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ACURACY OF NURSING DIAGNOSES FROM A CARDIOLOGY INSTITUTION

ACURÁCIA DOS DIAGNÓSTICOS DE ENFERMAGEM DE UMA INSTITUIÇÃO DE CARDIOLOGIA

PRECISIÓN DE LOS DIAGNÓSTICOS DE ENFERMERÍA DE UNA INSTITUCIÓN DE CARDIOLOGÍA

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ABSTRACT

Objective: to analyze the degree of diagnostic accuracy of the clinical nurses of a cardiology institution. ***Method:*** this is a quantitative, observational, cross-sectional study conducted with 53 nurses who used nursing diagnoses at work. Two instruments were used: one for the characterization of the sociodemographic profile and the clinical case for the survey of nursing diagnoses. The degree of diagnostic accuracy was measured using the Nursing Diagnostic Accuracy Scale (NDAS-2). ***Results:*** it is revealed that nurses who participated in the Sectorial Clinical Visit and worked in non-critical units listed significantly fewer Nursing diagnoses of low / null accuracy. There was no difference in relation to the survey of Nursing diagnoses with high/moderate accuracy. ***Conclusion:*** it contributes to the improvement of the diagnostic accuracy of nurses through training programs for the exercise of clinical reasoning. It is suggested that permanent in-service education take place in an effective way with the objective of improving the accuracy of nursing diagnoses of nurses, making it possible to obtain accurate diagnoses, targeted interventions and the establishment of possible goals. ***Descriptors:*** Nursing; Nursing Diagnosis; Nursing Process; Clinical Competence; Inservice Training; Education.

RESUMO

Objetivo*:** analisar o grau de acurácia diagnóstica dos enfermeiros clínicos de uma instituição de cardiologia**.** ***Método*:** trata-se de estudo quantitativo, observacional, transversal, realizado com 53 enfermeiros que utilizavam os diagnósticos de Enfermagem no trabalho. Utilizaram-se dois instrumentos: um para a caracterização do perfil sociodemográfico e o caso clínico para o levantamento dos diagnósticos de Enfermagem. Mensurou-se o grau de acurácia diagnóstica por meio da Escala de Acurácia de Diagnósticos de Enfermagem (EADE-2). ***Resultados*:** revela-se que enfermeiros que participavam da Visita Clínica Setorial e atuavam em unidades não críticas elencaram significativamente menor número de diagnósticos de Enfermagem de acurácia baixa/nula. Não houve diferença em relação ao levantamento de diagnósticos de Enfermagem com acurácia alta/moderada. ***Conclusão: contribui-se para a melhora da acurácia diagnóstica dos enfermeiros por meio de programas de treinamento para o exercício do raciocínio clínico. Sugere-se que a educação permanente em serviço aconteça de forma efetiva com o objetivo de melhorar a acurácia dos diagnósticos de Enfermagem dos enfermeiros possibilitando-se o levantamento de diagnósticos acurados, de intervenções direcionadas e o estabelecimento de metas possíveis. ***Descritores*:** Enfermagem; Diagnóstico de Enfermagem; Processo de Enfermagem; Competência Clínica; Treinamento em Serviço; Educação.

RESUMEN

Objetivo: analizar el grado de exactitud diagnóstica de los enfermeros clínicos de una institución de cardiología. ***Método:*** estudio cuantitativo, observacional, transversal, realizado con 53 enfermeros que utilizaban diagnósticos de enfermería en el trabajo. Se utilizaron dos instrumentos: uno para caracterización del perfil sociodemográfico y el caso clínico para el levantamiento de los diagnósticos de enfermería. El grado de exactitud diagnóstica fue mezclado por medio de la Escala de Precisión de Diagnósticos de Enfermería (EADE-2). ***Resultados***: enfermeros que participaban de la Visita Clínica Sectorial y actuaban en unidades no críticas, consideraron significativamente menor número de diagnósticos de enfermería de precisión baja / nula. No hubo diferencia en relación al levantamiento de diagnósticos de enfermería con precisión alta / moderada. ***Conclusión:*** los programas de entrenamiento para el ejercicio de raciocinio clínico contribuyen a mejorar la exactitud diagnóstica de los enfermeros. Se sugiere que la educación permanente en servicio ocurra de forma efectiva con el objetivo de mejorar la exactitud de los diagnósticos de enfermería de los enfermeros posibilitando el levantamiento de diagnósticos precisos, intervenciones dirigidas y establecimiento de metas posibles. ***Descriptores*:** Enfermería; Diagnóstico de Enfermería; Proceso de Enfermería Competencia Clínica; Capacitación em Servicio; Educación.

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INTRODUCTION

The Nursing diagnosis was inserted as a stage of the Nursing process, starting from the 70s, considering it an essential element.[1] It is defined as a clinical judgment of the response of the individual, family or community or a group in relation to health conditions / life processes or to the vulnerability of this response when describing the health status of the client, which provides the basis for the selection of Nursing interventions and directs Nursing care to achieve results for which the nurse is responsible. [2]

They are made visible by the use in clinical practice of Nursing diagnoses, the targeting of interventions and measurable results, the improvement of communication between the Nursing team and the other professionals, as well as the availability of information about the contributions in quality in the health service.[3]

The process of diagnostic reasoning is based on the recognition of clues, comparison of clinical evidence, mental elaboration of possible nursing diagnoses, aiming to direct the interventions to obtain the expected results.[1]

It is necessary to analyze and synthesize the data obtained and label them, with the best concept available, in one of the standardized language systems. NANDA International is among the most widely used standard language diagnostic systems since the 1970s. [1]

Nurses are enrolled in clinical practice to diagnose Nursing from the exercise of critical reasoning to interpret data collected through interview, physical examination and reading of exams. This exercise of diagnostic reasoning requires, from nurses, the interaction of interpersonal, technical and intellectual processes. Based on the client's answers, establishing the presence of clues enables the nurse to establish the judgment of Nursing diagnoses with better accuracy.[3]

Diagnostic accuracy can be established as a judgment of an evaluator as to the degree of relevance, specificity and coherence of the existing clues for a given nursing diagnosis.[4]

It is believed that listing a nursing diagnosis is a process of uncertainties, and the finding of clues can confirm a diagnostic hypothesis, exclude another or redirect the nurse's focus to a previously unheard of human response. Thus, nursing diagnosis verification studies are used to establish the presence of a nursing diagnosis and help to recognize accurate diagnoses that demonstrate the patient's actual clinical condition.[5]

Inferring diagnoses of high accuracy improves the effectiveness of the care provided, enabling the nurse to direct actions aimed at solving and reducing the problems raised. On the other hand, inaccurate diagnoses can lead to nonobservance of actual or potential problems and cause harm to the patient. Instruments that allow the measurement of the diagnostic accuracy make it possible to differentiate the presence or absence of a particular nursing diagnosis, making the diagnosis.[6-7]

An instrument was developed by an American researcher to estimate the diagnostic accuracy of nurses. When applied in Brazil, the results were not similar, but served as the basis for the creation of an instrument by Brazilian researchers.[1,4]

An instrument for the evaluation of nursing diagnoses, called the Nursing Diagnostic Accuracy Scale (NDAS), is developed for nurses with experience in the clinical area of the patient, the use of diagnostic classification and the concept of accuracy of nursing diagnosis.[4] Based on the Nursing Diagnosis Accuracy Scale, NDAS-version 2 was developed with the objective of meeting the needs of teaching, research and clinical practice.[8]

Training programs for diagnostic skills are important for the development of critical thinking. Studies indicate that nurses participating in these programs, such as training on diagnostic accuracy and Nursing Care Systematization, presented better diagnostic accuracy results.[3,5-6]

Strategies of discussion of clinical case in group and presentations in the clinical scenario are proposed as ideal formats for individual and collaborative learning, as they stimulate the development of skills for clinical reasoning, axis of the Nursing process. The effective participation of nurses awakens in the professionals the development of clinical competences observed in the discussions of clinical cases with a higher accuracy in the elaboration of Nursing diagnoses, putting into practice what has just been learned in the individual

discussions and in group also making it possible to use this strategy as a humanization action. [9]

It is believed that teaching through on-the-job training contributes to improving the diagnostic accuracy of nurses and that the degree of diagnostic accuracy is greater in nurses who are more frequently involved in these programs.

OBJECTIVE

- To analyze the degree of diagnostic accuracy of clinical nurses from a cardiology institution.

METHOD

It is a quantitative, observational, cross-sectional study. The population of this study was made up of clinical nurses who worked in care units of a tertiary-level hospital service, specialized in the cardiovascular area, in the city of São Paulo.

The following inclusion criteria were listed: nurses working at this institution, critical care units (Adult and Child Post-operative Intensive Care Unit, Clinical Intensive Care Unit, Coronary Unit and Emergency Room) and non-critical units (Nursing ward of the Emergency Room, Adult and Pediatric Hospitalization Units), regardless of the time they were in the activities and using Nursing diagnoses during work practice. And as exclusion criteria, participants were defined as follows: participants who did not submit the questionnaire after four attempts to return and those who were on extended leave (more than 30 days) in the period stipulated for data collection. The study sample comprised 53 nurses.

The sample was divided into two groups: Group 1 (G1), composed of 27 nurses who did not participate or only participated in a meeting of the training program in diagnostic skills, called Sectorial Clinical Visit and Group 2 (G2), for 26 nurses who participated in more than two meetings at the Sectorial Clinical Visit from 2011 to 2016.

Data was collected between August and November of 2016. For the collection of data, an instrument was developed with sociodemographic questions to characterize the profile of nurses and a clinical case to collect the degree of diagnostic accuracy of nurses. The gold standard of determination of the Nursing diagnoses was validated by the following judges: five nurses with expertise in Nursing diagnosis and who were part of the Nursing Assistance Systematization Commission of the field of study of this research under the reference of the Diagnostic Classification of NANDA International Nursing (NANDA I) 2015-2017.2 The survey was established by consensus, and the diagnoses were classified according to their degree of accuracy (null, low, moderate and high).

Participants were instructed on the resolution of the case study to be done individually and that the classification of NANDAI diagnoses could be consulted describing all the elements of the nursing diagnoses (title, defining characteristics, related factors and risk factors) for each identified diagnosis. The clinical case could be analyzed in the nurses' own sector of work or outside the work environment, returning the result after a week of the delivery date, if they could not respond within a week. It would also be combined with three more dates for the return. Excluded from the study were those who did not deliver on all four trials, according to the exclusion criterion.

The degree of diagnostic accuracy was measured using the Diagnostic Accuracy Scale (EADE version 2) [8] with the prior authorization of the authors. This instrument allows to indicate, in ordinal values, the degree of accuracy of the nursing diagnoses from written data, and is composed of four evaluation items: presence of clues, relevance of the lane, specificity of the lane and coherence of the lane. Nine (0/1/2 / 4.5 / 5.5 / 9/10 / 12.5 / 13.5) punctuation possibilities are allowed, which can be grouped into four categories of accuracy: Null (0), Low (1), Moderate (2 / 4.5 and 5.5) and high (9/10 / 12.5 and 13.5)[4].

A sample of 88 nurses (44 nurses in each group) was statistically calculated to detect a difference of five points in the degree of diagnostic accuracy of nurses who participated in the Sectorial Clinical Visit program around 0.5 (moderate correlation), with a level of significance of 5% and power of 80%. Ninety-one nurses were invited to participate in the study, handing out an envelope containing the clinical case, the instrument with data on the sociodemographic profile and the FICT. Of these, 54 returned the envelope, 21 did not return it and 16 refused to participate or

returned the envelope without filling. Those who returned the unfilled material alleged lack of time and those who refused to participate claimed to dislike research and lack of time.

The collected data was stored in spreadsheet (Microsoft Excel 2010) fed by the researchers. All variables were coded in a dictionary of terms and, afterwards, the variables were subjected to descriptive and inferential statistical analyzes under the guidance of a statistical professional. The descriptive level (p-value) <0.05 was considered statistically significant in all analyzes.

The determinations of Resolution 466/2012 were followed and all the participants signed the Free and Informed Consent Term. This study was approved by the Research Ethics Committee of the Dante Pazzanese Institute of Cardiology under protocol 4692; CAAE: 59003316.7.0000.5462.

RESULTS

It was shown in Table 1 that 53 nurses were divided in two groups: group 1 (did not participate or participated in only one clinical visit) and group 2 (participated in two to eight clinical visits). Females predominated in both groups (88.6%). The median age (Med) of each group was 35 (SD = 10.2) years in G1 and 33 (SD = 7.4) years in G2.

The groups were compared in relation to the area of action, 81.5% of the nurses in Group 1 operated in critical units, while in Group 2 there was a predominance of non-critical units (61.5%).

The specialization in both groups was highlighted in terms of titration, and in GP1, 92% had a specialist degree and, in G2, 73%. Regarding the formation time, there was still a Med of 83 (sd = 85.3) months for G1 and of 85 (sd = 69.3) months for G2. Regarding the time of practice as a nurse, in group 1, the median was 82 (sd = 87.2) months and in G2, 75 (sd = 67.8) months. Comparing the groups in relation to the time of performance in the field institution of this study, G1 presented a median of 60 (sd = 92.1) months of institution time, while G2 presented 70 (sd = 36.5) months of time in the institution.

The groups were also analyzed with regard to the time of performance in the sector (unit of work) and time of use of the ND in clinical practice. For G1, the median was 36 (SD = 90.0) and 66 (SD = 92.5) months and for G2, 37 (SD = 60.4) and 65.5 (SD = 72.8) months, respectively. The majority of the participants had ND related training in the undergraduate program: 85.2% (G1) and 88.5% (G2).

Table 1. Distribution and comparison of groups according to sociodemographic characteristics (N = 53). São Paulo (SP), Brazil, 2017.

Variables	Group 1 (n 27)	Group 2 (n 26)	P-value*
Sex			0.192*
Female (n(%))	22(81.5)	25 (96.4)	
Age			0.250*
Ave (sd)	35(10.12)	33(7.04)	
Min- Max	26.0-66.0	25.0-55.0	
Sector of activity			0.002*
Critical units (N (%))	22 (81.5)	10 (38.5)	
Uncritical Units (N (%))	5 (18.5)	16 (61.5)	
Titration (n-27)			0.152*
Graduation (N (%))	2 (7.4)	3 (11.5)	
Specialization	25 (92.5)	19 (73.1)	
Masters (N (%))	0 (0.0)	3 (11.5)	
Did not respond		1.(3.9)	
Time graduated (months)			0.7284**
Ave (sd)	83 (85.27)	84 (69.26)	
Min-Max	30.0- 360.0	48.0-396.0	
Time working as a nurse (in months)			0.985**
Ave (sd)	82 (87.24)	75 (67.77)	
Min-Max	18.0-360.0	19.0-360.0	
Duration of the institution (months)			0.682**
Ave (sd)	60 (92.10)	70 (63.50)	
Min-Max	15.0-360	19.0-360	
Time of activity in the sector (months)			0.851**
Ave (sd)	36 (90.06)	37 (60.37)	
Min-Max	1- 360	1 -299	

Time of use of ND in clinical practice (months)			0.464**
Ave (sd)	66 (92.50)	65.5 (72.76)	
Min- Max	15.0-360	24.0-390	
ND training related to graduation			1*
Yes (N (%))	23 (85.2)	23 (88.5)	
No (N (%))	3 (11.1)	2 (7.7)	
Did not respond (N (%))	1 (3.7)	1(3.8)	

Fisher's exact test * Wilcoxon-Mann-Whitney test ** ND= Nursing Diagnosis

It was pointed out in table 2 that there was a greater participation in courses on SA2 in G2 (73.1%); however, G1 had a higher percentage (77.8%) in relation to the feeling of ability to formulate ND with high / moderate degree of accuracy.

A total of 54 different nursing diagnoses were detected in the case study analysis. Of these, 47 ND were identified by G1 and 33 ND by G2.

Table 2 shows that the median number of NDs identified by nurses was the same for both groups (5), however, the maximum number of NDs identified per nurse was 27 in group 1, while in the group 2, the maximum identified by nurses was 14 ND.

Table 2. Comparison of groups in relation to participation in SNC training programs Self-reported ability to establish high / moderate degree nursing diagnoses and number of NDs identified in the clinical case. São Paulo (SP), Brazil, 2017.

Variables	Group 1 (27 ND)	Group 2 (14 ND)	P-value*
Participation in progress on SNC			0.558*
Yes (n (%))	17 (63.0)	19 (73.1)	
No (n (%))	10 (37.0)	7 (26.9)	
Feeling of ability to formulate ND with high / moderate degree of accuracy			1.000*
Yes (n (%))	21 (77.8)	19 (73.1)	
No (n (%))	6 (22.2)	5 (19.2)	
Did not respond	0 (0.0)	2 (7.7)	
Number of ND identified by nurse			0.985**
Ave (sd)	6.7 (5.03)	6.19 (3.51)	
Min-Max	2.0-27.0	1.0- 14.0	

Fisher's exact test * Wilcoxon-Mann-Whitney test ** ND = Nursing Diagnosis

It was observed, according to table 3, that G2 had the highest number of NDs with a high / moderate degree of accuracy and a median of 5.0 (dp = 3.06), while G1 had a median of 4.0 dp = 2.76). The group that participated most in the clinical visit program (G2) identified a lower number of NDs with low accuracy and null accuracy.

Table 3. Comparison of the number of Nursing Diagnoses identified by the nurses, according to the degree of diagnostic accuracy. São Paulo (SP), Brazil, 2017.

Degree of accuracy	Group 1 (27 ND)	Group 2 (14 ND)	P-value*
High/Moderate			0.760
Ave (sd)	4 (2.76)	5 (3.06)	
Min-Max	2.0-12.0	1.0-12.0	
Low			0.963
Ave (sd)	0 (0.89)	0 (0.63)	
Min-Max	0.0 – 4.0	0.0-2.0	
Nul			0.357
Ave (sd)	1 (2.19)	0 (1.01)	
Min-Max	0.0 – 11.0	0.0-0.4	

* Wilcoxon-Mann-Whitney Test

It was observed in table 4 that the null category diagnostic accuracy was associated with the nurses' unit of work and participation in SNC courses.

Table 4. Association between the degree of accuracy with feeling of ability to formulate ND of high / moderate accuracy, participation in SNC courses and unit of work. São Paulo (SP), Brazil, 2017.

Variables	High/Moderate Accuracy (P Value)	Low Accuracy (P Value)	Null Accuracy (P Value)
Feeling of ability to formulate ND	0.0199	0.6727	0.6727
Sector of activity (non-critical unit)	0.0201	0.5701	0.0023
Participation in progress on SNC	0.0404	0.0297	0.0427

Wilcoxon-Mann-Whitney Test

It was observed, according to table 5, that the higher the participation of nurses in the Sectorial Clinical Visit Program, the lower the number of nursing diagnoses of low or no accuracy.

Table 5. Association between the degree of accuracy and participation in the Clinical Visit program. São Paulo (SP), Brazil, 2017.

Variables	High/Moderate accuracy	Low accuracy	Nul accuracy
Clinical visita	0.1496***	-0.0271***	-0.287***
P value	0.285	0.845	0.037

*** Spearman rank correlation coefficient

DISCUSSION

In this study, the degree of accuracy was verified in the determination of nursing diagnoses of clinical nurses of an institution specialized in the treatment of cardiovascular diseases. It was found that nurses who participated more frequently in in-service training, through a clinical discussion at the bedside, reported a lower number of NDs with low and zero degrees of accuracy.

These findings are corroborated in similar studies.[2,10-11-12] A study conducted with undergraduate students and Nursing residents of the first and second years of Nursing residency at a public university in São Paulo showed that Nursing residents of the 2nd year registered a lower number of ND with low accuracy due to the longer in-service training.[10]

A study was conducted by researchers with the objective of evaluating the accuracy of the diagnosis of acute pain in hospitalized children in the period before and after the implementation of an in-service training program. The Nursing diagnosis investigated showed moderate / high accuracy during the study period, but four months later the accuracy became prevalent low / null.[11]

In a study carried out in India, the efficacy of an educational course aimed at nurses from two hospitals on critical thinking to obtain accurate nursing diagnoses was evidenced, evidencing the significant increase in diagnostic accuracy in the experimental group (who received the training) in relation to the control group (who did not receive training).[12]

In another study carried out in Niterói, RJ, Brazil, the aim of this study was to verify the accuracy of Nursing diagnoses for patients with heart failure in a hospital setting. After training, the accuracy of the Nursing diagnoses showed that four of the six study participants were only considered fit after the second round of training[2].

The results of this study show that there is a need for continuous and directed training in the practice of listing accurate nursing diagnoses and corroborate the findings of this study where the association between participation in specific courses on SNC, the participation in the training program on the bedside to the degree of accuracy of the nursing diagnoses. G2 participants, who participated in these training models taught by the Local Study

Group on Nursing Care Systematization, listed a lower amount of ND with low/null accuracy.

The search for the accuracy of nursing diagnoses is more frequently reported in the literature[13]. The use of ND with a high degree of accuracy favors the implementation of appropriate and targeted interventions to achieve results, besides favoring professional practice.[3,5-6,10-11-12]

To identify accurate nursing diagnoses, it is necessary for the nurse to have theoretical and practical knowledge of nursing phenomena, familiarity with the nursing taxonomy, and skills to recognize evidence of their presence. [14]

For in-service training, a greater awareness of clinical evaluations focused on the subject of on-the-job training is encouraged, and it becomes possible to acquire new knowledge in practice. The lower the number of Nursing diagnoses of low / null accuracy, the better the care given, since the diagnosis of high / moderate accuracy is necessary to propose interventions aimed at obtaining positive results for the patient.[12]

The signs and symptoms presented by the patients are interpreted more specifically by means of specific training on the use of nursing diagnoses and the use of a classification system as resources necessary to the diagnostic accuracy favoring the development of cognitive skills such as clinical reasoning, problem solving and decision-making in nursing.[1,3,12,14]

In the institution where this study was carried out, the specific study group on Nursing Care Systematization has been active in the institution since 2005, with the main focus on the training of Nursing professionals about the Nursing process. The training activities of the SNC Group occur through four phases: admission integration in partnership with the Continuing Education Service, updating course in SNC, clinical meetings and clinical visits.[9]

In the admission integration, the training for the newly admitted nurses returns, when the norms and routines of the Nursing Board are presented, including all stages of the Nursing process.[9]

It is clarified that the refresher courses in SNC are theoretical-practical courses given to the institution's nurses. During the courses, all stages of the Nursing process are developed, emphasizing the clinical reasoning by means of grouping of the significant data, identification of the main diagnoses, definition of goals, planning of the interventions and evaluation of the results of Nursing using, as a theoretical reference, the NANDA Nursing Classifications I[2], Nursing Outcomes Classification - NOC and Nursing Intervention Classifications - NIC.[9]

It is stimulated by the Clinical Meetings to improve clinical competence through the Case Method with discussions of the Nursing process in the various cardiovascular specialties.[9]

The Clinical Visits are carried out at the bedside, directing the planning of the assistance with greater effectiveness in meeting the needs of the patient, contributing to the improvement of the quality indicators of Nursing care and collaborating with the records of the therapeutic plan aiming the professional development in service.[9]

It is awakened in the professionals, by the effective participation in the in-service training program, with discussion of bedside cases, the development of clinical competence evidenced in the discussions of clinical cases, with a higher accuracy in the elaboration of ND, in practice what has just been learned in the discussions, besides using this strategy as a humanization action.[9]

It is inferred in this study, in relation to the amount of diagnoses surveyed, that G1 nurses listed a total of 27 SD and G2, a total of 14 SD, 32% less than G1. A similar result was found in a study that evaluated the Nursing diagnoses of undergraduates and Nursing residents where the students enrolled significantly more number of ND than the residents.[10]

It was also verified that, the greater the number of participation in Clinical Visit, the smaller number of diagnoses are raised and less diagnoses of low or zero accuracy are listed.

It was observed that there was no significant difference in relation to the degree of high accuracy between the groups. This finding is explained by the fact that all the participants of the research work in an institution with the profile of specific patients and use the process of Nursing in clinical practice in a consolidated manner. In this institution, ND were inserted in clinical practice in 1990 and,

periodically, a training course was held in this area.

It is noteworthy that all the nurses of this institution received training on the Nursing process in the admission integration phase, in addition to the SNC update courses carried out by the study group on Nursing Care Systematization. Both the G1 and G2 participants had practical contact with the contents of the Nursing process, nursing diagnosis and clinical reasoning. The activities carried out by the SNC group are made available to employees who express interest.

It should be noted that other relevant data found in this study, although not statistically significant, is the fact that G1 participants report a greater sense of ability to list high accuracy nursing diagnoses. These data are in agreement with those found in the study[11], which, when investigating the self-reported ability feeling in the ND in undergraduate Nursing students of the last year and Nursing residents of the first and second years, identified that the majority of the participants of the three groups were evaluated with considerable diagnostic ability. These findings reflect an overvaluation of their own diagnostic ability.

The predominance of nurses from non-critical units in G2 with p-value of 0.002 was also evidenced. The G2 participants listed a lower number of the ND with low and zero accuracy. This may perhaps be justified by the need for more time for a precise investigation, where the work dynamics of critical units direct to rapid action. However, this finding, contrasts with results found in a study that evaluated the accuracy of the nursing diagnoses of the nurses of the Pediatric Intensive Care Unit and of the pediatric clinical and surgical hospitalization unit, where the prevalence of low/null accuracy diagnoses was more prevalent in the hospitalization units.[11]

It is found, through the elaboration of accurate nursing diagnoses, in lower indices of hospital stay. Training and methods that improve the diagnostic accuracy of nurses allow a real interpretation of the signs and symptoms presented by the patient, accurately predicting situations of clinical improvement or decompensation, and make it possible to establish more palpable goals and reliable care[3].

Knowledge about the diagnostic process is improved and the reliability of clinical studies on Nursing diagnoses is increased by the use of reliable and validated methods to measure the accuracy of Nursing diagnoses.[15] NDAS-2 is used in several studies[1, 10-11,15] showing the efficacy in determining the degree of accuracy of the nursing diagnoses. In-service training is a strategy that is effective in improving nurses' performance.[3,5-6,10-11-12]

This study was limited by the small sample of participating nurses. It is suggested that the method be applied in larger samples of professionals in order to identify the difficulties of interpreting human responses in defining characteristics of Nursing diagnoses that may be inaccurate, as well as to identify deficits in knowledge about certain NANDA domains -I so that there is more training in the sense of approaching the nurse to the taxonomy of Nursing diagnoses.

CONCLUSION

The degree of diagnostic accuracy of the clinical nurses of a cardiology institution was identified in this study. It was verified that nurses who participate in in-service training through a bedside clinical discussion present a lower number of Nursing diagnoses with low or no accuracy degree.

It is revealed that there was no significant difference in relation to the degree of high accuracy between the groups. This finding is explained, perhaps, by the fact that all the participants of the research work in an institution with the profile of specific patients and use the nursing process in clinical practice in a consolidated manner.

NDAS-2 proved to be effective in measuring the degree of accuracy of nurses as well as the effectiveness of in-service training through clinical discussion at the bedside and courses focused on the Systematization of Nursing Care.

It is considered important that this training model happens continuously and that all nurses participate effectively.

Based on the findings, it is suggested that permanent in-service education take place in an effective way with the objective of improving the accuracy of nursing diagnoses of the nurses, enabling accurate diagnoses documenting, targeted interventions and the establishment of possible goal setting.

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