Nursing interventions in inpatient psychiatry



F. FRAUENFELDER 1 MNSC RN, M. MÜLLER-STAUB 2 PhD MNSC Edn RN, I. NEEDHAM 3 PhD MNSC RN & T. van ACHTERBERG 4 PhD RN

¹Head of Research and Development, Psychiatric University Hospital Zürich, Directorate of Nursing, Therapies and Social Work, Zürich, ²Professor of Nursing Science, ZHAW University, CH- 8401 Winterthur & Pflege PBS (Projects, Consulting, Research), Bronschhofen, Switzerland, ³Nursing Scientist, Psychiatric University Hospital Zürich, Directorate of Nursing, Therapies and Social Work, Zürich, and ⁴Professor of Nursing Science, Radboud University Nijmegen Medical Centre, Scientific Institute for Quality of Health Care, Nijmegen, The Netherlands

Keywords: adult inpatient psychiatric nursing care, journal articles, nursing classifications, nursing interventions, Nursing Interventions Classification (NIC), qualitative content analysis

Correspondence:
F. Frauenfelder
Psychiatric University Hospital Zürich
Department of Research and
Development
CH-8032 Zürich
Switzerland

Accepted for publication: 7 January 2013

doi: 10.1111/jpm.12040

Accessible summary

- The use of a standardized nursing language enhances nursing quality. The Nursing Interventions Classification (NIC) considers any treatment by nurses that improve patient outcomes.
- The present study identifies nursing interventions in journal articles on adult psychiatric inpatient nursing care. These interventions are compared with the NIC entries to elucidate how well this classification covers the realities of nursing in inpatient psychiatric settings.
- The NIC encompasses most interventions mentioned in the articles. Only a few interventions need to be added to the NIC classification or require a reorganization of the taxonomy.

Abstract

The successful application of the Nursing Interventions Classification (NIC) in inpatient psychiatry depends on whether the classification adequately describes nursing care in this setting. The present study aimed to identify nursing interventions mentioned in journal articles on psychiatric inpatient nursing care and to compare these with the labels, definitions and activities described in the NIC to elucidate how well the classification covers these interventions. The MedLine, PsychInfo, Cochrane and CINAHL databases were searched for journal articles about nursing care in the adult inpatient setting. A qualitative content analysis approach was used to indentify nursing interventions in the articles. About 84% of the statements (terms and definitions) are encompassed by the interventions listed by the NIC. Very few interventions need to be added to the NIC classification or necessitate a reorganization of the taxonomy. Nevertheless, the further development of the NIC will promote its use in the daily work of psychiatric nurses and enhance the quality of nursing care in the inpatient setting.

Introduction

The inpatient setting is only one part of the mental health-care system, but clearly an important one (Aiyegbusi & Norton 2009). The following four reasons justify admission to an inpatient ward: the patient or relatives are unable to perform daily self-care and need help at different times during the day; the patient is in an acute personal

crisis and needs services around the clock; the situation of the patient requires compulsory measures or special treatments, which can only be administered in an inpatient facility, and the patient or relatives need a temporary change of setting (Sauter *et al.* 2011). The nursing service provides 'around the clock service' in a safe and structured environment for this group of patients (Jordan Halter 2009), which includes three main aspects: caring,

attending, and patient advocacy (Varcarolis 2009). The nurse interacts with patients and assists them to (1) resolve the mental, emotional and dysfunctional aspects of life crises; (2) manage and alleviate or ease painful symptoms of mental disorders; (3) improve overall functions; and (4) decrease the personal and social consequences of mental illness, including the stigma attached to mental disorders (Holoday Worret 2008).

As part of the professionalization of nursing care, there are ongoing efforts to document inpatient psychiatric nursing care with standardized languages. Documentation with standardized nursing languages enhances the continuity of care and improves analyses, which support unit, organizational and national policy decisions to ensure quality and effectiveness (Keenan & Yakel 2005, Müller-Staub et al. 2007, 2008, Keenan et al. 2008). Just et al. (2005) recommend the use of the Nursing Interventions Classification (NIC) for the documentation of nursing interventions within a standardized documentation structure and, additionally, of the International Nursing Diagnoses Association (NANDA-I) nursing diagnoses classification and of the Nursing Outcomes Classification (NOC).

The successful application of the NIC depends on whether the classification adequately describes the reality of daily nursing care. Wallace *et al.* (2005) coded nursing interventions in the field of community mental health care to NIC. This study showed that the NIC interventions *Case Management*, *Complex Relationship Building*, *Medication Management* and *Surveillance* are the most found interventions although NIC may not completely code nursing practice in the community setting. No references were found in the literature to the suitability of the NIC to adult inpatient nursing care. Therefore, as a first step, the present literature review considered this setting.

Background

The NIC is a comprehensive nursing classification that captures interventions performed by all nurses. The classification is research based as well as field tested, linked to other classifications (e.g. NANDA-I, NOC, Omaha System Problems) and translated into several languages (Bulechek *et al.* 2008).

The NIC includes three taxonomic levels: domains (n = 7), classes (n = 30) and interventions (n = 542). The core of the NIC is the concept of interventions. A nursing intervention is 'any treatment, based upon clinical judgment and knowledge that a nurse performs to enhance patient/client outcomes' (Bulechek et al. 2008) encompassing direct and indirect patient care. Interventions may be aimed at individuals, families or the community and initiated

by nurses, physicians and other healthcare providers (Bulechek et al. 2008). Every intervention has a label name, a definition and a list of activities describing specific behaviours or actions in practical nursing work. Several activities are necessary to create and implement an intervention. Contrary to interventions, activities are not standardized. To implement an intervention, the corresponding activities have to be selected and, if necessary, modified or complemented with further activities to meet the needs of patients, families or communities as well as to individualize care (Bulechek et al. 2008). With regard to the same intervention, the number of listed activities as well as the combination of activities can vary from patient to patient. It is essential that the modification or addition of activities is congruent with the corresponding definition of the intervention (Bulechek et al. 2008).

Research questions

The present study identified nursing actions described in journal articles in adult inpatient psychiatry. The nursing actions found in the literature were then assigned to the standardized nursing interventions of the NIC. The following two research questions were formulated:

- What nursing interventions are described in publications in adult inpatient psychiatry?
- Which nursing interventions identified in the publications have already been described and included in the labels and definitions of the nursing interventions of the classification of NIC?

Method

Search strategy

The systematic search for articles published in nursing journals included articles meeting the following inclusion criteria:

- listed in the databases MedLine, PsychInfo, Cochrane or CINAHL;
- published between 1993 and 2008;
- published in English or German;
- addressed to psychiatric nursing or mental health nursing;
- pertaining to an inpatient setting;
- pertaining to patients with a mental illness/mental disorder aged 18–65 years;
- published in nursing journals or journals that explicitly address mental health nursing.

To identify the setting of the articles the following search terms were used: psychiatry' OR 'mental health care' AND 'inpatient'. To focus on articles addressing nursing practice, the terms above were linked with the following search terms combined in various ways and, if relevant, in singular and plural forms: 'nursing', 'care', 'caring', 'nursing interventions, 'nursing action', 'nursing activity', 'nursing concept' 'nursing phenomena', 'actual health problem', 'potential health problem', 'actual health problem', 'chronic health problem', 'actual life process', 'potential life process', 'life process', 'clinical judgment', 'behavior', 'perception', 'clinical judgment'. The search was terminated when no new articles were found.

Methodology and data analysis

The articles identified were analysed by using a qualitative content analysis approach. This approach is suitable for analyzing and categorizing data sets from any kind of communication according to empirical or theoretical criteria (Mayring 2010). The content analysis focused on issues related to the NIC definition of nursing intervention: 'Any treatment, based upon clinical judgment and knowledge that a nurse performs to enhance patient/client outcomes' (Bulechek et al. 2008).

Initially, the first author read and reread the articles. Passages mentioning nursing actions accomplished by nurses were identified. Second, the first author isolated each individual action and created a list of terms regarding the contexts, aims and intentions of the actions. Further, text passages specifying the actions were also isolated and added to the corresponding term. The listed actions feature two levels of abstraction: actions on the abstraction level of the standardized NIC interventions describing treatment performed by nurses and actions on the level of NIC activities describing a specific behaviour or intervention.

In a next step, the author compared the actions extracted from the articles with those in the NIC: actions at the abstraction level of interventions were assigned to interventions defined by the NIC; actions on the abstraction level of activities were assigned to the list of activities of corresponding NIC interventions considering the contexts, aims and intentions described in the text. These interventions were also added to the list of interventions found on the abstraction level of interventions.

In about one-third of the isolated actions, it was not possible to assign a distinct mapping or there was a lack of an appropriate NIC intervention. For each action of this type, the first, second and third author suggested, independently of each other, an allocation to an existing or a newly created intervention. Further, the authors discussed their resulting lists term by term until a consensus was reached – again taking contexts, aims, definitions and intentions into consideration.

Results

The initial search generated 484 abstracts. After a first review, 408 abstracts were excluded because they did not meet the inclusion criteria: most of the articles did not address inpatient settings and/or psychiatric/mental health nursing. The remaining 76 articles were studied in detail; 31 papers included statements of nursing actions; 15 publications presented qualitative surveys, nine reported quantitative studies and three a combination of both approaches. Additionally, two papers were literature reviews, one a discussion paper including vignettes and one a description of an instrument. Table 1 presents details on the articles including research questions and sample sizes. The most frequent sources of studies were Sweden (nine) and the UK (eight).

Statements listed in the NIC

The articles included 111 statements (terms, definitions) that could be allocated to 45 different NIC interventions, which represented 16 of 30 NIC classes and all seven NIC domains. Table 2 lists these terms and descriptions found in the articles, as well as their assignment to the corresponding NIC interventions, classes and domains. Some interventions were listed in several NIC domains or classes, resulting in differences between the numbers of identified statements in the studies and the interventions contained in NIC domains and classes.

Domains

Most interventions were reflected in the domains 'Safety: Care that supports protection against harm' (n: 44), 'Behavioural: Care that supports psychosocial functioning and facilitates lifestyle changes' (n: 37) and 'Health System: Care that supports effective use of the healthcare delivery system' (n: 24). The domains 'Physiological: Complex: Care that supports homeostatic regulation' (n: 11), 'Community: Care that supports the health of the community' (n: 6) as well as the domains 'Physiological: Basic: Care that supports physical functioning' (n: 3) and 'Family: Care that supports the family' (n: 3) were also represented.

Classes

In-depth analysis showed variations of incidence at the level of classes in contrast to domains. The domains with the most nominations did not necessarily contain the classes with the most frequently listed interventions. In some cases, the incidence of classes varied with the incidence of the domains. The class 'Risk Management:

	stu
	the
	.⊑
	analysed
	an
	of papers
	of
Table 1	Overview

dysessed dysessed	Posoarch	2	Contox	Sample	Aim of the ctucks
		=	COLICAL		done of the state
Bowers <i>et al.</i> 2000	Quantitative/	334	NK	Patients/	Exploring the determinants of absconding by patients on acute psychiatric wards
1007 Jaka 2000	quantitative	5	9	nurses	Free for the state of the state
Koslander & Arvidsson	Qualitative	12	Sweden	Patients Patients	exploring the perspective, experiences and perception of thought-disordered individuals who acted aggressively Describing patients' conceptions of how the spiritual dimension is addressed in mental healthcare
2007 Macines 2006	Ouantitative	23	Ŋ	Patients	Examining the significant association and relationship between self-acceptance. self-esteem and levels of psychological health
	:	;	:	:	(anxiety, depression, psychological well-being)
Cleary <i>et al.</i> 2003	Quantitative	46	Australia	Patients	Exploring of consumer discharge needs, to ascertain consumer perceptions of helpful practice, to identify areas that require improvement, to identify resources, to ascertain satisfaction with specific aspects of services
Hosany <i>et al</i> . 2007	Quantitative	36	NK	Nurses	Determining the effect of a short training in brief Solution Focus Therapy of mental health nurses on nurse-patient interaction
Engqvist et al. 2007	Qualitative	10	Sweden	Nurses	Exploring strategies used by nurses in caring for women with postpartum psychosis
Bowers <i>et al.</i> 2003	Quantitative	2	Ϋ́	Wards	Evaluation of the impact of an intervention to reduce absconding by patients from partially locked acute psychiatric wards
Spokes <i>et al.</i> 2002 Dood & Wellman 2000	Qualitative Quantitative	108	žΫ	Nurses Patients	Exploring the views of mental health nurses/assistants according staff behaviours that contribute or reduce inpatient violence Exploring nursing approaches using a psychological model (cognitive behaviour therapy) in the management of anxiety in a setting
Marangos-Frost & Wells	Qualitative	9	Canada	Nurses	that is unpredictable, has a high turnover of patients and short lengths of stay. Exploring the situation of physical restrains experienced through nurses, to discover the nurses' feelings and thoughts and how
2000	/0.:+0+: 0::0	170	9	1	these thoughts and feelings influence nurses' decisions
Neison & Breman 2001	qualitative/ Ouantitative	0/-		nurses	Determination the use of special observations on psychiatric inpatient across a range of chinical setungs
Berg & Hallberg 2000	Qualitative	22	Sweden	Nurses	Exploring psychiatric nurses' lived experiences of working with inpatient care on a general team psychiatric ward
Baker <i>et al.</i> 2006	Qualitative	22	Ϋ́	Patients	Exploring the service users' views and experiences of the processes associated with the prescription and administration of 'as
Carlén & Bengtsson 2007	Qualitative	=	Sweden	Nurses	needed pysings oper medications in active mental realist sectings. Exploring the experiences of psychiatric nurses with suicidal behaviour of patients within an inpatient psychiatric context
Haglund <i>et al.</i> 2003	Qualitative	19	Sweden	Patients/	Exploring the experiences of patients as well as the perception of nurses with forced medication, their perceptions of alternatives
-	:	;	-	nurses	and the retrospectively approval of forced medication
Haglund et <i>al.</i> 2006	Qualitative	04	Sweden	Nurses	Exploring nurses' and mental health nurse assistants' perceptions of advantages and disadvantages about working on a psychiatric ward with a locked entrance door
Wadell & Skärsäter 2007	Qualitative	11	Sweden	Nurses	Exploring psychiatric mental health nurses' experiences of caring for persons with a dual diagnosis of major depression and alcohol
	:	į		;	abuse
Haglund <i>et al.</i> 2004	Qualitative	25	Sweden	Patients/ nurses	Illumination of medication administration in inpatient psychiatric care, to present a description of patients' and nurses' experiences of medication administration, to study if experiences of coercion could be identified in connection with medication administration and interpretation and interpretation and interpretation administration.
Wildstrand et al. 2007	Qualitative	9	Sweden	Nurses	to voluntarily admitted patients Exploring nurses' experience caring for psychiatric patients who self-harm
Sun e <i>t al</i> . 2005	Qualitative	30	Taiwan	Nurses/	Development of a suicide care theory that could improve suicide prevention and care
2005 le te dedemació	ovi+c+i+qc110	213	Finland	patients Datients	Decrintion of neuchlatic innationts' catification with the case and to evoluse the factors accordated
Thomas <i>et al.</i> 2006	Quantitative	228	Australia	Patients	Description of the reduction of the number of pro re nata (p.r.n.) medications administrated in a psychiatric high dependency unit under controlled conditions
Curtis et al. 2007	Quantitative	64	Australia	Files	Description of the use of p.r.n. psychotropic medications and their association with other therapeutic interventions within acute
Movle 2003	Oualitative	7	Australia	Patients	inpatient care To explore the patients experiences about the patient–nurse relationship.
Bee <i>et al.</i> 2006	Quantitative	40	UK	Nurses	Exploring the ward-based activities of both qualified and unqualified staff working in the acute inpatient setting
Pridding et al. 2007	Literature review				Reviewing the role and function of mental health nurses in dual disability within acute inpatient setting
Secresily & Willer 2003	(vignettes)				Explaining the third end of the same type of regularity and the same type of request
Richards et <i>al</i> . 2005	Quantitative/ qualitative	228	UK	Patients	Exploring the effect of a specialist acute mental health nursing educational programme: (1) Does the programme have an impact on documentary evidence of individualized, user-centred care? (2) Does the programme have an impact on service user's opinions of
	-				their care?
lemkin & Crotty 2004	Instrument description				To describe the development and implementation of a new tool for risk of suicide and other monitoring for inpatient psychiatry
Duxbury & Baker 2004	Literature				Description of the problem in the management of anxiolytic (benzodiazepines) in the acute inpatient psychiatry and to identify an
	AAD AD AD AD AD AD AD AD				מקפונים וסן סטיבוויומן מוכסי סון ובסכמוריו

Table 2	
Overview of the statements listed in the classification Nursing Interventions Classification (NIC)	

NIC intervention/code (domains, classes)	n	Selected illustration of actions: Text passages specifying the actions
Medication Administration 2300; 2 (H)	9	'Medication administration is more than selecting the right medicine and administering the medicine to the right patient; it is also checking on whether the medication has been ingested and monitoring desirable and undesirable effects Medication Administration was described as a ritual, initiated by selecting the right medicine, followed by giving the patients the medicines, and ending by recording the administration' (Haglund et al. 2004).
Environmental Management: Safety 6486; 4 (V)	7	'The nurse gives time and attention to the patient, which may entail just being and sitting silently with her' (Engqvist et al. 2007). 'The degree to which the psychiatric inpatient environment qualifies as safe is directly dependent on factors such as the methods and tools used to monitor risk for self-harm. For example, psychiatric units have long attempted to assess opportunity risk' (Temkin & Crotty 2004). 'Routine safety searches (once per week), irregular searches, detailed safety searches (every shift) and intimate safety searches (body safety searches) (Sun et al. 2005).
Surveillance: Safety 6654; 4 (V)	7	'The formal assignation of nursing staff to maintain a clearly defined degree of observation or supervision over a patient who is assessed as representing some degree of risk to self and/or others on a single or multiple variables' (Neilson & Brennan 2001). 'Close supervision during which the nurses monitored acute patients, who were assessed as being at high suicide risk, every 5 min. In addition, a close-circuit television monitor was used to keep a watchful eye on patients who had strong ideas of suicide' (Sun et al. 2005). Suicidal precaution: ' a member of staff be within arms reach and have the patient in sight with no barriers between A staff member must visually check a patient's status every 15 minutes the patient is observed hourly' (Temkin & Crotty 2004).
Case Management	6	'In this way, the nurse acts as a link between the patient and the midwife by exhibiting close cooperation for
7320; 6 (Y), 7 (c)		the mother and baby's sake' (Engqvist et al. 2007). 'That is, the information sharing from nurses, doctors, patients, patients' families, record and a form of assessment of risk to suicide' (Sun et al. 2005).
Chemical Restraint 6430; 4 (V)	6	'Forced medication can be needed to protect patients against themselves or to protect other persons and/or to restore a patient's capacity to make autonomous decisions. Forced medication procedures are generally perceived to be clinically necessary options, albeit violating individuals' bodies and thus autonomy' (Haglund et al. 2003).
Discharge Planning 7370; 6 (Y)	6	Explanation of the discharge arrangements/involvement of the patient in discharge planning/written information about discharge arrangements/to prepare patient for discharge included increased contact with consumer consultants
Presence 5340; 3 (R)	5	' this aspect of care [mental and emotional care] gave nurses exceptional opportunities to "be there" with suicidal patients – in their humanity, physically, emotionally, in their presence and in time' (Sun et al. 2005). 'The nurses spent time listening to the patients and assisting them to talk about their fears, anxieties and problems' (Moyle 2003). 'The constant presence of nursing staff at the bedside, especially before or after unfamiliar procedures such as electroconvulsive therapy, as an ideal form of being nurtured that offered them comfort and reassurance' (Moyle 2003). 'The nurses said that it is important to be physically present and close to the patient, to sit beside her, give physical touch and by putting her arms around her so that the patient can see and feel the presence of the nurse. Psychological presence is to show interest in the patient and to give her full attention, even through periods of silence' (Engqvist et al. 2007). 'Daily caregiving was described as 'being there' for the patient, focusing the presence, and that meant being with as well as doing things for and with the patients' (Berg & Hallberg 2000).
Surveillance 6650; 4 (V)	4	5 · · · · · · · · · · · · · · · · · · ·
Teaching: Disease Process 5602; 3 (S)	4	'One important aspect of communication is imparting information to the patient and her relatives. When the patient is transferred or admitted to the psychiatric outpatient care, the nurse generally gives information about the illness to the woman's partner' (Engqvist et al. 2007).
Admission Care 7310; 6 (Y)	3	Interviewing order to carry out the holistic assessment; information about hospital on admission/initial assessments
Physical Restraint 6580; 1 (C), 4 (V)	3	'Nurses described restraint use as arising from a situation in which patients, others persons and/or the unit were perceived to be at risk of imminent harm. They felt the need to use restraints to manage the potential for harm' (Marangos-Frost & Wells 2000).
Risk Identification 6610; 4 (V)	3	Process of risk assessment/risk assessments/assess opportunity risk
Substance Use Treatment 4510; 3 (O)	3	'Open discussion of the patient's alcohol problem was a prerequisite for care and treatment' (Wadell & Skärsäter 2007). 'The nurses considered it important that they help the patient gain insight into his or her alcohol abuse, motivate him or her to stop drinking, and encourage the patient to comply with the treatment' (Wadell & Skärsäter 2007). 'The nurses mapped out the patient's professional social network, from the hospita as well as the community, after which the patient had the opportunity to discuss and plan together with the persons in that network, leading to a feasible care plan' (Wadell & Skärsäter 2007).
Suicide Prevention 6340; 4 (U, V)	3	'The nurses carried out four key nursing activities to protect the patients' safety: a "no-suicide" contract, increased safety measures in the bathroom, maintaining overall safety and ensuring minimalism' (Sun et al. 2005).
Teaching: Procedure/ Treatment 5618; 3 (S)	3	Information transfer to patients about treatment and illness/explanations given to you by the nurses about your care

Intervention to initiate risk-reduction activities and continue monitoring risks over time' (n: 40) was far more frequently identified than other classes. This class is involved in the most frequently named domain and responsible for its rank in the order of precedence. The second most frequently identified class was 'Health System Mediation: Intervention to facilitate the interface between patient/family and the healthcare system' (n: 18). This class is listed in the domain 'Health System' that contained the third most frequent references. The class 'Coping Assistance: Interventions to assist another to build on own strengths, to adapt to a change in function, or achieve a higher level of function' (n: 13) presented the third most frequently identified class. Because there were five other classes, e.g. 'Patient Education: Interventions to facilitate learning' (n: 11; fourth position) and 'Behaviour Therapy: Intervention to reinforce or promote desirable behaviours or alter undesirable behaviours' (n: 6; fifth position), the corresponding domain 'Behavioural' appeared as the second most frequently identified domain.

The class 'Drug Management: Intervention to facilitate desired effects of pharmacological agents' (n: 11) – the fourth most frequently identified class beside 'Patient Education' – was the only class that registered statements from articles in the domain of 'Physiological: Complex', which is the largest domain in NIC. Beside the class 'Behaviour Therapy' mentioned above, there was another class in the fifth position: 'Community Health Promotion: Interventions that promote the health of the whole community'. The remaining 23 classes contained less than five or no mentions.

Interventions

The NIC intervention 'Medication Administration' describes nursing tasks related to medication; nine actions in the articles were analysed as describing such interventions. Seven actions found in the articles were allocated to the NIC interventions 'Environmental Management: Safety' and 'Surveillance: Safety'. The main focus of both interventions is safety, on the one hand by monitoring and manipulating the physical environment and on the other by collecting and analyzing information about the environment of patients. Six actions were related to each of the three NIC interventions: 'Case Management' that co-ordinates care and advocates for individuals or groups across settings; 'Chemical Restraint' that describes the handling of psychotropic agents to control extreme behaviour; and 'Discharge Planning' that prepares the patient to move on from a particular setting. Five actions fell into the category of the NIC interventions 'Presence'. This intervention characterizes the physical and psychological presence of nurses in the care of patients. The NIC interventions 'Surveillance' and 'Teaching: Disease Process' both reflect four actions. The first intervention describes the acquisition and handling of patient data for clinical decision-making, the second intervention delineates the procedure of teaching patients to understand information relating to their disease.

There were six NIC interventions that were addressed by three actions each: 'Admission Care', 'Physical Restraint' and 'Risk Identification', as well as 'Substance Use Treatment', 'Suicide Prevention' and 'Teaching: Procedure/Treatment'. 'Admission Care' is a description of the regular care at the moment of entry into a care facility. 'Physical Restraint' addresses the procedure of mechanical restraining, and 'Risk Identification' analyses potential risk factors for a patient or a group. The intervention 'Substance Use Treatment' reflects the physical and psychosocial care of patients who have problems with alcohol or drugs, the intervention 'Suicide Prevention' describes the nursing procedure to prevent suicide, and the intervention 'Teaching: Procedure/Treatment' is defined as the procedure of teaching patients to understand the steps of the treatment. The remaining 30 NIC interventions contained only one or two actions. Their contents were very different and there was no obvious pattern that explained the nature of these interventions.

Statements unable to be mapped to NIC

Twenty-two actions did not fit existing NIC interventions because of their meaning and descriptions and required the creation of additional NIC interventions, or the revision of some structures in the NIC taxonomy. These actions are grouped into eight interventions by consensus of the authors considering context, aims and intention described in articles (Table 3).

Five actions represented each of the most frequently identified interventions that focus on planning nursing care or therapies performed by nurses. The second most frequently identified interventions were each constituted four actions focusing on de-escalation or partnership. The remaining interventions (Body Search, Administration, Self Advocacy or Risk Identification: Aggression) were represented by one action each.

Discussion

Various authors describe the content of nursing in psychiatric inpatient settings. Sauter *et al.* (2011) define the aims of psychiatric inpatient settings as: (a) prevention of danger; (b) reduction of psychiatric symptoms; and (c) improvement of subjective conditions and general stabilization in the context of the mental illness. The safe and

Table 3

Overview of non-mapped statements and suggestions for creating additional interventions and their classification in the taxonomy of Nursing Interventions Classification (NIC)

NIC intervention/code (domains, classes)	n	Actions: Text passages specifying the actions
Care Planning 6 (Y)	5	The individualization of care plans/to involve the patient in care planning/to monitor patient progress in response to treatment/mapping out the situation together with the patient: 'The nurses collected information in order to gain a holistic view of the patient's life and tried to be sensitive about the meaning of what the patient said. It was essential for the patient to narrate his or her own history and describe the kind of help that was most needed' (Wadell & Skärsäter 2007). Involving in drawing up their own care plans: 'This process should not only include service users reading and signing their care plans together with staff, or service users discussing the progress of this care to determine whether or not the care plan is meeting their needs, but also service users actually devizing care plans in partnership with staff (Richards et al. 2005).
Therapy 3 (?)	5	Cognitive behavioural therapy/therapeutic interventions such as cognitive behaviour therapy/identification and provision of relevant therapeutic activities/solution-focused therapy: 'The focus of discussion is on solutions (not problems); the future (not the past) and on what's going well (rather than what's gone wrong)' (Hosany et al. 2007). Cognitive behaviour therapy: 'Nurses are increasingly using cognitive behavior therapy as an intervention for psychological problems attached to a variety of clinical conditions' (Macines 2006).
De-escalation; 4 (V)	4	Talking with an aggressive patient/intervening in a patient-patient interaction/verbal de-escalation/de-escalation: 'P.r.n. medication should not be the first line of action, but is the treatment strategy when other less invasive interventions such as de-escalation, talking, or separation from the group are unsuccessful. De-escalation skills refer to a combination of understanding environmental reasons for aggression, risk assessment, and verbal and non-verbal strategies for calming a situation' (Curtis et al. 2007).
Partnership; 3 (Q)	4	Negotiating boundaries of closeness-distance/partnership with the patient: 'a partnership between the patient and nurse is crucial to reach a beneficial therapeutic result. This partnership facilitates the patient's participation in planning care and treatment such as decisions about privileges she might receive and whether she may go for walks alone' (Engqvist et al. 2007). Creating a relationship based on trust: 'The nurses believed that the creation of a trusting relationship with the patient and ensuring that the patient has confidence in the care received was most important'. 'The nurses were aware that if they gave the patients time, built up their confidence, and entered into a trusting relationship with them, their patients would become more open and talk about their drinking habits' (Wadell & Skärsäter 2007). Developing a working relationship with the patient in everyday care giving: 'The texts revealed two main approaches in the nurse–patient relationship. The first and dominating approach emphasized the nurse as an 'expert' knowing what was the best solution to the patients' problems or needs. The other approach emphasized the nurse as a 'Collaborator' on the basis of mutual co-operation in exploring the patients' problems and needs' (Berg & Hallberg 2000).
Body Search; 4 (V)	1	Intimate safety searches (body safety searches).
Administration; 6 (b)	1	Administration: 'Ward based (general administration/checking post, staff training & supervision, staff rotation/collaboration' (Bee et al. 2006).
Self Advocacy; 3 (Q)	1	Promote self-advocacy and independent advocacy (developing personal autonomy).
Risk Identification: Aggression; 4 (V)	1	To make a judgement about a patient's potential to cause serious bodily harm to self or others.

structured environment of a psychiatric inpatient setting is essential for patients in need of protection from suicidal ideation, aggressive impulses, medication adjustment and monitoring, crisis stabilization, substance abuse detoxification and behaviour modification (Jordan Halter 2009). Rungapadiachy et al. (2004) identified mental health nurses as: an administrator who organizes, documents and links patients with other members of the healthcare team; an advocate of psychological interventions who spends time and builds relationships with patients as well as performs structured therapeutic programmes (e.g. cognitive behaviour therapy); an agent of physical interventions who observes and performs physical care (e.g. physical hygiene, nutritional needs); as well as an administrator of drugs and a teacher. Psychiatric mental health nurses assist patients in resolving mental, emotional and dysfunctional aspects of life crises. Nurses also manage and alleviate distressing symptoms of mental disorders, improve overall functioning and decrease the consequences of mental illness (Holoday Worret 2008).

Despite the fact that the results of the current literature search reflect all domains of the NIC, nursing care in inpatient psychiatric settings is represented by three main focuses. Around 75% of the identified interventions in the NIC domains are listed in the domains 'Safety' (support against harm), 'Behavioural' (supporting psychosocial functioning as well as facilitating lifestyle changes) and 'Health System' (mediating between the patient and the health system).

Within the domain 'Safety', the class 'Risk Management' contains the greatest number of interventions identified in the literature (40 statements). Based on these results, the

work of psychiatric nurses in inpatient settings seems dominated by risk-reducing and risk-monitoring interventions. Buchanan-Barker & Barker (2005) interpreted the growing needs for safety as a main topic (of societies, the political mainstream as well as the mental health services) in the 21st century, influencing the medical paradigm within mental healthcare. However, the contemporary practices of mental health nurses are dominated by risk management activities, especially the 'bureaucratic process of observation' (Buchanan-Barker & Barker 2005). As an alternative to the concept of 'Risk Management', the authors suggest a concept of 'bridging' on the basis of interpersonal relationships and the power of caring.

The interventions in the domain 'Behavioural' were distributed into different NIC classes. Two classes are particularly noteworthy: 'Coping Assistance' (13 statements) and 'Patient Education' (11 statements). The first class describes interventions of assistance in developing personal strengths, to adapt to functional changes and/or to achieve higher functional levels. Koivisto et al. (2004) describe experiences of patients with psychoses who received the help of nurses in inpatient settings. Generally, patients experience nursing care as helpful but unstructured. On the one hand, nursing interventions should protect patients from vulnerability so that the individual feels safe, understood, respected and trusted and thus becomes more selfconscious and maintains his or her integrity. On the other, nursing care should assist in the restructuring and empowering of the self to cope in daily life. Conversations with primary nurses are considered by many patients to be the most important caring activities (Koivisto et al. 2004). The class 'Patient Education' contains interventions to facilitate learning. An earlier study has shown that patient education as a systematic and planned process, employing different educational methods and taking the interaction between patient and nurse into consideration (Hätönen et al. 2010).

The class 'Health System Mediation' – integrated into the domain 'Health System' – is the second most frequently represented class (18 nominations). The class contains interventions such as 'Admission Care', 'Discharge Planning', 'Case Management' and 'Patient Rights Protection'. It summarizes interventions that facilitate the interface between patients, their families and the healthcare system. These interventions seem particularly important because psychiatric inpatient settings are environments over which patients have little control (Rogers & Gray 2009).

The class 'Drug Management' (11 statements) contains interventions to facilitate desired effects of medical treatments. Effective medication management practices empower the patient to make informed treatment decisions and to closely monitor the effects of medicine (Gray & Robson 2009). In the current study, the class is

represented by the interventions 'Medical Administration' and 'Teaching: Prescribed Medication'. The intervention 'Medical Administration' is noteworthy as it is the most frequently cited nursing intervention in the current study. Tentative interpretations of this finding could include the legal necessity to meticulously document the administration of medication or the predominance of the medical paradigm in psychiatric nursing.

Although the greatest number of identified intervention terms and definitions are already contained in the NIC, the significance, meaning and content of some interventions could not be mapped to the classification. Several actions describe different steps and approaches of planning nursing care focusing on individualization, on interactions between nurse and patient and on the process of monitoring. Although the NIC intervention 'Admission Care' contains elements of statements found in the articles, it fails to define the comprehensive and accurate process of nursing care planning that seems to be a continual process throughout the whole period of hospitalization and not only at admission. Therefore the intervention 'Care Planning' was suggested to accommodate the identified actions. Because the intervention 'Care Planning' supports the effective use of nursing care, it should probably be listed in the domain 'Health System'. Further, as the intervention refers to an interactive action between patient and nurse we propose its allocation to the class 'Health System Mediation'.

This study revealed actions indicating different therapy methods performed by nurses in inpatient psychiatry. The NIC taxonomy contains two classes into which therapeutic nursing interventions in inpatient psychiatry can be allocated: 'Behaviour Therapy', which contains interventions to modify behaviour, and 'Cognitive Therapy', which contains interventions to support cognitive functioning. The design of the NIC taxonomy allows neither interventions with other therapeutic orientations (e.g. solution therapy) nor interventions with a combination of both approaches (e.g. cognitive behaviour therapy) to be established. To ensure a comprehensive intervention classification system, it seems necessary to re-organize the current NIC taxonomy at the level of classes within the domain 'Behavioural' to include further therapeutic approaches.

Several results found in the articles indicate the existence of nursing activities aiming to defuse foreseeable conflicts. The main focus of these activities is on de-escalating strategies to prevent different forms of aggression escalation and dangerous moments. These activities reduce the risks of harm and help control circumstances. Pavalonis (2008) describes de-escalation skills as effective techniques in interpersonal relationships that are essential for mental health

nurses. Further, Varcarolis & Alverez (2009) mentioned that nurses have to be well trained in de-escalation techniques to deal with violent situations and individuals. Because these nursing actions support safety, the suggested intervention 'De-escalation' should be integrated into the domain 'Safety' and into the class 'Risk Management'.

The analysis of the articles highlighted actions that describe the importance of and different approaches to developing a partnership or working relationship with patients. In contrast to the NIC intervention 'Complex Relationship Building', which addresses the promotion of insight and behavioural changes, the actions found address successful interaction with patients, acting as a basis for nursing care and going beyond the necessity to promote insight and behavioural changes. The suggested intervention 'Partnership' contains steps and approaches to establish a common basis for successful interaction between nurses and patients. The intervention 'Partnership' requires time, professional skills and human resources and should be integrated into the domain 'Behavioural' and the class 'Communication Enhancement'.

The following interventions – reflecting nursing actions that are time-consuming, contain several working steps and have a beginning and an end – were identified in the literature by one statement only. Although their database seems to be marginal, the suggested interventions 'Body Search' and 'Administration' as well as 'Self Advocacy' and 'Risk Identification: Aggression' are well-established practical nursing activities in adult inpatient psychiatry but inadequately reflected in the literature.

The intervention 'Body Search' is planned to be listed under the domain 'Safety' and added to the class 'Risk Management'. This intervention entails nurses searching for objects or substances that are not allowed in a certain area because they are dangerous for others or for the patient him/herself. Based on the descriptions found, the intervention 'Administration' contains common and regularly performed ward-based administrative actions unlinked to other interventions or to the NIC intervention 'Documentation'. In this sense, 'administration' was used to describe documentation and is therefore part of communication. For this reason, this new intervention should be listed under the domain 'Health System' and the class 'Information Management'. The suggested intervention 'Self Advocacy' includes nursing actions that develop the personal autonomy of patients. The content of the suggested intervention 'Risk Identification: Aggression' seems to be different from the content of the existing intervention 'Surveillance: Safety'. The definition of 'Risk Identification: Aggression' as a separate intervention, focusing on the identification of risk factors, seems to be more appropriate.

Limitations

Some limitations of this study should be mentioned. The search strategy was limited to German and English papers listed in the databases MedLine, PsychInfo, Cochrane and CINAHL, and explored articles published in English only. For this reason, language bias cannot be ruled out. The search strategy addressed publications listed in databases, while other written documents were excluded from the analyses. There is thus a need to encompass other languages as well as other sources of information.

The determination process of nursing interventions implies some room for interpretation, because of a lack of standardized language or precise description of actions in articles, and relating to the assignment of actions at the abstraction level of activities to corresponding NIC interventions. The consideration of contexts, aims and intentions of the identified actions in the original text limited the room for interpretation and entailed a decisive focus that allowed a precise assignment to interventions.

The identification of some psychiatric nursing interventions was based on one article only. Although these nursing interventions are established in practice and often used in the daily routine of psychiatric nursing, they are seldom described in the literature. Therefore, additional research is needed to verify the present results. Further, more studies on alternative methodologies (e.g. documentation analyses) and samples (e.g. patient, relatives) are important to define psychiatric inpatient nursing care and to differentiate individual nursing interventions and activities.

Conclusion

This study demonstrates that nursing care in adult inpatient psychiatry settings is based on well-defined tasks and activities included in the NIC. About 83% of the statements (terms and definitions) found in the articles are contained by the classification. Nevertheless, there is still a necessity to specify and communicate some psychiatric nursing interventions. The results of this study provide a basis for further research on nursing interventions improving patient outcomes. The design of this study included a literature review and mapping procedures. It demonstrates that the NIC classification contains most activities and interventions described in the literature. Only a few interventions need to be added to the NIC classification or demand a reorganization of the taxonomy. Closing this gap would strengthen the knowledge base of mental health nursing as well as the application of the NIC classification in psychiatric nursing practice. It is essential that nurses understand why and through which activities they perform interventions.

References

- Aiyegbusi A. & Norton K. (2009) Modern milieus: psychiatric inpatient treatment in the twenty-first century. In: *The Art and Science of Mental Health Nursing*, 2nd edn (eds Norman, I. & Ryrie, I.), pp. 260–282. Open University Press, Berkshire
- Baker J.A., Lovell K., Easton K., et al. (2006) Service users' experiences of 'as needed' psychotropic medications in acute mental healthcare settings. Journal of Advanced Nursing 56, 354–362
- Bee P.E., Richards D.A., Loftus S.J., et al. (2006) Mapping nursing activity in acute inpatient mental healthcare settings. Journal of Mental Health 15, 217–226.
- Berg A. & Hallberg R. (2000) Psychiatric nurses' lived experiences of working with inpatient care on a general team psychiatric ward. *Journal of Psychiatric and Mental Health Nursing* 7, 323–333.
- Bowers L., Jarrett M., Clark N., et al. (2000) Determinants of absconding by patients on acute psychiatric wards. Journal of Advanced Nursing 32, 644–649.
- Bowers L., Alexander J. & Baskell C. (2003) A trial of an anti-absconding intervention in acute psychiatric wards. *Journal of Psychiatric and Mental Health Nursing* 10, 410–416.
- Buchanan-Barker P. & Barker P. (2005) Observation: the original sin of mental health nursing? Journal of Psychiatric and Mental Health Nursing 12, 541–549.
- Bulechek G.M., Butcher H.K. & McCloskey Dochterman J. (2008) Nursing Interventions Classification (NIC), 5th edn. Mosby Elsevier, St. Louise, MO.
- Carlén P. & Bengtsson A. (2007) Suicidal patients as experienced by psychiatric nurses in inpatient care. *International Journal of Mental Health* Nursing 16, 257–265.
- Cleary M., Horsfall J. & Hunt G.E. (2003) Consumer feedback on nursing care and discharge planning. *Journal of Advanced Nursing* 42, 269–277.
- Curtis L., Baker J.A. & Reid A.R. (2007) Exploration of therapeutic interventions that accompany the administration of p.r.n. ('as required') psychotropic medication within acute mental health settings: a retrospective study. *International Journal of Mental Health Nursing* 16, 318–326.
- Dood H. & Wellman N. (2000) Staff development, anxiety and relaxation techniques: a pilot study in an acute psychiatric inpatient setting. *Journal* of *Psychiatric and Mental Health Nursing* 7, 443–448.
- Duxbury J.A. & Baker J. (2004) The use and nursing management of benzodiazepines in

- acute, mental health inpatient care: a discussion. Journal of Psychiatric and Mental Health Nursing 11, 622–667.
- Engqvist I., Nilsson A., Nilsson K., et al. (2007) Strategies in caring for women with postpartum psychosis – an interview study with psychiatric nurses. Journal of Clinical Nursing 16, 1333– 1342.
- Gray R. & Robson D. (2009) Medication management. In: Mental Health Nursing, an Evidence-Based Approach (eds Newell, R. & Gournay, K.), pp. 109–128. Churchill Livingstone Elsevier, Philadelphia, PA.
- Haglund K., von Knorring L. & von Essen L. (2003) Forced medication in psychiatric care: patient experiences and nurse perception. Journal of Psychiatric and Mental Health Nursing 10, 65–72.
- Haglund K., von Essen L., Knorring L., et al. (2004) Medication administration in inpatient psychiatric care – get control and leave control. Journal of Psychiatric and Mental Health Nursing 11, 229–234.
- Haglund K., von Knorring L. & von Essen L. (2006) Psychiatric wards with locked doors – advantages and disadvantages according to nurses and mental health nurse assistants. *Journal of Clinical Nursing* 15, 387–394.
- Hätönen H., Suhonen R., Warro H., et al. (2010)
 Patients' perceptions of patient education on
 psychiatric inpatient wards: a qualitative study.

 Journal of Psychiatric and Mental Health
 Nursing 2010, 335–341.
- Holoday Worret P.A. (2008) Principles of psychiatric nursing: theory and practice. In: *Psychiatric Mental Health Nursing* (eds Fortinash, K.M. & Holoday Worret, P.A.), pp. 1–19. Mosby Elsevier, St. Louis, MO.
- Hosany Z., Wellman N. & Lowe T. (2007) Fostering a culture of engagement: a pilot study of the outcomes of training mental health nurses working in two UK acute admission units in brief solution-focused therapy techniques. *Journal of Psychiatric and Mental Health* Nursing 14, 688–695.
- Johnson B., Martin M.-L., Guha M., et al. (1997) The experience of thought-disordered individuals preceding an aggressive incident. Journal of Psychiatric and Mental Health Nursing 4, 213–220.
- Jordan Halter M. (2009) Setting for psychiatric care. In: Essentials of Psychiatric Mental Health Nursing, a Communication Approach to Evidence-Based Care (eds Varcarolis, E.M. & Halter, J.M.), pp. 535–546. Saunders Elsevier, St. Louis, MO.
- Just A., Arnold A., Busch N., et al. (2005) Ordnungssystem zur Abbildung des Pflegeprozesses im eletronischen Patientendossier – Eine Empfehlung zuhanden der

- Pflegedienst-Kommission der Gesundheitsdirektion des Kantons Zürich. Zürich.
- Keenan G. & Yakel E. (2005) Promoting safe nursing care by bringing visibility to the disciplinary aspects of interdisciplinary care. [Evaluation Studies]. AMIA. Annual Symposium proceedings/AMIA Symposium. AMIA Symposium, 385–389.
- Keenan G., Tschannen D. & Wesley M.L. (2008) Standardized nursing teminologies can transform practice. *Journal of Nursing Administra*tion 38, 103–106.
- Koivisto K., Janhonen S. & Väisänen L. (2004) Patients' experiences of being helped in an inpatient setting. *Journal of Psychiatric and Mental Health Nursing* 11, 268–275.
- Koslander T. & Arvidsson B. (2007) Patients' conceptions of how the spiritual dimension is addressed in mental health care: a qualitative study. *Journal of Advanced Nursing* 57, 597–604.
- Kuosmanen L., Hätönen H., Jyrkinen R.A., et al. (2006) Patient satisfaction with psychiatric inpatient care. Journal of Advanced Nursing 55, 655–663.
- Macines D.L. (2006) Self-esteem and -acceptance: an examination into their relationship and their effect on psychological health. *Journal of Psychiatric and Mental Health Nursing* 13, 483–
- Marangos-Frost S. & Wells D. (2000) Psychiatric nurses' thoughts and feelings about restraint use: a decision dilemma. *Journal of Advanced Nursing* 31, 362–369.
- Mayring P. (2010) *Qualitative Inhaltsanalyse*, 11th edn. Belz Verlag, Weinheim.
- Moyle W. (2003) Nurse–patient relationship: a dichotomy of expectations. *International Journal of Mental Health Nursing* 12, 103–109.
- Müller-Staub M., Needham I., Odenbreit M., et al. (2007) Improved quality of nursing documentation: results of a nursing diagnoses, interventions and outcomes implementation study. International Journal of Nursing Terminologies and Classifications 18, 5–17.
- Müller-Staub M., Needham I., Odenbreit M., et al. (2008) Implementing nursing diagnostics effectively: cluster randomized trial. Journal of Advanced Nursing 63, 291–301.
- Neilson P. & Brennan W. (2001) The use of special observations: a audit within a psychiatric unit. Journal of Psychiatric and Mental Health Nursing 8, 147–155.
- Pavalonis D. (2008) Schizophrenia and other psychotic disorders. In: *Psychiatric Mental Health Nursing* (eds Fortinash, K.M. & Holoday Worret, P.A.), pp. 249–283. Mosby Elsevier, St. Louis, MO.
- Pridding A., Watkins D. & Happell B. (2007) Mental health nursing roles and functions in acute inpatient units: caring for people with

930

- intellectual disability and mental health problems – a literature review. *International Journal* of Psychiatric Nursing Research 12, 1459– 1470
- Richards D., Bee P., Loftus S., et al. (2005) Specialist education intervention for acute inpatient mental health nursing staff: service user view and effects on nursing quality. *Journal of Advanced Nursing* 51, 634–644.
- Rogers P. & Gray R. (2009) Inpatient nursing. In:
 Mental Health Nursing, 2nd edn (eds Newell,
 R. & Gournay, K.), pp. 151–169. K. Churchill
 Livingstone Elsevier, Edinburgh.
- Rungapadiachy D.M., Madill A. & Gough B. (2004) Mental health student nurses' perception of the role of the mental. *Journal of Psychiatric* and Mental Health Nursing 11, 714–724.
- Sauter D., Abderhalden C., Needham I., et al. (2011) Lehrbuch Psychiatrische Pflege, 3rd edn. Verlag Hans Huber, Bern.
- Spokes K., Bond K., Lowe T., et al. (2002) HOVIS
 the Hertfordshire/Oxfordshire Violent Incident Study. Journal of Psychiatric and Mental
 Health Nursine 9, 199–209.

- Sun F.K., Long A., Boore J., et al. (2005) Nursing people who are suicidal on psychiatric wards in Taiwan: action/interaction strategies. Journal of Psychiatric and Mental Health Nursing 12, 275–282.
- Szczesny S. & Miller M. (2003) PRN medication use in inpatient psychiatry. *Journal of Psycho*social Nursing 41, 16–21.
- Thomas B., Jones M., Johns P., et al. (2006)
 P.r.n. medication use in a psychiatric high-dependency unit following the introduction of a nurse-led activity programme. *International Journal of Mental Health Nursing* 15, 266–271
- Temkin T.M. & Crotty M. (2004) Suicide and other risk monitoring in inpatient psychiatry. Journal of the American Psychiatric Nurses Association 10, 73–80.
- Varcarolis E.M. (2009) Practicing the science and art of psychiatric nursing. In: Essentials of Psychiatric Mental Health Nursing, a Communication Approach to Evidence-Based Care (eds Varcarolis, E.M. & Halter, J.M.), pp. 2–10. Saunders Elsevier, St. Louis, MO.

- Varcarolis E.M. & Alverez C. (2009) Anger and aggression. In: Essentials of Psychiatric Mental Health Nursing, a Communication Approach to Evidence-Based Care (eds Varcarolis, E.M. & Halter, J.M.), pp. 424–441. Saunders Elsevier, St. Louis, MO.
- Wadell K. & Skärsäter I. (2007) Nurses' experiences of caring for patients with a dual diagnosis of depression and alcohol abuse in a general psychiatric setting. Issues in Mental Health Nursing 28, 1125–1140.
- Wallace T., O'Connell S. & Frisch S.R. (2005)
 Community psychiatric practice, what do nurses do when they take to the streets? An analysis of psychiatric and mental health nursing interventions in the community. Community Mental Health Journal 41, 481–496
- Wildstrand C., Lindgren B.-M., Gilje F., et al. (2007) Being burdened and balancing boundaries: a qualitative study of nurses' experiences caring for patients who self-harm. Journal of Psychiatric and Mental Health Nursing 14, 72–78.