EVIDENCE-BASED MEDICINE & MEDICAL INFORMATICS | RESEARCH ARTICLE

Using ICF and ICHI to promote sexual health
K Areskoug Josefsson¹,²,* and A-H Almborg¹,³,*

Abstract: Sexual health is an important but often neglected field in health and welfare practice. Using structured documentation in a systematic work process can promote sexual health care including rehabilitation. Objectives: To present an overview of the usefulness of International Classification of Functioning, Disability and Health (ICF) and International Classification of Health Interventions (ICHI) concerning sexual health in the care process, in the electronic health record (EHR) and for follow-up of results. Using experience from practice and research to identify relevant information in health care processes related to sexual health, which are coded by using ICF and ICHI. The ICF and ICHI can be useful tools to describe functioning, patient’s goals, results, planned and performed interventions for investigation, treatment, prevention, and follow-up at individual level in care processes concerning sexual health with unified and unambiguous terms, concepts, and codes in the EHR. Using the ICF and ICHI can support improvement of individual sexual health care including rehabilitation, and also support follow-up and quality management at local to global level within the domain of sexual health.

Subjects: Rehabilitation Medicine; Sexual and Reproductive Health; Health Informatics and Statistics

Keywords: Sexuality; documentation; classifications; information; health promotion

ABOUT THE AUTHOR

Sexual health is a topic, which is insufficiently addressed in health care. In addition, health care professionals often lack competence and training on how to document issues concerning sexual health. WHO:s health-related classifications can be used to assist health care professionals in promoting and rehabilitating sexual health. This article presents how WHO:s classifications can be used as tools in clinical practice, such as in structured documentation of electronic health records, tools that can be enabling when addressing sexual health. The authors’ field of research is in improving health and welfare, and this article is connected to educational intervention projects to improve health care professionals’ ability to promote and rehabilitate sexual health in their clinical practice. But also, to increase the possibilities to compare data at local as well as global level about sexual health.

PUBLIC INTEREST STATEMENT

This article presents an overview of the usefulness of WHO:s international health-related classifications concerning sexual health in structured electronic health records. Sexual health is a topic, which is insufficiently addressed in health care, which can lead to decreased health. The use of classifications and structured documentation can be a useful tool to assist health care professionals in addressing sexual health in their clinical practice, follow-up and thus promote and rehabilitate sexual health for patients.
1. Introduction
Sexual health care and rehabilitation is an important but often neglected field in health and welfare practice, which may lead to decreased quality of life (Fennell & Grant, 2019; Haesler et al., 2016; Wang et al., 2018). Health care professionals often describe being insufficiently educated and feeling insecure when addressing sexual health in clinical practice (Fennell & Grant, 2019; Wang et al., 2018). In this article, we present how the International Classification of Functioning, Disability and Health (ICF) and the International Classification of Health Interventions (ICHI) can be used together in the health care process as well as in structured documentation in a health information system such as the electronic health record (EHR) to promote sexual health and related care. The background describes earlier research about sexual health, structured documentation of sexual health in clinical practice, WHO—FIC reference classifications, ICF, ICHI, structured digital information in the clinical process, the ICF and the ICHI in the health care process but also purpose, methods, results, discussion and conclusions.

2. Background

2.1. Sexual health
Defining sexual health is complex, due to its biopsychosocial nature (Giami, 2002, 2015). The World Health Organization’s working definition of 2006 describes sexual health as a state of physical, emotional, mental, and social well-being in relation to sexuality and not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination or violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled (World Health Organization, 2006).

The definition is a result of changes in the conception of sexual health from that of procreation within marriage toward a more holistic model of sexual health depending on context (Giami, 2002). The definition of sexual health is also connected to sexual rights through the development of the discourse on human rights, which gave rise to sexual rights (Giami, 2015), since sexual rights are a necessary condition for sexual health (Wagner et al., 2005).

Good general health is positively associated with sexual health regarding level of sexual interest, frequency of sexual activities and sexual satisfaction (Ratner et al., 2011). Sexual health is an important part of general health and well-being, and is often negatively affected by physical and psychological disorders (Field et al., 2013; Lindau & Gavrilova, 2010; Ratner et al., 2011; Wang et al., 2018). Diseases and dysfunction may directly or indirectly, through symptoms, medication, or treatments, affect sexual health negatively. Sexual concerns are prevalent among all genders, and can have significant impacts on mood, quality of life, and self-esteem, as well as causing emotional distress and relational problems (Anastasiadis, Davis, Ghafor, Burchardt & Shabsigh, 2002; Davison et al., 2009; Diamond & Huebner, 2012; Lamont et al., 2012; Moin et al., 2009). Health care professionals are more likely to prioritize biomedical reasons for decreased sexual health than to work with the biopsychosocial model of sexual health (Penwell-Waines et al., 2014). Gender, social context, cultural, and physical differences can also influence how physical and psychological disorders are experienced as affecting sexual health (Atallah et al., 2016).

Consensus guidelines concerning female sexual health declare that health care professionals should have knowledge about sexual behavior and orientation throughout the lifespan (Lamont et al., 2012). Health professionals are recommended to regard identification and management of an individual’s sexual health issues as important and legitimate elements of clinical care regardless of gender (Lamont et al., 2012). Therefore, all health care providers should include screening questions regarding sexual health as a standard of practice, including for chronic patients (Field et al., 2013; Lamont et al., 2012). According to the mentioned guidelines, health care professionals
should also ensure that they have and use the skills and knowledge necessary to assess and manage sexual health problems with a psychosocial approach, and should provide a clinical environment in which patients feel that they can discuss their sexual concerns (Lamont et al., 2012).

From the perspective of the patient, there is research showing that patients with chronic diseases often experience decreased sexual health and neglect of those issues by health professionals (Josefsson & Gard, 2012; Wang et al., 2018). Patients want information and support on enhancing sexual health, but commonly, sexual health interventions (even handing out written information) are lacking. Patients prefer that health professionals take the initiative and are competent and confident in discussing sexual health concerns (Post et al., 2008; Taylor & Davis, 2006; Wittenberg & Gerber, 2009). Health professionals can find the sensitive topic of sexual health to be challenging concerning ethics, which further emphasizes the need for support on how to address this topic in clinical practice (Areskog-Josefsson & Kjellström, 2018).

Sexual health is described by health care professionals as difficult to address in meetings with patients and is therefore often neglected or avoided (Dyer & Das Nair, 2013, 2014; Helland et al., 2013; Quinn et al., 2013; Saunamaki & Engstrom, 2014; Ussher et al., 2013; Wang et al., 2018).

It is important that health professionals understand how sexual health may be affected by various conditions and how to assess, treat, and evaluate treatment effects concerning sexual health, as well as to document information about the procedures in a structured way and using unambiguous terms and concepts as in the classifications.

2.2. Structured documentation of sexual health in clinical practice
Previous research has indicated enabling factors concerning documentation of sexual health issues, such as concerns about sexually transmitted diseases (STI), and genitourinary or abdominal complaints (referent: performance of other health care maintenance and birth control use) (Loeb et al., 2011). Factors negatively associated with documentation were middle to older age, type of insurance, and not having specified marital status (Loeb et al., 2011; Nguyen & Yehia, 2015). Research on patterns of sexual health documentation suggests that sexual health issues are under-reported or incompletely addressed, and that there is a need for a more systematic approach to the assessment of sexual health to promote a fuller discussion of sexual health issues and optimize management (Helmer et al., 2013).

Classifications have the potential to improve and promote assessment, evaluation and documentation in a structured way (Fortune et al., 2018), which can also be of use for sexual health. Classifications of interest are the WHO-FIC reference classifications since they cover the broad biopsychosocial model of sexual health and work well with the WHO working definition of sexual health.

3. WHO—FIC reference classifications
The WHO family of classifications consists of three reference classifications: the International Classification of Diseases and consequences (ICD); the ICF and the ICHI. The ICHI is planned to be approved by WHO during 2021 (World Health Organization, 2020b). These three reference classifications, used together, provide a toolkit to capture information about health condition, functioning and interventions in the care process to support and promote health (Fortune et al., 2018). This article focuses on structured documentation on functioning related to sexual health, and interventions to assess, promote and evaluate sexual health from a biopsychosocial perspective, regardless of health condition; thus, ICD is not discussed further in this article.

3.1. ICF
The ICF is a framework to describe health and health-related states in relation to a biopsychosocial model. “Functioning” is an umbrella term for body functions and structures, activities and
participation. “Disability” is the umbrella term for impairments, activity limitations, and participation restrictions. Contextual factors such as environmental factors and personal factors can influence the functioning of an individual person, and the environmental factors can be both facilitators and barriers. Functioning and disability reflect the result of the interaction between a health condition and environmental and personal factors.

The classification system consists of a hierarchical structure for the following components: body structures (s-codes); body functions (b-codes); activities and participation (d-codes); environmental

| ICF-code | ICF title | ICF definition |
|----------|-----------|----------------|
| b130     | Energy and drive functions | General mental functions of physiological and psychological mechanisms that cause the individual to move towards satisfy specific needs and general goals in a persistent manner |
| b640     | Sexual functions | Mental and physical functions related to the sexual act, including the arousal, preparatory, orgasmic and resolution stages |
| b670     | Sensations associated with genital and reproductive functions | Sensations associated with sexual intercourse, menstruation, and related genital or reproductive functions |
| d570     | Looking after one's health | Indicating or managing actions to ensure one’s physical and mental well-being and to avoid harms to health |
| d5706    | Managing one’s sexual health | Caring for oneself by maintaining or improving sexual activity for physical, emotional, mental and social well-being, such as following safe sex practices (including using condoms) and engaging in satisfactory sexual activity |
| d770     | Engaging in intimate relationship | Creating and maintaining close or romantic relationships between individuals, such as husband and wife, lovers or sexual partners. |
| e115     | Products and technology for personal use in daily living | Equipment, products and technologies used by people in daily activities, including those adapted or specially designed, located in, on or near the person using them. |
| e310     | Support of immediate family | Individuals related by birth, marriage or other relationship recognized by the culture as immediate family, such as spouses, partners, parents, siblings, children, foster parents, adoptive parents and grandparents. |
| e410     | Individual attitudes of immediate family members | General or specific opinions and beliefs of immediate family members about the person or about other matters (e.g., social, political and economic issues), that influence individual behaviour and actions. |
| s630     | Structure of reproductive systems | |
factors (e-codes). Each ICF category is described by an alphanumeric code, title and textual definition (see, for example, in Table 1). The ICF also provides qualifiers as a generic 5-point scale, which is used to rate the person’s severity of problems for each relevant ICF category or to describe the person’s resources. In this way, you can use the ICF to describe a functioning profile of the person with a standardized language. The ICF is used to describe functioning, in goal-setting, to assess needs, and to follow-up results (World Health Organization, 2013).

Personal factors are not included in the classification system, but this information is often necessary to understand the person’s health (World Health Organization, 2001). Examples of personal factors that can be related to sexual health, are sexual behaviors and family and partner violence behaviors, which can be found as targets in the ICHI (World Health Organization, 2020b).

Using the ICF as a framework and a common language improves the communication between health professionals and is useful in structured documentation and in management of care (Finger et al., 2015; Rauch et al., 2010). The ICF and the biopsychosocial model support person-centered care and are useful in collaborative goal-setting between the patient/client and health professionals (Constand & MacDermid, 2014; Finger et al., 2015), which is an important part of person-centered care.

The ICF can be used as a framework to describe sexual health and to describe the functioning, in goal-setting, to assess needs, and to follow-up results regarding sexual health in the care process and in health information system.

3.2. The ICHI
The ICHI provides a broad range of health interventions to be used in different areas. “A health intervention is an act performed for, with, or on behalf of a person or population whose purpose is to assess, improve, maintain, promote or modify health, functioning or health conditions”(World Health Organization, 2020b). The structure of the ICHI is based on three axes (Figure 1), which create the intervention and the stem code for the intervention. The intervention (ICHI stem code) consists of a code (seven characters), title, description, inclusion and exclusion. Additional information can be added to the ICHI stem code by using extension codes (World Health Organization, 2020b).

The three axes are:

1. Target: entity on which the action is carried out
2. Action: a deed done by an actor to a target
3. Means: the processes and methods by which the action is carried out

The Targets for Body functions, Activities and Participation and Environment are based on the ICF. Targets also include anatomical structures and health-related behaviors.

Figure 1. Insert figure here.
ICHI Beta-3 2020 consists of about 7,000 interventions divided into four sections and 27 chapters.

(1) Interventions on Body Systems and Functions (12 chapters)
(2) Interventions on Activities and Participation Domains (nine chapters)
(3) Interventions on the Environment (five chapters)
(4) Interventions on Health-related Behaviors (one chapter).

The health interventions are described by four different grouped Actions: diagnostic actions to be used for investigation and assessment (diagnostic), which can also be used for follow-up, therapeutic actions, managing actions, and preventing actions. The ICHI is available on the ICHI Platform, which also includes ICHI guidelines for users. The ICHI is professionally neutral and can be used to describe planned and performed health interventions (World Health Organization, 2020b) in relation to sexual health in the care process.

3.3. Structured digital information in the clinical process
Quality management and quality improvement are facilitated by using unambiguous terms, concepts, and classifications of structured digital information in the electronic record for the patient in health and social care. ISO 13,940:2015 (International Organization for Standardization, 2015) is a standard with the aim of providing a comprehensive, conceptual basis for content and context in health care services. This standard should be a foundation for interoperability at all levels of health care organizations, but also for developing information systems such as electronic patient records. The concepts in the standard aim to support continuity of care, focusing on clinical processes, but also on reusing information in the clinical processes for other purposes, such as follow-up and management of knowledge, and quality improvement.

This International Standard applies the ICF model of health based on WHO’s declaration of health, namely a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (International Organization for Standardization, 2015). Both health care and social care have the objective of influencing, restoring and maintaining health in the WHO sense. All kinds of interventions that have the possibility to affect any of the included components of the ICF can be part of such care. The need for structured digital information in the EHR is especially important in areas of health and welfare that are often neglected and taboo-related, such as sexual health.

3.4. The ICF and the ICHI in the health care process
The clinical process in ISO 13,940:2016 has the purpose of supporting the continuity of care. The process consists of nine steps:

(1) Perceive a demand for care, due to a health concern
(2) Assess health care investigation needs
(3) Plan investigation activities
(4) Perform investigation activities
(5) Evaluate investigation results
(6) Assess health care treatment needs
(7) Plan treatment activities
(8) Perform treatment activities
(9) Evaluate treatment results

The process starts with the patient reporting a health issue or a demand for care, which can be categorized by using the ICF, the ICD, or the ICHI. The second step “Assess health care investigation needs” includes assessment of the need for investigation. The third step “Plan investigation
activities” includes development of planned investigation activities (Ichi) based on the health issue. The fourth step “Perform investigation activities” includes performing investigation activities (Ichi), which results in information being collected about matters such as described functioning and contextual factors (ICF). In the fifth step “Evaluate investigation results” the information is analyzed and assessed, which results in a described, measured and classified state of functioning (ICF) and maybe a diagnosis (ICD). The sixth step “Assess health care treatment needs” includes goal-setting (ICF) with the patient and a needs assessment of health and social care to achieve the goals. The seventh step “Plan treatment activities” consists of the development of a treatment plan, which includes information about goal(s) (ICF) and therapeutic or preventive intervention(s) (IChI) to achieve the goal(s). The planned therapeutic intervention(s) (IChI) are performed in step eight (Perform treatment activities). The ninth step “Evaluate treatment results” includes using investigation interventions (IChI) for follow-up purposes. These interventions result in collected information about described, measured or assessed functioning and environmental factors (ICF) and about whether the goals (ICF) are achieved or not. If the goal is achieved and the patient and health professionals agree that there is no further need for health care activities (IChI), the clinical process can be ended. If there is more need for health care, the process continues to the step “Assess health care investigation needs” and the process restarts (Almborg & Lundmark, 2019).

Purpose

The purpose of this article is to describe subsets of the ICF and the IChI, which can be used as frameworks in practice and in structured digital documentation relating to sexual health in the clinical process based on ISO 13,940:2015 as an international standard.

4. Methods

Using experience from practice and research to identify relevant information in the health care process related to sexual health, which are coded by using ICF and IChI. Experiences from practice come from the researchers’ clinical work experience in rehabilitation and care, and experiences from using structured documentation based on international and national classifications in the care process.

5. Results

The results are presented first by a description of how to describe sexual health with the ICF and secondly to describe interventions to assess, promote and evaluate sexual health with IChI and the thirdly how ICF and IChI can be used in the health care process.

5.1. To describe sexual health with the ICF

The biopsychosocial model of sexual health corresponds well with the components included in the ICF; body functions and structures, activities and participation, environmental factors and personal factors. Sexual health can therefore be described by several ICF categories which correspond to the person’s needs in this field (Table 1).

Personal factors, such as health-related behaviors, are described as a component of the biopsychosocial model, but are not included in the classification. In relation to sexual health, the following two health-related behaviors from the Target list in the IChI can be relevant to use:

(1) Sexual behaviors, defined as ‘Behavior concerning sexual activity and sexual relationships.
(2) Family and partner violent behaviors, defined as behavior relating to the intentional use of physical force or power, threatened or actual, against another person, mainly between family members and intimate partners (World Health Organization, 2020b)
“Managing one’s sexual health” (d5706) with the definition “Caring for oneself by maintaining or improving sexual activity for physical, emotional, mental and social well-being, such as following safe sex practices (including using condoms) and engaging in satisfactory sexual activity” has been approved and implemented in ICF 2021 as a specific ICF subcategory to d570 Looking after one’s health (World Health Organization, 2021).

Table 2. Examples of relevant ICHI codes targeting sexual function and intimate relationships

| ICHI code   | ICHI title                                         | ICHI description                                                                                                                                 |
|-------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| NUA.AA.ZZ   | Assessment of sexual function                     | Evaluating mental and physical functions related to the sexual act, including the arousal, preparatory, orgasmic and resolution stages—to describe functioning, or establish a diagnosis, or identify need for appropriate intervention(s) |
| NUA.PH.ZZ   | Training for sexual function                      | Teaching, enhancing or developing skills of mental and physical functions related to the sexual act, including the arousal, preparatory, orgasmic and resolution stages |
| NUA.PM.ZZ   | Education about sexual function                   | Providing information to improve knowledge about mental and physical functions related to the sexual act, including the arousal, preparatory, orgasmic and resolution stages |
| NUA.PH.ZZ   | Advising about sexual function                    | Providing advice to encourage a change of or to maintain mental and physical functions related to the sexual act, including the arousal, preparatory, orgasmic and resolution stages in relation to health (or risks) |
| NUA.PP.ZZ   | Counseling for sexual function                    | Providing therapeutic and/or supportive communication in relation to changing the mental and physical functions related to the sexual act, including the arousal, preparatory, orgasmic and resolution stages |
| NUA.PQ.ZZ   | Psychotherapy for sexual function                 | Providing therapeutic communication, based upon the systematic application of psychological theory, in relation to mental and physical functions related to the sexual act, including the arousal, preparatory, orgasmic and resolution stages |
| SSM.AA.ZZ   | Assessment of interpersonal interactions in intimate relationships | Evaluating the ability to create and maintain close or romantic relationships between individuals in a contextually and socially appropriate manner—to describe functioning, or establish a diagnosis, or identify a need for appropriate intervention(s) |

(Continued)
| ICHI code   | ICHI title                                      | ICHI description                                                                                                                                 |
|------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| SSM.AC.ZZ  | Test of engaging in intimate relationships     | Using a questionnaire, rating scale or other instrument to test the ability to create and maintain close or romantic relationships between individuals in a contextually and socially appropriate manner |
| SSM.PM.ZZ  | Education about engaging in intimate relationships | Providing information to improve knowledge about creating and maintaining close or romantic relationships between individuals                          |
| SSM.PN.ZZ  | Advising about engaging in intimate relationships | Providing advice to encourage a change of or to maintain the ability to create and maintain close or romantic relationships between individuals in relation to health (or risks) |
| SSM.PP.ZZ  | Counseling for intimate relationships          | Providing therapeutic and/or supportive communication in relation to changing the ability to create and maintain close or romantic relationships between individuals |
| SSM.PQ.ZZ  | Psychotherapy for intimate relationships       | Providing therapeutic communication, based upon the systematic application of psychological theory, in relation to the ability to create and maintain close or romantic relationships between individuals |
| SSM.RC.ZZ  | Emotional support for intimate relationships    | Providing comfort, empathy or motivational support to the person in relation to creating and maintaining close or romantic relationships between individuals |

5.2. To describe health interventions in relation to sexual health with the ICHI
In the process of investigation, treatment and evaluation, several ICHI interventions targeting relevant body functions, activities and participation, environment and health-related behaviors can be used (Table 2).

5.3. Using of ICF and ICHI in the health care process for sexual health problems
Examples of using a subset of ICF and ICHI in structured documentation at different steps in the care process can be described as in Table 3. In this example, we also show the use of the qualifiers of ICF to describe the level of functioning.

Sexual health is a complex area and the codes related to sexual health should be viewed from the perspective of the individual’s functioning. The results present codes useful to describe sexual health issues in the health care process. However, in clinical practice, the information coded by using the classifications in structured documentation will also need to cover other aspects, in addition to the codes relating directly to sexual health, such as, for example, engaging in conversation, physical endurance, and pain. To find codes relevant for each individual, there is a need for a biopsychosocial perspective to describe individual needs. The classification encompasses important aspects of sexual health and can thus be useful in ensuring the topic being addressed if they are used in a structured way. This article provides a guide on how to use the classifications concerning sexual health and thus promotes health professionals to address and document sexual health and decrease avoidance of the topic.
Table 3. Examples of ICF and ICHI at different steps in the care process

| Step | Step in the care process | Example of ICF-categories with qualifiers | Example of interventions (ICHI-codes) |
|------|--------------------------|------------------------------------------|----------------------------------------|
| 1    | Perceive a demand for care, due to a health concern | Difficulties with engaging in intimate relationship (d770.8) |                                        |
| 2    | Assess health care investigation needs |                                        |                                        |
| 3 + 4 + 5 | Plan and perform investigation activities and evaluate investigation results | Functioning; Severe difficulties in engaging in intimate relationships (d770.3) Moderate difficulties with managing one’s sexual health (d5706.2) No problems with sensations associated with genital and reproductive functions (b670.0) | Planned/Performed interventions: Test of engaging in intimate relationships (SSM.AC.ZZ) Assessment of looking after one’s health (SMH.AA.ZZ) Assessment of sensations associated with genital and reproductive functions (NUK.AA.ZZ) |
| 6 + 7 + 8 | Assess health care treatment needs and plan, perform treatment activities | Goal: Mild difficulties with engaging in intimate relationships (d770.1) Mild difficulties with managing one’s sexual health (d5706.1) | Planned/Performed interventions: Psychotherapy for engaging in intimate relationships (SSM.PQ.ZZ) Advising about looking after one’s health (SMH.PN.ZZ) |
| 9    | Evaluate treatment results | Functioning at follow-up: Moderate difficulties in engaging in intimate relationships (d770.2) Mild difficulties with managing one’s sexual health (d5706.1) Goal achievement: Engaging in intimate relationships (d770)—goal partly achieved Managing one’s sexual health (d5706)—goal achieved | Planned/Performed interventions: Test of engaging in intimate relationships (SSM.AC.ZZ) Assessment of looking after one’s health (SMH.AA.ZZ) |

6. Discussion

Both the ICF and the ICHI have been created to be useful for professions in general, not for a specific profession, thus using the classifications for structured communication increases the use of a common language among various professionals. The classifications also support comparisons of functioning, health, and interventions from local to global level; ICF and the ICHI together provide a broad and relevant basis to describe and record information related to sexual health in clinical practice. A way to gain additional value from using the ICF and the ICHI is to use these two classifications in the digital structured documentation of electronic health records (EHR) in relation to sexual health. These classifications are a valuable tool for use in practice but also in research and policy. The inclusion of the classifications in the EHR facilitates sexual health prevention and promotion initiatives by the ability to evaluate on group level. A systematic review of literature regarding the use of the ICF in different applications shows the ICF’s contribution to research about functioning and disability in different areas (Cerniauskaitė et al., 2011; Jelsma, 2009; Madden & Bundy, 2018). There is also evidence that the ICF changes ways of thinking and is used in new applications for measurement and statistics (Madden & Bundy, 2018).

Page 10 of 14
Considering sexual health being a topic often described as difficult to communicate about in health care support in how to address this topic in practice is essential (Areskoug-Josefsson & Gard, 2015; Dyer & Das Nair, 2013; Gott, 2004). At an individual level, it is important to be able to describe the patient’s issues, to investigate and measure functioning and the needs for interventions to achieve the goals, and to evaluate the outcome of the interventions. The use of practical examples for relevant cases in practice can support professionals to include sexual health in the care process. A part of the co-creative process with the patient is goal-setting and evaluation, but also interventions should be the result of shared decision-making with the patient. Earlier research has shown that using the ICF in goal-setting increases and supports the collaboration between the patient and health professionals in goal-setting (Constand & MacDermid, 2014). Goal-setting is an important part of person-centered care (Van Dulmen et al., 2015). In the digital structured documentation, the professionals need unified and unambiguous terms and concepts to avoid misunderstanding the information and to ensure patient safety. The classifications are useful in the EHR as information carriers between professionals and for sharing information between different caregivers and for follow-up at the group level (Fortune et al., 2018).

Structured documentation of sexual health can be considered an issue of patient safety, since structured documentation seems to be lacking in the field of sexual health (Helmer et al., 2013). Without documentation, there is a risk of the patient’s needs not being met and interventions being insufficiently evaluated.

The ICF can be used as framework to support a more holistic view of health (including sexual health), for example, by including environmental factors. Do patients have support from the environment as needed or are there barriers that need to be reflected or acted upon? The ICHI can be used in the health care process to describe interventions in relation to sexual health. The ICF includes, since 2021, a specific ICF category d5706, ‘Managing one’s sexual health’. This new ICF-category could enable more specified documentation regarding sexual health (World Health Organization, 2001, 2020a). Together, the use of the ICF and the ICHI will improve the possibilities to record information about sexual health in the clinical process. The ICF can be used to describe functioning, in goal-setting, and for evaluating intervention outcomes and the achievement of goals at the individual level (Fortune et al., 2018; World Health Organization, 2013). If interventions related to sexual health are included in the ICHI it gives an opportunity to describe, report and collect interventions in this area from local to global level. Structured information about functioning and interventions can also be used to describe good health and well-being (Goal 3) according to Agenda 2030, both at national as well as global level (United Nations, 2015).

As seen in the descriptions of the ICF and the ICHI, there are several codes that are relevant and useful for structured documentation of sexual health in clinical practice. The broad inclusion of the biopsychosocial perspectives of sexual health ensures the usefulness of the classifications for professionals in various contexts, and this breadth promotes person-centered care. The described ICF categories and ICHI interventions in this paper represent the first draft of subsets and can be used in digital structured documentation in relation to sexual health. This first draft of subsets needs further development, and this can be done when professionals are using the ICF in practice. However, there is also room for improvement in the classifications, as the proposed updates indicate (World Health Organization, 2020a, 2021). To further enhance the process of ensuring the usefulness of the ICF and the ICHI for structured documentation concerning sexual health, it is important that the classifications are used in practice in various contexts and evaluated to improve the application.

The present lack of research in the field of documentation of sexual health, as well as the reporting of outcomes on group level from clinical practice in this field, suggests the use of the ICF and the ICHI to improve data in relation to sexual health.
The current presentation should be further explored and validated in clinical settings in various contexts. The classifications are regularly being updated, and it is possible to propose suggestions for improvement to WHO for upcoming updates to cover needed areas of clinical practice. The results of this study are limited to the current research on sexual health, and future research in the field is likely to lead proposed additional content of the classifications.

7. Conclusion
The ICF and ICHI are valuable tools in the health care process to identify and describe issues related to sexual health care and rehabilitation. Structured documentation by using the ICF and the ICHI potentially decreases the risk of neglecting important aspects of sexual health, promoting a holistic biopsychosocial perspective of sexual health, thus promoting the sexual health of the individual. Structured documentation with classifications can also be used as a tool for quality improvement since it entails following up outcomes at the group level, which can be used for comparisons at the local to global level.

Funding
The authors received no direct funding for this research.

Author details
K Areskoug Josefsson1,2
E-mail: kristina.areskoug-josefsson@ju.se
A-H Almborg1,3,4

1 School of Health and Welfare, Jönköping Academy for Improvement of Health and Welfare, Jönköping University, Jönköping, Sweden.
2 Department of Behavioural Sciences, Faculty of Health Sciences, Oslo Metropolitan University, Oslo, Norway.
3 Department of Register and Statistics, National Board of Health and Welfare, Stockholm, Sweden.
4 Department of Classifications and Terminology in Healthcare, Norwegian Directorate of E-health, Nordic WHO-FIC CC, Oslo, Norway.

Citation information
Cite this article as: Using ICF and ICHI to promote sexual health, K Areskoug Josefsson & A-H Almborg, Cogent Medicine (2021), 8: 1898084.

References
Almborg, A.-H., & Lundmark, T. (2019). Using WHO’s reference classifications together in Contsys. Poster presented at the Annual meeting WHO-IFIC Network, Banff, Canada.
Anastasiadis, A. G., Davis, A. R., Ghafor, M. A., Burchardt, M., & Shabsigh, R. (2002). The epidemiology and definition of female sexual disorders. World Journal of Urology, 21(2), 74–78. https://doi.org/10.1007/s00345-002-0272-5
Areskoug-Josefsson, K., & Gård, G. (2015). Physiotherapy as a promoter of sexual health. Physiotherapy Theory and Practice, 31(6), 390–395. https://doi.org/10.3109/09593985.2015.1023876
Areskoug-Josefsson, K., & Kjellström, S. (2018). Ethics and sexual health: Exploration of the ethical code of conduct for physiotherapists concerning sexual health in clinical practice. Physiotherapy Theory and Practice, 35(11), 1015–1026. https://doi.org/10.1080/09593985.2018.1470209
Atallah, S., Johnson-Agbokwu, C., Rosenbaum, T., Abdo, C., Byers, E. S., Graham, C., Nobre, P., Wylie, K., & Brotto, L. (2016). Ethical and Sociocultural Aspects of Sexual Function and Dysfunction in Both Sexes. The Journal of Sexual Medicine, 13(4), 591–606. https://doi.org/10.1016/j.jsxm.2016.01.021
Cernianskaite, M., Quintas, R., Boldt, C., Roggi, A., Ciez,a, A., Bickenbach, J. E., & Leonardi, M. (2011). Systematic literature review on ICF from 2001 to 2009: Its use, implementation and operationalisation. Disability and Rehabilitation, 33(4), 281–309. https://doi.org/10.3109/09638288.2010.529235
Constand, M. K., & MacDermid, J. C. (2014). Applications of the International Classification of Functioning, Disability and Health in goal-setting practices in healthcare. Disability and Rehabilitation, 36(15), 1305–1314. https://doi.org/10.3109/09638288.2013.845256
Davison, S. L., Bell, R. J., LeChina, M., Holden, S. L., & Davis, S. R. (2009). ORIGINAL RESEARCH—PSYCHOLOGY: The relationship between Self-Reported Sexual Satisfaction and General Well-Being in Women. The Journal of Sexual Medicine, 6(10), 2690–2697. https://doi.org/10.1111/j.1743-6109.2009.01406.x
Diamond, L. M., & Huebner, D. M. (2012). Is Good Sex Good for You? Rethinking Sexuality and Health. Social and Personality Psychology Compass, 6(1), 54–69. https://doi.org/10.1111/j.1751-9004.2010.00408.x
Dyer, K., & Das Noir, R. (2013). Why Don’t Healthcare Professionals Talk About Sex? A Systematic Review of Recent Qualitative Studies Conducted in the United Kingdom. The Journal of Sexual Medicine, 10(11), 2658–2670. https://doi.org/10.1016/j.jsm.2012.02856.x
Dyer, K., & Das Noir, R. (2014). Talking about sex after traumatic brain injury: Perceptions and experiences of multidisciplinary rehabilitation professionals. Disability and Rehabilitation, 36(17), 1431–1438. https://doi.org/10.3109/09638288.2013.859747
Fennell, R., & Grant, B. (2019). Discussing sexuality in health care: A systematic review. Journal of Clinical Nursing, 28(17–18), 3065–3076. https://doi.org/10.1111/jocn.14900
Field, N., Mercer, C. H., Sannenberg, P., Tanton, C., Clifton, S., Mitchell, K. R., Erens, B., Macdowall, W., Wu, F., Davo, J., Jones, K. G., Stevens, A., Proh, P., Copas, A. J., Phelps, A., Wellings, K., & Johnson, A. M. (2013). Associations between health and sexual lifestyles in Britain: Findings from the third National Survey of Sexual Attitudes and Lifestyles (Natsal-3). The Lancet, 382(9907), 1830–1844. https://doi.org/10.1016/S0140-6736(13)62222-9
Finger, M. E., Selb, M., De Bie, R., & Escorpizo, R. (2015). Using the International Classification of Functioning, Disability and Health in Physiotherapy in Multidisciplinary Vocational Rehabilitation: A Case Study of Low Back Pain. Physiotherapy Research International, 20(4), 231–241. https://doi.org/10.1002/pri.1587
Fortune, N., Madden, R., & Almborg, A.-H. (2018). Use of a New International Classification of Health Interventions for Capturing Information on Health Interventions Relevant to People with Disabilities. *International Journal of Environmental Research and Public Health*, 15(1), 165. https://doi.org/10.3390/ijerph15010165

Gianni, A. (2002). Sexual health: The emergence, development, and diversity of a concept. *Annual Review of Sex Research*, 13(1), 1–35. https://doi.org/10.1080/10532528.2002.10559801

Gianni, A. (2013). Sexuality, health and human rights: The invention of sexual rights. *Sexologies*, 24(3), e45–e53. http://dx.doi.org/10.1016/j.sexol.2013.07.002

Gott, M. (2004). “Opening a can of worms”: GP and practice nurse barri erers to talking about sexual health in primary care. *Family Practice*, 21(5), 528–536. https://doi.org/10.1093/fampra/cmh509

Hoelscher, E., Bauer, M., & Fetherstonhaugh, D. (2016). Sexuality, sexual health and older people: A systematic review of research on the knowledge and attitudes of health professionals. *Nurse Education Today*, 40(May 2016), 57–71. https://doi.org/10.1016/j.nedt.2016.02.012

Holland, V., Garratt, A., Kjeken, I., Kven, T., & Dagfinrud, H. (2013). Current practice and barriers to the management of sexual issues in rheumatology: Results of a survey of health professionals. *Scandinavian Journal of Rheumatology*, 42(1), 20–26. https://doi.org/10.3109/03009742.2012.709274

Helmer, D. A., Beaulieu, G. R., Houlette, C., Latini, D., Goltz, H. H., Etienne, S., & Kauth, M. (2013). Assessment and Documentation of Sexual Health Issues of Recent Combat Veterans Seeking VHA Care. *The Journal of Sexual Medicine*, 10(4), 1065–1073. https://doi.org/10.1111/j.1193-1850.2013.02763.x

International Organization for Standardization. (2015). Health informatics – System of concepts to support continuity of care. ISO/TR 13940:2015.

Jelsma, J. (2009). Use of the International Classification of Functioning, Disability and Health: A literature survey. *Journal of Rehabilitation Medicine*, 41(1), 1–12. https://doi.org/10.2340/16501977-0300

Josefsson, K. A., & Gard, G. (2012). Sexual health in patients with rheumatoid arthritis: Experiences, needs and communication with health care professionals. *Musculoskeletal Care*, 10(2), 76–89. https://doi.org/10.1002/msc.1002

Lamont, J., Bajzar, K., Bouchard, C., Burnett, M., Byers, S., Cohen, T., Fisher, W., Holzapfel, S., & Senikas, V. (2012). Female sexual health consensus clinical guidelines. *Journal of Obstetrics and Gynaecology Canada*, 34(8), 769–775. https://doi.org/10.1016/j.jogc.2011.05.007

Lindau, S. T., & Gavrilova, N. (2010). Sex, health, and years of sexually active life gained due to good health: Evidence from two US population based cross sectional surveys of ageing. *BMJ*, 340(mar09 2), c810. https://doi.org/10.1136/bmj.c810

Loeb, D. F., Lee, R. S., Binswanger, I. A., Ellison, M. C., & Aagaard, E. M. (2011). Patient, resident physician, and visit factors associated with documentation of sexual history in the outpatient setting. *Journal of General Internal Medicine*, 26(8), 887–893. https://doi.org/10.1007/s11606-011-1711-z

Madden, R. H., & Bundy, A. (2019). The ICF has made a difference to functioning and disability measurement: Report and statistics. *Disability and Rehabilitation*, 41(12), 1450–1462. https://doi.org/10.1080/09638288.2018.1431812

Moin, V., Duvdevany, I., & Mazor, D. (2009). Sexual Identity, Body Image and Life Satisfaction Among Women With and Without Physical Disability. *Sexuality and Disability*, 27(2), 83–95. https://doi.org/10.1007/s11195-009-9112-5

United Nations. (2015). Transforming our world: The 2030 Agenda for Sustainable Development. Department of Economic and Social Affairs

Nguyen, G. T., & Yehia, B. R. (2015). Documentation of Sexual Partner Gender Is Low in Electronic Health Records: Observations, Predictors, and Recommendations to Improve Population Health Management in Primary Care. *Population Health Management*, 18(3), 217–222. https://doi.org/10.1089/pop.2014.0075

Penwell-Waines, L., Wilson, C. K., Macapagal, K. R., Volvano, A. K., Waller, J. L., West, L. M., & Stepleman, L. M. (2014). Student perspectives on sexual health: Implications for interprofessional education. *Journal of Interprofessional Care*, 28(4), 317–322. https://doi.org/10.3109/13561820.2014.884553

Post, M. W. M., Gianotti, W. L., Heijnen, L., Lamberts, E. J. H. R., & Willems, M. (2008). Sexological competence of different rehabilitation disciplines and effects of supervision and auxiliary training. *Sexuality and Disability*, 26(1), 3–14. https://doi.org/10.1007/s11195-007-9068-2

Quinn, C., Hoppell, B., & Welch, A. (2013). Talking about sex as part of our role: Making and sustaining practice change. *International Journal of Mental Health Nursing*, 22(3), 231–240. https://doi.org/10.1111/j.1447-0399.2012.00865.x

Ratner, E. S., Erekson, E. A., Minkin, M. J., & Foran-Tuller, K. A. (2011). Sexual satisfaction in the elderly female population: A special focus on women with gynecologic pathology. *Maturitas*, 70(3), 210–215. https://doi.org/10.1016/j.maturitas.2011.07.015

Rauch, A., Escorpió, R., Riddle, D. L., Eriks-Hoogland, I., Stucki, G., & Cieza, A. (2010). Using a Case Report of a Patient With Spinal Cord Injury to Illustrate the Application of the International Classification of Functioning, Disability and Health During Multidisciplinary Patient Management. *Physical Therapy*, 90(7), 1039–1052. https://doi.org/10.2522/ptj.20090327

Saunamaki, N., & Engstrom, M. (2014). Registered nurses’ reflections on discussing sexuality with patients: Responsibilities, doubts and fears. *Journal of Clinical Nursing*, 23(3–4), 531–540. https://doi.org/10.1111/jocn.12515

Taylor, B., & Davis, S. (2006). Using the extended PLISSIT model to address sexual healthcare needs. *Nursing Standard*, 21(11), 35–40. https://doi.org/10.7748/ns.21.11.35.s2

Ussher, J. M., Perz, J., Gilbert, E., Wong, W. K., Mason, C., Hobbs, K., & Kirsten, L. (2013). Talking about sex after cancer: A discourse analytic study of health care professional accounts of sexual communication with patients. *Psychology & Health*, 28(12), 1370–1390. https://doi.org/10.1080/08870446.2013.811242

Van Dulmen, S. A., Lukersmith, S., Muxlow, J., Mina, E. S., Nijhuis-van Der Sanden, M. W. G., & Van Der Wees, P. J. (2013). Supporting a person-centred approach in clinical guidelines. A position paper of the Allied Health Community - Guidelines International Network (G-I-N). *Health Expectations*, 18(5), 1543–1558. https://doi.org/10.1111/hex.12144

Wagner, G., Bondil, P., Dubees, K., Dean, J., Fournier, J., Ginell, C., Kingsberg, S., Kothari, P., Rubio-Aurioles, E., Ugarte, F., & Navarrete, R. V. (2005). Ethical Aspects of Sexual Medicine. *The Journal of Sexual Medicine*, 2(2), 163–168. https://doi.org/10.1111/j.1743-6109.2005.20225.x
Wang, K., Ariello, K., Choi, M., Turner, A., Wan, B. A., Yee, C., Rowbottom, L., Macdonald, R., Lam, H., Drost, L., & Chow, E. (2018). Sexual healthcare for cancer patients receiving palliative care: A narrative review. Annals of Palliative Medicine, 7(2), 256–264. https://doi.org/10.21037/apm.2017.10.05

Wittenberg, A., & Gerber, J. (2009). ORIGINAL RESEARCH—EDUCATION: Recommendations for Improving Sexual Health Curricula in Medical Schools: Results from a Two-Arm Study Collecting Data from Patients and Medical Students. The Journal of Sexual Medicine, 6(2), 362–368. https://doi.org/10.1111/j.1743-6109.2008.01046.x

World Health Organization. (2001). International Classification of Functioning, Disability and Health (ICF). WHO.

World Health Organization. (2006). Defining sexual health. Report of a technical consultation on sexual health. Retrieved from WHO

World Health Organization. (2013). How to Use the ICF: A Practical Manual for Using the International Classification of Functioning, Disability and Health (ICF), Exposure Draft for Comment. WHO.

World Health Organization. (2020a). ICF Browser. World Health Organization. http://apps.who.int/classifications/icfbrowser/

World Health Organization. (2020b). International Classification of Health Interventions Beta-3 2020. World Health Organization. https://mitel.dimi.uniud.it/ichi/

World Health Organization. (2021). ICF Update Platform. World Health Organization. https://extranet.who.int/icfrevision/nr/loginICF.aspx

© 2021 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

You are free to:
Share — copy and redistribute the material in any medium or format.
Adapt — remix, transform, and build upon the material for any purpose, even commercially.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:
Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made.
You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

No additional restrictions
You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Cogent Medicine (ISSN: 2331-205X) is published by Cogent OA, part of Taylor & Francis Group.

Publishing with Cogent OA ensures:
• Immediate, universal access to your article on publication
• High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
• Download and citation statistics for your article
• Rapid online publication
• Input from, and dialog with, expert editors and editorial boards
• Retention of full copyright of your article
• Guaranteed legacy preservation of your article
• Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com