

## NURSES' PERCEPTION OF POWER REGARDING THEIR CLINICAL ROLE

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*This article reports on a study on nurses' perception of power regarding their clinical role before and after implementation of a nursing diagnosis classification. Sixty clinical nurses (average age = 37.2 ± 7.0 years) from a Brazilian teaching hospital answered the Power as Knowing Participation in Change Tool (PKPCT) before and after the implementation of a diagnosis classification. PKPCT has four domains and provides total and partial scores. Reliability coefficients ranged from 0.88 to 0.98. Total scores were not statistically different between assessments (p=0.21), although scores in the "Involvement in Creating Change" domain were higher in the second assessment (p=0.04). Further studies providing sound evidence regarding the impact of nursing classification systems on nurses' power perception are needed to guide decisions on teaching and clinical practice.*

**DESCRIPTORS:** attitude; nurse's role; nursing diagnosis; staff development

## LA PERCEPCIÓN DE PODER DE LAS ENFERMERAS FRENTE A SU PAPEL CLÍNICO

*Este artículo relata un estudio sobre la percepción de poder clínico de las enfermeras, antes y después de la implementación de una clasificación de diagnósticos de enfermería. Sesenta enfermeras (edad promedio = 37,2±7 años), de un hospital brasileño de enseñanza, respondieron el instrumento Power as Knowing Participation in Change Tool, antes y después de la implementación de una clasificación de diagnósticos. Ese instrumento tiene 4 dominios y provee puntajes parciales y totales. Los coeficientes de confiabilidad del instrumento fueron de 0,88 a 0,98. Los puntajes totales no fueron estadísticamente diferentes entre las evaluaciones (p=0,21), sin embargo los puntajes de "Participación en la Creación de Cambios" fueron más altos después de la implementación de la clasificación (p=0,04). El impacto del uso de sistemas de clasificación de enfermería en la percepción de las enfermeras sobre su poder clínico todavía requiere estudios que entreguen evidencias útiles para guiar decisiones en la enseñanza y en la clínica.*

**DESCRIPTORES:** actitud; rol de la enfermera; diagnóstico de enfermería; desarrollo de personal

## PERCEÇÃO DE PODER DE ENFERMEIRAS FRENTE AO SEU PAPEL CLÍNICO

*Este artigo relata estudo sobre a percepção de poder clínico de enfermeiras, antes e após a implementação de uma classificação de diagnósticos de enfermagem. Sessenta enfermeiras (idade média = 37,2±7 anos), de um hospital brasileiro de ensino, responderam o instrumento Power as Knowing Participation in Change Tool, antes e após a implementação de uma classificação de diagnósticos. Esse instrumento tem 4 domínios e provê escores parciais e totais. Os coeficientes de confiabilidade do instrumento foram de 0,88 a 0,98. Os escores totais não foram estatisticamente diferentes entre as avaliações (p=0,21), mas os escores de "Envolvimento na Criação de Mudanças" foram mais altos após a implementação da classificação (p=0,04). O impacto do uso de sistemas de classificação de enfermagem na percepção das enfermeiras sobre seu poder clínico ainda requer estudos que forneçam evidências úteis para guiar decisões no ensino e na clínica.*

**DESCRITORES:** atitude; papel do profissional de enfermagem; diagnóstico de enfermagem; desenvolvimento de pessoal

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## INTRODUCTION

The importance of classification systems is internationally acknowledged. Nursing classification systems are the basis of knowledge representation, which permits the recovery of useful data in nursing. Even though there is considerable literature on the development of vocabulary, terminology and nursing classifications, as well as their impact in nursing documentation, there are few studies addressing the effects of classifications on other aspects of clinical practice.

Implementing a classification system in a health system is a change process. This article reports on nurses' perception of power regarding their clinical role before and after the implementation of the North American Nursing Diagnosis – International Classification (NANDA-I)<sup>(1)</sup>.

Nurses' perception of power is an important component in the development of their clinical role<sup>(2)</sup>. Literature suggests that nurses frequently feel powerless because they are subject to the power of others<sup>(2-3)</sup>. This study's main assumption is that the implementation of a nursing diagnosis classification positively affects nurses' perception of power.

### Power

The idea prevails that power is the capacity to exert influence over a person or a group so that they accept different ideas, even against their will, or the capacity of one or more people to achieve what they desire by a collective action.

Literature on power is extensive and presents several definitions and theories. Power is something abstract and older definitions were associated to military and government control actions, representing ideas of authority, strength, coercion, manipulation, influence and control<sup>(4)</sup>. In addition to the view that power is a social relationship, more recently, power has been described as a transforming phenomenon that promotes individual and group growth by encouraging reciprocity and creative thinking, expansion of knowledge and awareness<sup>(5-6)</sup>.

Power has two main meanings: 'power to' and 'power over'<sup>(7)</sup>. Power over is the capacity to influence people and is related to control, competitiveness and authority. 'Power to' refers to efficacy and capacity to achieve goals, means used to assure them and abilities to act accordingly<sup>(7)</sup>.

This study focused on nurses' power perception to change outcomes of patients' health and not to influence other people through control, competitiveness and authority. Power was viewed as an intentional desire to be part of transformation; thus, the study perspective was 'power to'<sup>(7)</sup>.

### Power as conscious participation

The view of 'power to' is an extension of the notion of power focused on people and environment as an integrally related whole. A theory of power based on Science of Unitary Human Beings<sup>(8)</sup> was developed in agreement with this view. This theory defines power as the capacity to consciously participate in changes, characterizing continuous standardization of human and environmental fields<sup>(9)</sup>. Power expressed as conscious participation means one is aware of his(er) choice, feels free to carry out this choice, and intentionally does what has been chosen<sup>(6,9)</sup>.

This theoretical framework explains intentional participation in changing processes, which can be applied to several contexts of human experience. This study focused on nurses' perception of power related to their clinical role. For this purpose, clinical power was defined as the nurses' perception of being intellectually, physically and emotionally capable and prepared to interpret human responses, plan, implement and effectively evaluate nursing interventions. Based on the chosen theory of power<sup>(6)</sup>, nurses' awareness about which care actions to carry out, sense of freedom to carry them out, and intention to carry them out represent nurses' clinical power.

Observable manifestations of power are awareness, choices, freedom to act intentionally and involvement in creating change<sup>(6)</sup>. Awareness refers to the consciousness of what one perceives to exist. In this study, it refers to nurses' awareness regarding their clinical role. Choices are selections among possibilities to participate in experiences<sup>(6)</sup>. In this study, choices are selections among possibilities to participate in clinical experiences. Freedom to act intentionally refers to the capacity one has to do something or perform what one has in mind<sup>(6)</sup>. In this study, it refers to nurses' capacity to play their clinical role, guided by their own principles and knowledge. Involvement in creating change is innovative engagement in the unpredictable mutual process between people and environment, aiming to make some possibilities come true and not others<sup>(6)</sup>. Thus,

in this study, it refers to nurses' engagement in the mutual process between environment and people to realize patients' health potential.

#### Nursing diagnosis

The importance of nursing diagnosis has increased and there are efforts to develop diagnosis classifications to represent the universe of possibilities related to the focus of clinical nursing. This universe of possibilities allows nurses to identify clinical foci related to the care they deliver. Identifying the clinical focus yields greater awareness of their clinical role, added intentionality and involvement to decide what to do to positively influence patients' health condition. In summary, the identification of clinical foci can increase nurses' perception of "power", of being "capable" to interfere and realize patients' health potential.

Scientific classifications are tools used to improve human experiences and the meanings of words or phrases contained in them are based on the experiences of users of the classifications themselves<sup>(10)</sup>. As nurses start to use a classification system, they need to think about the meanings of words or phrases and this exercise helps them to organize their experiences in nursing.

The use of a diagnosis classification can increase nurses' perception of power because it offers them a certain organization of knowledge on nursing's clinical foci. More organized knowledge on clinical foci favors nurses' higher awareness on them. In addition, a diagnosis classification presents a large number of alternatives for diagnostic conclusions, that is, it offers reference for choosing the best diagnoses for each situation. Access to information, represented by a diagnosis classification, can increase the perception of freedom to act intentionally and involvement to promote changes in patients' health<sup>(11)</sup>.

#### OBJECTIVE

This study aimed to compare nurses' perception of power before and after the implementation of the diagnosis classification NANDA-I<sup>(1)</sup> in a hospital. The hypothesis tested was that nurses' power would increase with the implementation of the classification.

#### METHOD

Longitudinal study carried out in a public teaching hospital in São Paulo, SP, Brazil. This hospital is a medium-size institution. At the time of study, it offered 246 beds (medical clinic, surgical, pediatric, intensive care and maternity units), outpatient clinic and emergency. Since 1980, when the hospital was created, the nursing process is applied and documented. The nursing department initiated the implementation process of the NANDA-I classification in May, 2004. A year later, in May 2005, NANDA-I documentation of diagnoses became a requirement in all patients' profiles at the institution. At the time of its implementation, the NANDA-I classification used was the 2003-2004<sup>(1)</sup> edition.

Data were collected in May 2004 and May 2005. In May 2004, all nurses had already participated in courses, workshops and clinical discussions to address diagnostic rationale, NANDA-I classification and nursing process aiming to implement the innovation. Resistance, frequently expressed at the beginning, was slowly transformed in moderate enthusiasm in relation to the classification in clinical practice and data collection was carried out in this climate.

From May 2004, when the first data collection was carried out, until May 2005, the nurses planned, negotiated and implemented the necessary changes in the documentation system (entirely manual), so as to have NANDA-I nursing diagnoses documented daily for all patients. In May 2005, all nurses had to document diagnoses of those patients under their care. The second data collection was carried out in May 2005.

All nurses working at the institution were invited to participate in the study. In May 2004, there were 186 nurses and 115 (61.8%) participated in the first evaluation. In May 2005, 60 nurses who participated in the first evaluation also participated in the second one. Sixty nurses participated in the two evaluations, that is, 33% of all nurses in the institution.

Data were collected through a questionnaire distributed to all nurses working at the institution. Participants answered the questionnaire individually. The questionnaire was composed of two parts: the first included social data and a set of five items on the type and level of their experience with nursing diagnoses. The instrument *Power as Knowing Participation in Change Tool (PKPCT)*<sup>(6)</sup> was used in the second part. This instrument was developed to

evaluate power as the capacity to consciously participate in changes. It uses the semantic differential technique and is composed of four domains (Awareness, Choices, Freedom to act intentionally and Involvement in creating change) and 48 items. The scores of items can be summed for each domain (possible variation from 12 to 18 points) and for the total scale (possible variation from 48 to 336). The phrase "In relation to my clinical practice..." was provided as the context to answer to items. The scale's internal consistence was evaluated through Cronbach's alpha and varied from 0.88 (first application) to 0.98 (second application), revealing good reliability. PKPCT<sup>(6)</sup> was adapted to Portuguese language, after the author's authorization, in an unpublished study carried out with 313 participants. In the scale adaptation study, the analysis of main components, with Varimax rotation, confirmed the four dimensions of the original instrument, all with self-values >1. This solution explained 53.7 of variance and the dimensions' internal consistency calculated by Cronbach's alpha varied from 0.87 to 0.96. The instrument reliability estimates in the original language varied from 0.63 to 0.99<sup>(6)</sup>. To match the two evaluations of this study, participants provided the three last digits of their CPF (Individual Taxpayer Registry) number.

Personal experience with nursing diagnoses was evaluated through a self-report. Nurses answered to what extent they had: 1) participated in events on nursing diagnoses; 2) read about the subject; 3) participated in courses on diagnoses, 4) worked with diagnoses in clinical practice and 5) researched on

nursing diagnoses. The level of experience was scored from one to four (1=nothing, 2=very little; 3=little; 4=a lot). A total score (varying from 5 to 20) was obtained by the sum of items. Internal consistency of this measure was good in both evaluations (Cronbach's alpha= 0.73).

The institution's ethics committee approved the project and all participants signed the free and informed consent term.

The differences between PKPCT scores were analyzed through the Paired t-test after confirmation that scores had normal distribution. Central tendency was analyzed by average and standard deviation. To check if experiences with nursing diagnoses varied between the two data collections, Wilcoxon's test was applied to the scores on their level of experience with nursing diagnoses. Normal distribution was not confirmed for these data. Thus, non-parametric test was used on the median (P50), second (P25) and third (P75) quartiles to describe central tendency through SPSS<sup>®</sup> Version 13.0. The significance level was set at 5% for all tests.

## RESULTS

The participants' age (N=60) varied from 24 to 58 years (average = 37.2 ± 7 years) and the average of years of experience after the bachelor's degree was 13.1 ± 6.9 years; 95% was female.

Table 1 presents the results on the types and levels of experience with nursing diagnoses in the two evaluations and results of statistical tests.

Table 1 – Level of experience\* with nursing diagnoses before and after the implementation of NANDA-I classification (N=60)

Experience	Before				After				p-value
	P25	P50	P75	Average (SD)	P25	P50	P75	Average (SD)	Wilcoxon Test
Conferences	2	3	3	2.5 (0.7)	2	3	3	2.5 (0.8)	0.98
Reading	3	3	4	3.4 (0.5)	3	4	4	3.5 (0.6)	0.34
Courses	3	3	3	3.1 (0.7)	3	3	4	3.2 (0.6)	0.51
Practice	2	3	4	2.8 (1)	3	4	4	3.6 (0.7)	0
Research	1	2	3	1.8 (0.9)	1	2	3	2.1 (1)	0.18
Total	12	13	15	3.6 (2.7)	13	15	16.7	14.8 (2.6)	0.009

\* For each type of experience, scores could be 1=nothing; 2=very little; 3=little; 4=a lot

Participants evaluated themselves as having little or very little experience with nursing diagnoses before and after the implementation of NANDA-I

classification and scores of experience with clinical practice were significantly higher after implementation (p=0.001) (Table1).

Table 2 presents scores regarding PKPCT domains and results of statistical tests to compare measures before and after implementation.

Table 2 – Scores of PKPCT domains before and after implementation of NANDA-I classification (N=60)

Domains	Before	After	Paired t-test			
			CI 95%	t	p-value	
Awareness	68.6 (8.4)	67.7 (9.7)	-1.3	3.1	0.8	0.42
Choices	70.1 (14.7)	68.6 (8.6)	-2.5	5.5	0.7	0.46
Freedom to act	67.3 (9.5)	68.3 (10.3)	-3.9	1.9	-0.7	0.51
Involvement in change	65.6 (11.2)	68.5 (10.4)	-5.7	-0.1	-2	0.04
Total	269.6 (31.7)	273.6 (33)	-10.5	2.4	-1.3	0.21

## DISCUSSION

The hypothesis of this study was not confirmed, although the scores of the domain Involvement in creating changes after implementation of NANDA-1 classification were statistically higher than before implementation ( $p=0.04$ ) (Table 2). Involvement in creating change refers to the person's sense of commitment with the nature of changes that occur in the environments. The institution modified methods and instruments of nurses' clinical practice during the NANDA-1 implementation process, which changed the work context. This change was participative and almost all nurses got involved in workshops and educative programs on NANDA-1 classification and diagnosis rationale and in the elaboration of strategies and methods to implement them in clinical practice<sup>(12)</sup>. People increase their perception of power when they get involved in the implementation of changes in their environments<sup>(13)</sup>.

Studies on the effect of classification on nurses' empowerment are scarce. A study analyzed, through computer-based systems, the effect of nursing classifications on school nurses' perception of power to help children and on the health results of the children themselves<sup>(11)</sup>. The PKPCT total scores of nurses who used the classifications ( $n=6$ ) were  $262 \pm 40.6$  (before) and  $279 \pm 27.6$  (after). Statistical significant differences at the level of 5% were not found before and after the system implementation; the scores of each domain of the PKPCT were not reported. Similarly, in the present study, PKPCT total scores were not different before and after the implementation of NANDA-I classification ( $269.6 \pm 31.7$  and  $273.6 \pm 33.0$ ;  $p=0.21$ ) (Table 2).

Participants of this study evaluated themselves as having little or very little experience

with nursing diagnoses before and after the implementation (Table 1). After the implementation, there was an increase in the median score related to clinical practice ( $p=0.001$ ) and in the total ( $p=0.009$ ). These findings support the interpretation that the implementation of NANDA-I classification increased nurses' experience with nursing diagnoses and this gain in experience might be related to the increased perception of power in the domain Involvement in Creating Changes (Table 2).

Comparisons between before and after the implementation showed no statistically significant changes in the domains Awareness, Choices and Freedom to act intentionally (Table 2). Careful analysis of concepts involved in these domains can aid in the interpretation of results.

The domain Awareness refers to nurses' consciousness regarding their clinical role. The domain Choices refers to power to select nursing interventions for patients. The domain Freedom to Act Intentionally is related to the performance of care actions to implement selected interventions. The selection (domain Choices) and implementation (domain Freedom) of nursing interventions are directly related to patients' care. Considering that the clinical use of NANDA-I classification was only incipient, as the recording of diagnoses in all patients' profiles had been required for one month only, the participants' experience in care delivery for patients using the classification was recent. This little time nurses were using NANDA-I was sufficient to increment their level of experience with diagnoses in clinical practice (Table 1), but did not significantly increased the scores in the domains Awareness, Choices and Freedom. Considering that an effect depends on time of exposure, more time using NANDA-I classification would probably produce different results. Repetitive measures of the perception of power after a long time of exposure to the use of the classification system on clinical practice could provide data to better study the influence of standardized language systems on nurses' perception of power.

The lack of standards for PKPCT scores to aid in the interpretation of results of this and other studies with Brazilian samples makes it difficult to determine if the scores of participants in this study were high, average or low. In general, the scores observed in the first evaluation can be considered moderate ( $269.6 \pm 31.7$ ) (Table 2). In this evaluation, the average total PKPCT score corresponded to 80% of the maximum ( $269/336$ ) and, after implementation it corresponded to 81.3%

(289/336)<sup>(14)</sup>. The average total PKPCT scores of nurses in this study seem lower than those found in other studies. The average scores observed in a sample of 349 nursing undergraduate students before and after a clinical course were 274 and 280, respectively<sup>(15)</sup>. In another study with 88 nursing students, the average total PKPCT score was 287.6<sup>(16)</sup>. In samples of executive nurses, the scores observed were 290±23.4 (n=182)<sup>(14)</sup> and 289±25.9 (n=89)<sup>(17)</sup>, and these were the highest in the analyzed studies. Considering that the perception of power among nurses in this study cannot be generalized for Brazilian nurses and that there are few studies on this variable in the United States of America, added to the fact that the majority was carried out with students and executive nurses, comparisons should be judicious.

It is important to take into account, in the interpretation of results, that PKPCT scores tend to high levels related to "social desirability", which masks the identification of samples with low perception of power<sup>(18)</sup>. Thus, further studies on PKPCT Standards are needed.

## CONCLUSION

This study did not confirm the hypotheses that the NANDA-I implementation would positively influence nurses' power perception. There was an increase in the perception of power related to the domain Involvement in Creating Change, but there were no differences in the scores of other domains or in the total average score. Strategies to increase nurses' capacity to consciously participate in the nature of changes can contribute to their empowerment. In clinical practice, nurses' power is related to their conscious participation in changes in the patients' health condition. Nursing classifications can be instruments capable of helping nurses to increase their awareness of their clinical role and power related to this role.

Further research is needed, aiming to increase the knowledge on the relations between nurses' perception of power and models, strategies and instruments, applied in clinical practice.

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