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Representation of Patients' Health Asset Concepts in the International Classification of Nursing Practice (ICNP) ®

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Abstract The purpose of this study was to evaluate the representation of health asset concepts in the International Classification of Nursing Practice® (ICNP). In a previous study we conducted a concept analysis of health assets, building a conceptual model. The terms included in our conceptual model were cross-mapped to the ICNP terminology system, Version 1.0/1.1. Most of the health asset terms in the conceptual model were represented in ICNP. However, for maximum support of both clinical nursing care and patient self-care, a complete set of health asset terms is needed in the ICNP. We advocate for more research to uncover patients' and clinicians' detailed use of health asset terms. This should result in a richer and more specific health assets vocabulary that could be integrated into ICNP or other nursing terminologies as a means to improve nursing care and to strengthen patients' self-management of their illnesses. However, the findings from this first evaluation of health asset terms in the ICNP are promising, at least on a global level.

Keywords: Health assets, ICNP, cross-mapping

1.Introduction

Information and communication systems, such as an electronic health record (EHR), should integrate not only professional knowledge but also patients' knowledge about their personal strengths (assets), and their preferences for care (1). However, nursing care traditionally has been primarily problem oriented, with less focus on enabling patients to better manage their illness or including the patient's perspective in care and health outcomes (2-4). In more recent years, a growing focus on empowering patients to take a more active role in their health care has led to an important new nursing role—to build upon and strengthen patients' health assets. We define health assets *as "the repertoire of potentials, internal and external strength qualities in the individual's possession, innate and acquired, that mobilize positive health behaviours and optimal health/wellness outcomes"(5).* These potentials include relational, motivational, protective and volitional strengths and can be found in everyone. Examples of internal health assets are humour, optimism, will and goal directedness. Examples of external health assets are the social and cultural context, such as family, and physical environment. Adding a health assets focus to nursing's problem orientation is necessary to strengthen and maintain patient wellness (6).

To support nursing care that includes such a focus, terminology systems should incorporate asset terms so that patients' assets can be assessed, documented, and supported. As a member of the WHO family of terminologies, the ICNP, along with the ICF and ICD10, should include health assets terms. Our research question became: To what extent are the core concepts found in a health assets model (antecedents, attributes, and consequences)(5) represented in the ICNP version 1 terminology?

1.1. Health Assets Model

In a previous study, we conducted a concept analysis of health assets, including the underlying meaning of their attributes, antecedents, and consequences, using Rodgers' evolutionary approach (13). From the results we developed a definition of health assets and a conceptual model of health assets. Figure 1 illustrates the model and its core concepts.

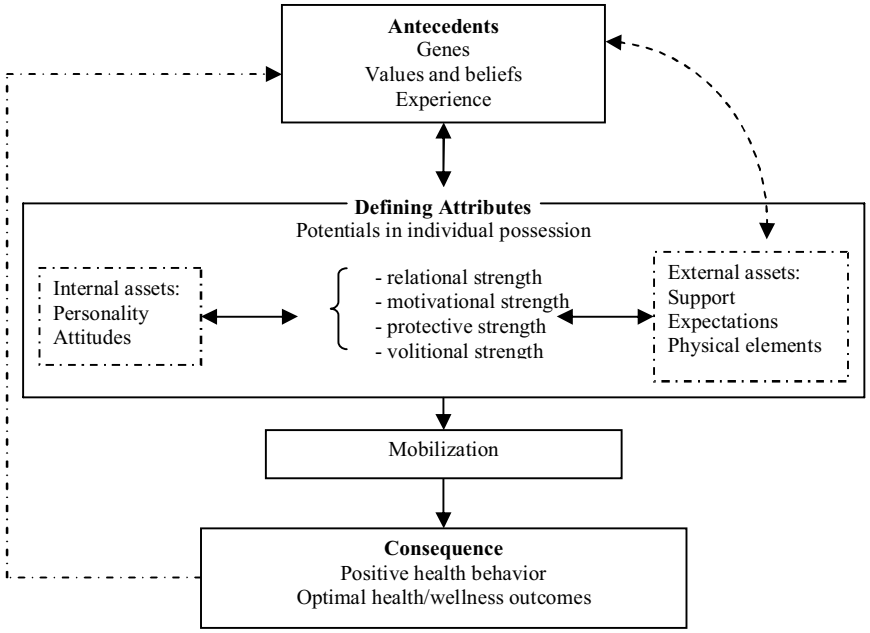

Figure 1. Model of Health Assets

1.2. ICNP Version 1 (2005)

ICNP version 1 is a terminology system developed under the auspices of The International Council of Nurses (ICN) (7). In ICNP version 1, terms are derived from seven axes for expressions of nursing phenomena (diagnoses), interventions and outcomes. It includes nursing concepts used at different levels of nursing practice, across specialties, languages and cultures. ICNP version 1 is a unified nursing language system, with the purpose of contributing to improved global health via better nursing care. It is a compositional terminology for nursing practice that facilitates development of and cross-mapping among local terms and existing terminologies. It is also compatible with the International Standards Organization's (ISO) international standard (IS) 18104, developed for nursing diagnoses and interventions (8). The ISO model for nursing terminologies has been defined as the "gold standard" for cross-mapping among health care terminologies (9). Therefore, we chose ICNP version 1 for cross-mapping its terms to our conceptual model of health assets.

2. Methods

In order to evaluate the representation of health assets in ICNP, the authors cross-mapped the core concepts contained in the conceptual model of health assets displayed in Figure 1 with the ICNP axis of Phenomena, version 1.0/1.1. The units of analysis in this study were the core terms and health assets concepts in our model. These core terms and concepts were derived from our concept analysis of health assets (5) and the preliminary results of five focus group interviews with 26 experienced oncology nurses who were asked to describe the health assets of patients in their practices. If a health asset concept was not found in ICNP, synonymous expressions were identified and cross-mapped.

The browser of the ICNP version 1.1 was used as a search engine (10), along with the tool for translating ICNP version 1 into Norwegian (11;12). We looked up the description of the concept in ICNP version 1 to ensure that it had the same meaning as the health assets term in our model. We checked the singular and plural forms, as well as the verb and noun versions of the concepts / terms. Correspondence between the concepts was discussed and agreed upon between two nurse researchers.

3. Results

The analysis revealed that the majority of the core concepts in the health assets model were represented in ICNP version 1.0 /1.1. However, the main core attribute of *strength* (*power, capacity*) was not found. The sub-dimensions of the strength concept were all represented, except for motivational strength. Neither synonyms of motivation: *incentive, inspiration, drive, enthusiasm* were represented. *Motivating* was found as an action term but not as a focus or phenomena. Concepts for health assets personality, like *optimism*, *courage* and *mood* also were missing in ICNP. Table 1 shows some of the health asset terms in the conceptual model and their representations in ICNP.

4. Discussion

Our analysis demonstrated that the majority of health assets terms represented in the conceptual model could also be found in ICNP. It is encouraging that ICNP version 1.1 includes not only problem-oriented terms but also positive diagnostic statements and foci that reflect health assets.

The asset concepts and terms that were found in ICNP represented different levels of detail; some terms were more specific than others. An example is the term *knowledge* [10011042], which in the health assets model is an element of experience and motivation. In ICNP the *knowledge* concept has a number of children such as *knowledge of medication* [10021859], and there are diagnostic statements such as *Knowledge of Exercise* [10023786]. The ICNP also included terms that reflect positive statements and nursing phenomena consistent with the use of these terms in the health assets model, such as *positive health behavior*, *ability to adjust* [10021828], and *acceptance of health status* [10023499].

Table 1. Example of results of cross-mapping

Health assets conceptual model	Health assets synonym /term	ICNP, axis of Phenomena name - code	Parent
Life experiences	Experience	0	
Possession		0	
	Control	Control [10005135]	Status [10018793]
Relational strength		Relationship [10016684]	Psychosocial Structure [10016096]
	Connectedness	Rapport [10023124]	Relationship [10016684]
	Trust	Trust [10020198]	Thinking [10019663]
Motivational strength	Motivation	0	
Protective strength		Ability To Protect [10000215]	Ability [10000034]
Volitional strength	Volition	Volition [10020855]	Attitude [10002930]
		Impulse [10009903]	Volition [10020855]
		Initiative [10010250]	Volition [10020855]
		Self Control [10017690]	Volition [10020855]
		Will Power [10021109]	Volition [10020855]
		Will To Live [10021113]	Volition [10020855]
	Decide /Decision	Decision Making Process [10005594]	Cognition [10004485]
		Readiness For Enhanced Decision Making [10025278]	Positive Status [10014960] / Psychological Status [10015988]/ Readiness [10016414] / Real Positive Diagnostic Phenomenon [10016479]
		Enhanced Decision Making [10025348]	Decision Making Process [10005594]/ Positive Process [10014918]
Optimal health / wellness	Mastery	0	Well Being [10021047]
	Manage	Ability To Manage Regime [10000068]	Ability [10000034]
	Coping	Coping [10005208]	Attitude [10002930]
	Self-actualization	0	
	Happiness	0	
	Satisfaction	Marital Satisfaction [10011747]/ Job Satisfaction [10025382]	Status [10018793]

Concepts that reflect core elements of health assets, however, were missing in ICNP. Examples are *experiences, strength/power, mastery, happiness, self-fulfillment* and *satisfaction*. Three of the core concepts—*motivation* (strength attribute), *satisfaction,* and *joy* (consequence)—were first found after a more thorough analysis; they were hidden in descriptors of the concepts of *hope* [10009095] and *pride* [10015727]. Whether *motivation* is a subconcept of *hope*, or *satisfaction* a part of *pride*, could be discussed. In the health assets model *hope* is conceptualized under values and beliefs. *Satisfaction* is a consequence of health assets rather than a personal characteristic (pride). Regardless, a term should reflect all elements of its concept. For example, the term *satisfaction* includes only marital and job satisfaction in the ICNP. *Life satisfaction*, an important term in the health assets model and an outcome related to wellness, is missing. Thus more work is needed to define associated terms and the relationships between different concepts.

Although core concepts are mainly abstract and may be sufficient for statistical summaries, more consistent and comprehensive terms are needed to obtain domain completeness for health assets terms. Concrete health asset terms such as *positive mood, optimism,* and *courage* were missing in the ICNP. Other concepts need expansion and depth to support patient care and self-management, e.g., terms expressing patients' experiences (antecedent) in coping with a previous illness or the ability to protect (attribute) oneself from harmful or unreliable information. One way the ICNP could express health assets in greater detail would be to develop terms that have more children and synonyms, in addition to what in ICNP is called "real positive diagnostic statements."

Similarly, the language of health assets should be expanded. Some terms in the health asset model refer to only negative statements in the ICNP. An example is *Trust*, which is only represented in *Lack of Trust in Healthcare Provider* [10021676] and *Low Trust* [10022851] in the ICNP. Trust is a core relational strength in the health assets model and should also be represented as a positive state and phenomenon in the ICNP. Furthermore, the ICNP needs more positive concepts and terms like *strength, power, virtue, vitality, optimism, courage, resiliency*, *happiness* and *humor*. For example, *humor* was found in ICNP only as *humor therapy* [10009244] —an action—not as a strength inherent in a patient and a possible focus of nursing care. Another example is *Mood*, which was represented only as Labile Personality, [10011061] and in the description of migraine [10012046]. Finally, because health assets terms represent the patient's side of the terminology coin, they should be expanded to include patients' own terms in a patient-friendly language.

5. Conclusion

Our first evaluation of the representation of health assets terms in ICNP version 1 was promising; many terms in the health assets model also were found in the ICNP. However, more work is needed to populate the ICNP with terms that result in domain completeness for health assets concepts. We also advocate for additional studies that seek to uncover patients' experiences with their health assets, as well as their use of and need for health assets terms.

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