and linked to components of the ICF framework, using the refined linking rules of the ICF, according to the 10 refined linking rules (12, 20, 21). Linking rules 1–3 specify how to get familiar with the ICF, identifying the purpose of a concept to be linked to the ICF. First, the meaning of the information to be linked was identified (rule 1, 2 and 3) (20). The next step was to document the perspectives from which the information was collected (linking rule 4). The most common perspectives are the descriptive appraisal and the needs or dependency perspectives (20). The descriptive perspective refers to a person's function of the body, the ability to perform a task in a standardized environment (capacity), or actual performance of certain task or activities in the natural environment. Linking rule 5, concerns the categorization of the response option in a measure and was not relevant in the present study. Finally, all concepts identified during steps 2 and 3 were linked to the most precise ICF category (linking rules 6–10). The "not definable" (nd) option was used for those concepts not sufficiently specified to allow linking to ICF. Likewise, if a concept was not covered by any of the ICF classifications, the option not covered (nc) was used.

Each translated interview was independently linked by 2 researchers with diverse professional backgrounds and experiences. The researchers involved in the linking process viewed presentations from an ICF workshop, and underwent e-learning from the WHO website (22) including a discussion of the resulting self-assessment in order to share an understanding of the linking process. They discussed and resolved ambiguities in coding until consensus was reached.

As an example, a comment from one of the participants was "lifting is very hard for me", where "lifting" was identified as the meaningful concept and subsequently linked to the ICF category "d4300 Lifting".

Agreement between reviewers regarding second-level ICF categories was calculated with the Cohen's kappa coefficient. The 95% confidence intervals (95% CI) for the kappa coefficient were calculated using the standard error of the kappa: $k \pm 1.96\, SE_k$ (23).

RESULTS

Participants' basic demographic information varied by site, with an overall greater proportion of females and those between 51 and 65 years age represented (see Table I).

Altogether, 1,863 meaningful concepts were identified and linked to the ICF, of these 499 were from the Canadian interviews, 514 from the Botswanan interviews, and 850 from the Norwegian interviews. The calculated kappa coefficient of the linking was 0.87 for the Canadian interviews (95% CI 0.84–0.89), 0.90 for the Botswanan interviews (95% CI 0.87–0.92), and 0.83 for the Norwegian interviews (95% CI 0.81–0.86).

Linked ICF categories are shown in Tables II–IV. Of the linked ICF categories, 496 (26.6%) belonged to Body Functions (Table II), 38 (2.0%) to Body Structures component, 744 (40.0%) to Activities and Participation (Table III) and 329 (17.7%) to Environmental Factors (Table IV). In addition, 217 (11.6%) meaningful concepts were classified as Personal Factors, and 39 (2.1%) as not covered by the ICF. The

Table II. In descending order, linked second-level International Classification of Function, Disability and Health (ICF) categories belonging to Body Function

Functions	Canada (*n*=91)	Botswana (*n*=139)	Norway (*n*=266)	Total (*n*=496)	Percentage (% of total 26.6)
b280 Sensation of pain	33	81	127	241	12.9
b152 Emotional functions	15	16	22	53	2.8
b134 Sleep functions	7	14	15	36	1.9
b780 Sensations related to muscles and movement functions	7		25	32	1.7
b130 Energy and drive functions	3	3	22	28	1.5
b455 Exercise tolerance functions	2	3	9	14	0.8
b730 Muscle power functions	1	2	6	9	0.5
b140 Attention functions	1	3	3	7	0.4
b770 Gait pattern functions	2		3	5	0.3
b240 Sensations associated with hearing and vestibular function	1	3		4	0.2
b265 Touch function	1	3		4	0.2
b160 Thought functions	1		2	3	0.2
b440 Respiration functions		2		2	0.1
b550 Thermoregulatory functions	2			2	0.1
b710 Mobility of joint functions	2			2	0.1
b830 Other functions of the skin		2		2	0.1
b147 Psychomotor functions	1			1	0.1
b210 Seeing functions		1		1	0.1
b410 Heart functions		1		1	0.1
b450 Additional respiratory functions		1		1	0.1
b760 Control of voluntary movement functions			1	1	0.1
b840 Sensation related to the skin	1			1	0.1
Body functions, not defined	6	3	20	29	1.6
b1 Mental functions, not defined	1	1		2	0.1
b7 Neuromuscular and movement-related functions, not defined	4		11	15	0.8

analysis shows that most categories were mentioned among participants in all 3 countries, despite contextual differences.

Among the ICF categories belonging to Body Functions, the most frequently mentioned ICF chapters were b2 Sensory functions and pain (13.4%), b1 Mental functions (7.0%), and b7 Neuromusculoskeletal and movement-related functions (3.4%). Altogether, 22 unique second-level ICF categories were identified. The most frequent category mentioned was b280 Sensation of pain, followed by b152 Emotional functions, b134 Sleep functions, b780 Sensations related to muscles and movement functions, and b130 Energy and drive functions. Body Structures accounted for only 2% of the categories mentioned, mainly relating to movement (1.9%), or Body structures, not defined.

Among the ICF categories belonging to Activities and Participation, the most frequent ICF chapters were d4 Mobility (19.0%), d9 Community, social and civic life (6.3%), d6 Domestic life (5.3%) and d8 Major life areas (4.1%). Altogether, 37 different second-level ICF categories were identified. The most frequent categories, in descending order, were d415 Maintaining a body position, d920 Recreation and leisure, d410 Changing basic body position, d850 Remunerative employment, d430 Lifting and carrying objects and d450 Walking.

Among the Environmental Factors, the most frequent ICF chapters were e5 Services, systems and policies (6.7%), e1 Products and technology (5.2%), and e3 Support and relationships (4.5%). Altogether, 29 different second-level ICF categories were identified. The most frequent categories in descending order were: e580 Health services, systems and policies, e115 Products and technology for personal use in daily living, e310 Immediate family, e135 Products and technology for employment, e110 Products or substances for personal consumption, and e355 Health professionals.

Altogether 217 meaningful concepts (11.6%) were classified as Personal Factors. Among these, beliefs about back pain and concerns about the future were frequently reported in all 3 countries. In the Botswanan material, participants frequently mentioned that problems related to widespread pain and other comorbidities interfered with their back pain.

DISCUSSION

Focus group interviews were conducted with patients seeking manual care for LBP, with participants from 3 different countries, to explore their perspectives and to understand what constructs of functioning are important across different contexts. The largest proportion of responses was linked to the domain Activities and Participation, while the most frequently mentioned chapters related to Body Functions and its mental aspects.

As expected, the Body Functions category "pain" was the overall most frequent category across components, accounting for almost 13% of total cases. It is, however, worth noting that, within the Body Functions component, mental functions, such as emotional, sleep,

Table III. In descending order, linked second-level International Classification of Function, Disability and Health (ICF) categories belonging to Activities and Participation

	Canada (*n* = 201)	Botswana (*n* = 246)	Norway (*n* = 297)	Total (*n* = 744)	Percentage (% of total 40.0%)
d415 Maintaining a body position	25	24	55	104	5.6
d920 Recreation and leisure	31	20	48	99	5.3
d410 Changing basic body position	6	33	28	67	3.8
d850 Remunerative employment	11	19	35	65	3.5
d430 Lifting and carrying objects	15	11	18	44	2.4
d450 Walking	10	11	22	43	2.3
d640 Doing housework	4	13	9	26	1.4
d650 Caring for household objects	3	17	4	24	1.3
d470 Using transportation	8	3	10	21	1.1
d455 Moving around	13	3	4	20	1.1
d910 Community life	7	7	2	16	0.9
d210 Undertaking a single task	4	8	3	15	0.8
d475 Driving	6	2	6	14	0.8
d630 Preparing meals	5	7	2	14	0.8
d240 Handling stress and other psychological demands	2	2	9	13	0.7
d660 Assisting others	4	8	1	13	0.7
d460 Moving around in different locations	4	8		12	0.6
d440 Fine hand use	5	3		8	0.4
d620 Acquisition of goods and services	1	7		8	0.4
d445 Hand and arm use	2	3	2	7	0.4
d510 Washing oneself	3	3		6	0.3
d465 Moving around using equipment	2		2	4	0.2
d770 Intimate relationships		2	2	4	0.2
d230 Carrying out daily routine		3		3	0.2
d540 Dressing	1	1	1	3	0.2
d830 Higher education			3	3	0.2
d360 Using communication devices and techniques			2	2	0.1
d845 Acquiring. keeping and terminating a job	2			2	0.1
d855 Non-remunerative employment	2			2	0.1
d166 Reading			1	1	0.1
d310 Communicating with - receiving - spoken messages			1	1	0.1
d435 Moving objects with lower extremities			1	1	0.1
d480 Riding animals for transportation	1			1	0.1
d530 Toileting			1	1	0.1
d750 Informal social relationships	1			1	0.1
d930 Religion and spirituality	1			1	0.1
Activities and Participation, not defined	11	14	21	46	2.5
d2 General tasks and demands, not defined	1	2		3	0.2
d4 Mobility, not defined	3	2		5	0.3
d5 Self-care, not defined		1		1	0.1
d6 Domestic life, not defined	1	8	4	13	0.7
d8 Major life areas, not defined	4			4	0.2
d9 Community, social and civic life, not defined	1			1	0.1

and energy and drive functions, were ranked 2, 3 and 5, respectively. Such findings support the complexity and multidimensionality of LBP and its strong association with mental health symptoms and impact on recovery (24). The relatively high ranking of other psychosocial factors (recreation and leisure, remunerative employment, immediate family, health services) speaks to their importance for patients beyond those of biological origin, and is consistent with findings from qualitative studies exploring lived experiences of patients with LBP (5, 25–27). For example, a recent qualitative study of patients with LBP identified psychological and emotional dimensions as 1 of 5 main themes in the interviews (27).

The highest number of categories (40%) was found within Activities and Participation, suggesting the importance of this domain in people living with back pain, which is well covered by routine instruments in manual medicine (9). Similar concern with loss of function and its effect on performing various activities was a key theme identified among studies exploring patients' experiences with chronic LBP (3). The impacted activities emerging from this work are consistent with those linked to this domain in the current study, such as mobility for daily activities, which accounted for almost one-fifth of the categories linked from the interviews. In particular, activities involving moving or maintaining a position, or lifting and carrying, were frequently identified. This finding further supports key determinants for care-seeking in patients with LBP, where higher levels of disability are more strongly associated with seeking care than is pain intensity (17).

Environmental Factors accounted for nearly one-fifth of the concepts mentioned, confirming the contextual nature of the lived experience of back pain. In particular, health systems and support from family

Table IV. In descending order, linked second-level International Classification of Function, Disability and Health (ICF) categories belonging to Environmental Factors

Category	Canada (*n* = 116)	Botswana (*n* = 59)	Norway (*n* = 154)	Total (*n* = 329)	Percentage (% of total 17.7%)
e580 Health services, systems and policies	31	28	51	110	5.9
e115 Products and technology for personal use in daily living	22	2	20	44	2.4
e310 Immediate family	3	11	8	22	1.2
e135 Products and technology for employment			18	18	1.0
e110 Products or substances for personal consumption	6	2	9	17	0.9
e355 Health professionals	8	5	4	17	0.9
e120 Products and technology for personal indoor and outdoor	3	1	4	8	0.4
e150 Design, construction and building products and technology	4		2	6	0.3
e360 Health-related professionals	3		2	5	0.3
e570 Social security services, systems and policies	1		4	5	0.3
e320 Friends	2		2	4	0.2
e325 Acquaintances, peers colleagues, neighbours and community	3		1	4	0.2
e540 Transportation services, systems and policies			3	3	0.2
e155 Design, construction and building products and technology of build	2			2	0.1
e315 Extended family	1	1		2	0.1
e330 People in positions of authority			2	2	0.1
e340 Personal care providers and personal assistants	1		1	2	0.1
e425 Individual attitudes of acquaintances, peers colleagues, *n*			2	2	0.1
e430 Individual attitudes of people in positions of authority	2			2	0.1
e210 Physical geography			1	1	0.1
e225 Climate		1		1	0.1
e255 Vibration			1	1	0.1
e345 Strangers	1			1	0.1
e445 Individual attitudes of strangers			1	1	0.1
e530 Utilities services, systems and policies		1		1	0.1
e550 Legal services, systems and policies			1	1	0.1
e555 Associations and organizational services, systems and policies	1			1	0.1
e575 General social support services, systems and policies	1			1	0.1
e590 Labour and employment services, systems and policies	1			1	0.1
Environmental factors, not defined	1	2	2	5	0.3
e1 Products and technology, not defined	1			1	0.1
e3 Support and relationships, not defined	9	5	9	23	1.3
e4 Attitudes, not defined	9		5	14	0.8
e5 Services, systems and policies, not defined			1	1	0.1

were frequently mentioned as facilitators for functioning by the participants. Such contextual factors have previously been found to have a significant impact on care seeking (17); patient perspectives on employment and work environments (28); personal, family and social relationships (5, 29); and health system experiences and expectations (5, 28); and may not be covered in standard examinations used in manual medicine (9). Linking patients' experiences to each of the ICF domains in our study supports and emphasizes the biopsychosocial foundation of the ICF framework.

Overall, there was considerable overlap between patient experiences among the Canadian, Botswanan and Norwegian participants. With few exceptions, categories were similarly highly ranked across nationalities. This is of interest, given the differences in socioeconomic and health status between Canada, Norway and Botswana (1). In addition, the concept of disability and related functional status varies among cultures (30), as do illness perceptions, self-efficacy, pain attitudes (31), and the ways people behave and perform tasks (32). However, some diversity was observed between countries; for example, concepts relating to changing basic body position were not mentioned among the participants from Canada to the same degree as among the participants from the 2 other countries; whilst doing housework, assisting others, preparing meals, and remunerative work were mentioned more frequently among the Botswanan participants. These differences may be related to unique cultural factors (33) or variations in focus group interactions and interpretation of interview questions. Another possible explanation for these differences is that the Botswanan sample mainly included women in the older age category, because HIV/AIDS and outmigration of people of working ages has resulted in a skewed age distribution (25).

The most common ICF components identified in the current study are included in the Core Set. In fact, the most frequently mentioned component in each ICF domain in the study is that ranked as first in the Brief Core Set, except for Body Structure, for which the component was ranked third. The data therefore strengthens the clinical applicability of the Brief ICF Core Set for patients with LBP (15), reported to capture items important to patients (34) and to patients setting rehabilitation goals (35). However, similar to the current findings, the Brief Core Set can be challenged for not capturing items reflecting enjoyed activities prevented by LBP (25, 34), needing country-specific scores to clinically measure function (33), lacking detailed information about function (36), as well as personal factors that reflect lived experiences important to patients (37). Mullis et al. explored whether functional problems identified by patients with LBP seeking physiotherapy were included in the Core Set for LBP (34). They reported the Brief Core Set adequately captured items patients had most difficulty with, but not items that reflected enjoyed activities prevented by their LBP. Similarly, Ibsen et al. compared the ICF Core Set with commonly used patient-recorded-outcome measures, and found only a 34% overlap, highlighting that commonly used outcomes fail to adequately capture the lived experience of people with LBP (38).

Personal factors and meaningful concepts not covered by the ICF accounted for 11.6% and 2.1%, respectively, of the meaningful concepts. In the ICF, Personal Factors are the particular background of an individual's life and living and comprise features of the individual that are not part of a health condition or health states (39). In a recent systematic review, Personal Factors were acknowledged as relevant to the ICF framework as determinants, but also as outcomes, moderators or modifiers of health and disability, previously discussed as potentially enhancing the empowerment of persons with disabilities (13). If the ICF is to fully capture the totality of an individual's health-related experience within a biopsychosocial model, including such factors is critical to understanding the lived experiences of patients with LBP with varying degrees of pain and disability. The considerable number of non-classified concepts in the data in the current study highlight a key limitation of the clinical applicability of the ICF and support the need for a standardized classification of this category by the ICF.

Although not systematically analysed, Personal Factors differed somewhat between countries. This may reflect the limitations in the healthcare system, rendering Botswanan patients more dependent on social support to cope with their LBP condition, but may also suggest that the lack of standardization of ICF Personal Factors may conceal important cultural variations in disability. These findings support the suggestion that Personal Factors may be important in the clinical assessment of patients (39). A recent scoping review found that Personal Factors were not commonly assessed in manual medicine (9).

The current study has several strengths, including: (*i*) use of similar interview guides and probes grounded within the ICF framework; (*ii*) consistency in analysis and interpretation with high kappa scores to limit misclassification, thereby avoiding coding variation that may occur if conducted independently in each country (32); and (*iii*) sampled patients from different cultures. The study had some limitations, including: (*i*) population sampled differed by country, e.g. Canada (recruited from chiropractic teaching clinics) compared with Norway (recruitment took place from different manual therapists), and Botswana (recruitment through Spine Care clinics); (*ii*) variation in demographics: age and sex are important in how LBP is experienced (40); (*iii*) number of participants varied by site, impacting the saturation in each category; and (*iv*) despite a similar number of focus groups in countries, the resultant variation in number of categories identified may reflect the depth and quality of the facilitated discussions. Furthermore, there may have been some variation in the severity of LBP and the disability of participants, which could impact patients' experiences (5, 32); however, this information was not collected.

CONCLUSION

Despite cultural differences, Canadian, Botswanan and Norwegian patients seeking manual care for LBP report similar experiences of disability across the ICF domains. ICF categories belonging to Activities and Participation account for almost half of the categories involved, showing the considerable impact of LBP on daily lives. This study illustrates some of the limitations of the ICF for classifying patients' personal beliefs and concerns related to LBP. These results expand our current knowledge of lived experiences of patients with back pain and could be used to inform a future ICF assessment schedule specific for manual medicine.

Funding. Funding was received from Et Liv I Bevegelse (ELIB), the Norwegian Chiropractic Research Foundation, Oslo and the University of Ontario Institute of Technology.

ACKNOWLEDGEMENTS

The authors thank the participants for sharing their experiences, the transcriptionists and the Botswanan interpreter, Tumelo Prince Mokongwa.

The authors have no conflicts of interest to declare.

REFERENCES

1. Hoy DG, Smith E, Cross M, Sanchez-Riera L, Buchbinder R, Blyth FM, et al. The global burden of musculoskeletal conditions for 2010: an overview of methods. Ann Rheum Dis 2014; 73: 982–989.
2. Hartvigsen J, Hancock MJ, Kongsted A, Louw Q, Ferreira ML, Genevay S, et al. What low back pain is and why we need to pay attention. Lancet 2018; 391: 2356–2367.
3. Froud R, Patterson S, Eldridge S, Seale C, Pincus T, Rajendran D, et al. A systematic review and meta-synthesis

of the impact of low back pain on people's lives. BMC Musculoskelet Disord 2014; 15: 50.

4. Liddle SD, Baxter GD, Gracey JH. Chronic low back pain: patients' experiences, opinions and expectations for clinical management. Disabil Rehabil 2007; 29: 1899–1909.
5. Esson SA, Cote P, Weaver R, Aartun E, Mior S. "I stay in bed, sometimes all day." A qualitative study exploring lived experiences of persons with disabling low back pain. J Can Chiropr Assoc 2020; 64: 16–31.
6. Toye F, Seers K, Hannink E, Barker K. A mega-ethnography of eleven qualitative evidence syntheses exploring the experience of living with chronic non-malignant pain. BMC Med Res Methodol 2017; 17: 116.
7. Beliveau PJH, Wong JJ, Sutton DA, Simon NB, Bussieres AE, Mior SA, et al. The chiropractic profession: a scoping review of utilization rates, reasons for seeking care, patient profiles, and care provided. Chiropr Man Therap 2017; 25: 35.
8. Pulles A, Koke AJA, Strackke RP, Smeets R. The responsiveness and interpretability of psychosocial patient-reported outcome measures in chronic musculoskeletal pain rehabilitation. Eur J Pain 2020; 24: 134–144.
9. Nicol R, Yu H, Selb M, Prodinger B, Hartvigsen J, Côté P. How Does the Measurement of Disability in Low Back Pain Map Unto the International Classification of Functioning, Disability and Health?: A Scoping Review of the Manual Medicine Literature. Am J Phys Med Rehabil 2021: 1; 100: 367–395.
10. Ustun TB, Chatterji S, Bickenbach J, Kostanjsek N, Schneider M. The International Classification of Functioning, Disability and Health: a new tool for understanding disability and health. Disabil Rehabil 2003; 25: 565–71.
11. Selb M, Kohler F, Robinson Nicol MM, Riberto M, Stucki G, Kennedy C, et al. ICD-11: a comprehensive picture of health, an update on the ICD-ICF joint use initiative. J Rehabil Med 2015; 47: 2–8.
12. World Health Organization (WHO). International classification of functioning, disability and health 2001. Geneva: WHO. 2001, May 22.
13. Geyh S, Schwegler U, Peter C, Muller R. Representing and organizing information to describe the lived experience of health from a personal factors perspective in the light of the International Classification of Functioning, Disability and Health (ICF): a discussion paper. Disabil Rehabil 2019; 41: 1727–1738.
14. Stucki G, Cieza A, Ewert T, Kostanjsek N, Chatterji S, Ustun TB. Application of the International Classification of Functioning, Disability and Health (ICF) in clinical practice. Disabil Rehabil 2002; 24: 281–282.
15. Cieza A, Ewert T, Ustun TB, Chatterji S, Kostanjsek N, Stucki G. Development of ICF Core Sets for patients with chronic conditions. J Rehabil Med 2004 (44 Suppl): 9–11.
16. Verbeek J, Sengers MJ, Riemens L, Haafkens J. Patient expectations of treatment for back pain: a systematic review of qualitative and quantitative studies. Spine 2004; 29: 2309–2318.
17. Ferreira ML, Machado G, Latimer J, Maher C, Ferreira PH, Smeets RJ. Factors defining care-seeking in low back pain – a meta-analysis of population based surveys. Eur J Pain 2010; 14: 747 e1–e7.
18. Hestbaek L, Munck A, Hartvigsen L, Jarbol DE, Sondergaard J, Kongsted A. Low back pain in primary care: a description of 1250 patients with low back pain in danish general and chiropractic practice. Int J Family Med 2014; 2014: 106102.
19. Central Statistics Office. Botswana population and housing census. Gaborone, 2011.
20. Cieza A, Oberhauser C, Bickenbach J, Jones RN, Ustun TB, Kostanjsek N, et al. Health is not just the absence of disease. Int J Epidemiol 2016; 45: 586–587.
21. Cieza A, Geyh S, Chatterji S, Kostanjsek N, Ustun B, Stucki G. ICF linking rules: an update based on lessons learned. J Rehabil Med 2005; 37: 212–218.
22. World Health Organization (WHO). ICF e-learning. [Assessed 2018 Sep 17] Available from: https://www.icf-elearning.com/wp-content/uploads/articulate_uploads/ICF%20e-Learning%Tool_English_20201014%20-%20Storyline%20output/story_html5.html.
23. McHugh ML. Interrater reliability: the kappa statistic. Biochem Med (Zagreb) 2012; 22: 276–282.
24. Wong JJ, Cote P, Tricco AC, Rosella LC. Examining the effects of low back pain and mental health symptoms on healthcare utilisation and costs: a protocol for a population-based cohort study. BMJ Open 2019; 9: e031749.
25. Hondras M, Hartvigsen J, Myburgh C, Johannessen H. Everyday burden of musculoskeletal conditions among villagers in rural Botswana: a focused ethnography. J Rehabil Med 2016; 48: 449–455.
26. MacNeela P, Doyle C, O'Gorman D, Ruane N, McGuire BE. Experiences of chronic low back pain: a meta-ethnography of qualitative research. Health Psychol Rev 2015; 9: 63–82.
27. Singh G, Newton C, O'Sullivan K, Soundy A, Heneghan NR. Exploring the lived experience and chronic low back pain beliefs of English-speaking Punjabi and white British people: a qualitative study within the NHS. BMJ Open 2018; 8: e020108.
28. Lim YZ, Chou L, Au RTM, Seneviwickrama KLMD, Cicuttini FM, Briggs AM, et al. People with low back pain want clear, consistent and personalised information on prognosis, treatment options and self-management strategies: a systematic review. J Physiother 2019; 65: 124–135.
29. Bailly F, Foltz V, Rozenberg S, Fautrel B, Gossec L. The impact of chronic low back pain is partly related to loss of social role: a qualitative study. Joint Bone Spine 2015; 82: 437–441.
30. Henschke N, Lorenz E, Pokora R, Michaleff ZA, Quartey JNA, Oliveira VC. Understanding cultural influences on back pain and back pain research. Best Pract Res Cl Rh 2016; 30: 1037–1049.
31. Orhan C, Van Looveren E, Cagnie B, Mukhtar NB, Lenoir D, Meeus M. are pain beliefs, cognitions, and behaviors influenced by race, ethnicity, and culture in patients with chronic musculoskeletal pain: a systematic review. Pain Physician 2018; 21: 541–558.
32. Cieza A, Hilfiker R, Chatterji S, Kostanjsek N, Ustun BT, Stucki G. The International Classification of Functioning, Disability, and Health could be used to measure functioning. J Clin Epidemiol 2009; 62: 899–911.
33. Roe C, Bautz-Holter E, Cieza A. Low back pain in 17 countries, a Rasch analysis of the ICF core set for low back pain. Int J Rehabil Res 2013; 36: 38–47.
34. Mullis R, Barber J, Lewis M, Hay E. ICF core sets for low back pain: do they include what matters to patients? J Rehabil Med 2007; 39: 353–357.
35. Bagraith KS, Hayes J, Strong J. Mapping patient goals to the International Classification of Functioning, Disability and Health (ICF): examining the content validity of the low back pain Core Sets. J Rehabil Med 2013; 45: 481–487.
36. Lygren H, Strand LI, Anderson B, Magnussen LH. Do ICF core sets for low back pain include patients' self-reported activity limitations because of back problems? Physiother Res Int 2014; 19: 99–107.
37. Geyh S, Peter C, Muller R, Bickenbach JE, Kostanjsek N, Ustun BT, et al. The Personal Factors of the International Classification of Functioning, Disability and Health in the literature – a systematic review and content analysis. Disabil Rehabil 2011; 33: 1089–1102.
38. Ibsen C, Schiottz-Christensen B, Melchiorsen H, Nielsen CV, Maribo T. Do Patient-reported outcome measures describe functioning in patients with low back pain, using the Brief International Classification of Functioning, Disability and Health Core Set as a reference? J Rehabil Med 2016; 48: 618–624.
39. Cieza A, Geyh S, Chatterji S, Kostanjsek N, Ustun BT, Stucki G. Identification of candidate categories of the International Classification of Functioning Disability and Health (ICF) for a Generic ICF Core Set based on regression modelling. BMC Med Res Methodol 2006; 6: 36.
40. Ferreira ML, de Luca K. Spinal pain and its impact on older people. Best Pract Res Cl Rh 2017; 31: 192–202.

Appendix 1. Focus group interview guide (abridged version).

Body Structure

1. In what part of your body is the pain localized?
   Probe: location of primary and secondary pain and discomfort
2. In what part of your body do you feel the pain is coming from?
   Probe: Joints, muscles, bones

Body Function

3. What sorts of physical problems have you noticed about yourself while living with low back pain (LBP)?
   Probes: strength and endurance; movements and posture

Emotional Energy

4. What sorts of emotional or mental responses have you noticed about yourself while living with LBP?
   Probes: ability to concentrate, if easily distracted, energy levels, ability to fall and stay asleep

Activity and Participation

5. If you think about your daily life, what difficulties do you encounter living with LBP?
   Probe: impact on day-to-day activities, carrying on with usual work or household activities
6. Tell us about some of the social activities you are involved in.
   Probes: limitations, barriers, impact on others (e.g. friends, family, colleagues); frequency socializing

Personal Factors

7. Think about yourself, your life situation, gender, who you are – how does it affect the way you function?
   Probe: experiences with low back pain

Environmental Factors

8. Thinking about your environment, e.g. home, working conditions and social settings, what do you think are some things that enable you to function better?
   Probe: developed habits or use of devices
9. How well do you think society understands you? Would you say people are supportive in helping you manage from day-to-day? How?
   Probe: attitudes and assistance of those around you
10. What services and/or resources in the community have you used and found helpful?
    Probe: system or people assistance

****************hindering factors***

11. Reflecting or thinking about your surroundings, e.g. home, working conditions and social settings, is there anything that limits your ability to adequately function? What limits you and how?
    Probe: challenges and limitations through the day
12. Describe any services or resources which you find difficult to use or implement into your everyday life?
    Probe: difficulties accessing or using resources or services