

Content validation of interrupted family processes nursing diagnosis

Validação de conteúdo do diagnóstico de enfermagem processos familiares interrompidos

Validación de contenido del diagnóstico de enfermería Interrupción de los procesos familiares

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Abstract

Objective: To validate the Interrupted Family Processes nursing diagnosis content in women deprived of liberty.

Methods: This is a methodological study to validate the Interrupted Family Processes nursing diagnosis content, carried out with 24 experts, from August to December 2019. Experts were nurses, psychologists and social workers with clinical and theoretical experience in the area of study. These were recruited from the *Plataforma Lattes*, the researcher's relational universe and snowball sampling technique. Data were analyzed using the R statistical program, and Content Validity Index was calculated based on the predictive diversity model. The 95% Confidence Intervals were also calculated and the Wilcoxon test was applied, having Content Validity Index ≥ 0.9 as a reference value for the null hypothesis.

Results: Twelve elements of the diagnosis under study were identified, which were statistically significant, with the exception of Father Absence item, which was excluded from the diagnostic proposal. Depression item was also excluded, as suggested by the experts, despite the statistical significance.

Conclusion: The Interrupted Family Processes nursing diagnosis content in women deprived of liberty was considered valid by the experts and can guide the clinical practice of nurses, especially in the operationalization of the Nursing Process.

Resumo

Objetivo: Validar o conteúdo do diagnóstico de enfermagem processos familiares interrompidos em mulheres privadas de liberdade.

Métodos: Estudo metodológico de validação de conteúdo do diagnóstico de enfermagem processos familiares interrompidos, realizado com 24 especialistas, no período de agosto a dezembro de 2019. Os especialistas foram enfermeiros, psicólogos e assistentes sociais com experiência clínica e teórica na área do estudo. O recrutamento destes ocorreu a partir da plataforma Lattes, do universo relacional do pesquisador e técnica de amostragem "snow ball". Os dados foram analisados pelo programa estatístico R, sendo calculado o Índice de Validade de Conteúdo com base no modelo da diversidade preditiva. Também foram calculados os Intervalos de Confiança de 95% e foi aplicado o teste de Wilcoxon, tendo como valor de referência para a hipótese nula o Índice de Validade de Conteúdo $\geq 0,9$.

Resultados: Foram identificados 12 elementos do diagnóstico em estudo, os quais apresentaram significância estatística, com exceção do item "ausência da figura paterna" o qual foi excluído da proposta diagnóstica. O item "depressão" também foi excluído, conforme sugestão dos especialistas, apesar da significância estatística.

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Conflicts of interest: nothing to declare.

Conclusão: O conteúdo do diagnóstico de enfermagem processos familiares interrompidos em mulheres privadas de liberdade foi considerado válido pelos especialistas e pode nortear a prática clínica do enfermeiro, sobretudo na operacionalização do Processo de Enfermagem.

Resumen

Objetivo: Validar el contenido del diagnóstico de enfermería Interrupción de los procesos familiares en mujeres privadas de la libertad.

Métodos: Estudio metodológico de validación de contenido del diagnóstico de enfermería Interrupción de los procesos familiares, realizado con 24 especialistas, en el período de agosto a diciembre de 2019. Los especialistas fueron enfermeros, psicólogos y asistentes sociales con experiencia clínica y teórica en el campo de estudio. Este reclutamiento se realizó a partir de la plataforma Lattes, del universo relacional del investigador y técnica de muestreo "snow ball". Los datos fueron analizados por el programa estadístico R y el Índice de Validez de Contenido fue calculado con base en el modelo de la diversidad predictiva. También se calcularon los Intervalos de confianza de 95 % y se aplicó la prueba de Wilcoxon, en la que el valor de referencia para la hipótesis fue el Índice de Validez de Contenido $\geq 0,9$.

Resultados: Se identificaron 12 elementos del diagnóstico estudiado que presentaron significación estadística, excepto el ítem "ausencia de la figura paterna" que fue excluido de la propuesta diagnóstica. El ítem "depresión" también fue excluido, de acuerdo con lo sugerido por los especialistas, a pesar de su significación estadística.

Conclusión: El contenido del diagnóstico de enfermería Interrupción de los procesos familiares en mujeres privadas de la libertad fue considerado válido por los especialistas y puede nortear la práctica clínica del enfermero, sobre todo en la operacionalización del Proceso de Enfermería.

Introduction

The increase in female incarceration rates is considered a phenomenon that causes negative impacts on women and their families, such as disruption of affective and family relationships, weaknesses in the support network, development of common mental disorders, anxiety, stress and interruption of motherhood exercise.⁽¹⁾

In Brazil, women in deprivation of liberty are generally black, single and have a low educational and socioeconomic level. They are exposed to situations of vulnerability, family neglect and violation of rights throughout their lives, and the most frequent crime is related to drug trafficking.^(2,3)

Prison reinforces violence and stigma on these women. Thus, health professionals should pay attention to the identification of possible weaknesses between their family processes. Nurses, who act as members of the prison system's health team, can contribute to the necessary changes to the health and physical, emotional and social well-being of this population.⁽⁴⁾

In addition, nurses must plan and implement effective strategies, based on scientific evidence and health education. Nursing Diagnoses (ND), which correspond to the human responses of persons, family or community related to the health-disease process, are among the main tools that can help them in decision-making and clinical reasoning.^(4,5)

In this context, nurses' practice should reach vulnerable populations, such as women deprived

of their liberty, based on the identification of ND, which must reflect the real health situations, while taking into account the different cultures and requirements of certain groups of people.^(4,5)

Among the NDs that are relevant to women deprived of their liberty, there is Interrupted Family Processes,⁽⁶⁾ proposed in 1998 by the NANDA-I Taxonomy. This ND is categorized in the Roles and Relationships domain and in the Family Relationships class. In the 11th edition of NANDA-I, it has 18 defining characteristics, three related factors, six at risk populations and one associated condition.⁽⁵⁾

There are studies that bring the NDs identified in the population of women deprived of liberty.^(7,8) It should be noted that the diagnoses may have inconsistencies that interfere with the process of diagnostic inference by the examiner. This is because female incarceration and the consequent family frailties are phenomena that present a high degree of subjectivity.⁽⁹⁾ In this sense, the present study advances by filling the existing gaps in Interrupted Family Processes ND.

The diagnostic components, i.e., academic title, related factors, associated conditions, populations at risk and defining characteristics, must clearly and objectively represent a given phenomenon. Otherwise, nurses may have difficulties regarding the understanding, objectivity and accuracy of these components, which may compromise the development of specific and effective nursing interventions.⁽⁹⁾

Validation studies of Interrupted Family Processes ND have not yet been carried out in women deprived of their liberty. The conduction of the aforementioned studies was necessary to contribute to improving and updating NANDA-I Taxonomy and, consequently, operationalizing the Nursing Process.

Considering the above, the NANDA-I Taxonomy recommends that NDs be periodically reviewed and validated. This strategy can reduce existing gaps in the nurse-client and theory-practice interface. Therefore, this study aimed to validate the Interrupted Family Processes ND content among women deprived of their liberty.

Methods

This is a methodological study of content validation by experts, which aims to estimate the proportion of experts' agreement in relation to ND elements and their operational and conceptual definitions.⁽⁹⁾

Professionals with academic training in nursing, psychology or social work, with practical and theoretical experience on the subject of ND, families and/or prisons and who had updated their resumes in the last 12 months, were included in the sample. The inclusion of other health professionals as experts, in addition to nurses, was based on the principles of interdisciplinarity and multiprofessionality in which the diagnosis under study is inserted.⁽¹⁰⁾

The determination of the number of experts was based on the sample calculation proposed by Lopes and Silva:⁽⁹⁾ $n = (Z1-\alpha/2 \times s \div \epsilon)^2$, in which 95% confidence level ($Z1-\alpha/2 = 1.96$), 0.17 standard deviation (s) and 0.07 sampling error (ϵ) were considered, with a minimum sample of 23 judges.

Experts were recruited through the *Plataforma Lattes* (a platform used to check on professionals' resumes) on the website of the Brazilian National Council for Scientific and Technological Development (CNPq - *Conselho Nacional de Desenvolvimento Científico e Tecnológico*), using the terms women, ND and prisons. In addition to this, experts were appointed from the researcher's and advisors' relational universe, and the snowball sam-

pling technique was carried out, in which participants appointed others.

To determine experts' level of expertise, clinical and academic experience was considered. Each evaluator was asked about: a) practical experience in years; b) length in research group focused on nursing taxonomies, deprivation of liberty and/or families; c) academic title work aimed at ND deprivation of liberty or families; d) scientific publications in the thematic areas of ND, deprivation of liberty or families; e) degree.

Then, scores were assigned to each category. The mean obtained in the formula $X+Y+Z \div 3$ allowed expert classification in categories,⁽¹¹⁾ namely: 1. novice, 2. advanced beginner, 3. competent, 4. proficient, and 5. expert (Table 1).

Table 1. Expert classification on the level of expertise

Score	Practical experience		Academic experience Scientific knowledge		
	Length of practice** (x)	Length in research group** (Y)	Academic title (Z ₁)	Academic title work (Z ₂)	Scientific production (Z ₃)
0	-	-	Graduated	No	No
1	1-5	1-4	Expert	Yes	Yes
2	6-10	5-7	Master's degree holder	-	-
3	11-15	8-10	PhD holder	-	-
4	16-20	11-13	-	-	-
5	21 and more	14-16	-	-	-

**In years; +Intervals built from length of practice and minimum and maximum research group

The experts were invited to participate in the study through an invitation letter sent by e-mail address. Upon acceptance, the data collection instrument and the Informed Consent Form (ICF) were sent to e-mail address or in print.

The data collection instrument was divided into two parts, based on the material used by other authors.⁽¹²⁾ The first part refers to judge characteristics, with identification and experience data, such as sex, age, city where they work, academic title, current occupation, length of professional training, experience in teaching and care with nursing terminologies and/or prisons and/or families, length of practice and participation in research groups on nursing terminology.

The second part of the instrument included the conceptual and operational definitions of

the defining characteristics, related factors, at risk populations and associated conditions, for assessment of experts, who judged all items regarding relevance.⁽¹³⁾

For this purpose, a Likert-type scale was developed for each item, which varied between five levels, i.e.: (1- Totally disagree; 2- Partially disagree; 3- Neither agree nor disagree; 4- Partially agree; 5- Totally agree). A deadline of 20 days was stipulated for filling out the data collection instrument.

The data were tabulated in Microsoft Office Excel 2016 and analyzed by R, version 3.2.0. Descriptive analysis was by calculating absolute and relative frequencies, in addition to 95% confidence intervals for categorical variables. To analyze item relevance, Content Validity Index (CVI) was calculated based on the predictive diversity model, which refers to the assessment of experts weighted with the level of expertise.^(9,11,12)

To verify data normality, the non-parametric Shapiro-Wilk test was used, and CVI distribution non-normality was verified. Thus, for each item, the estimate of the median of CVI was verified, 95% Confidence Intervals (CI) for each median, and the Wilcoxon test was applied. $CVI \geq 0.9$ was used as a reference value for the null hypothesis. The item was considered valid for Interrupted Family Processes ND in women deprived of liberty if Wilcoxon test's p-value was greater than 0.05.

This study complied with the recommendations of Brazilian National Health Council (CNS - *Conselho Nacional de Saúde*), Resolution 466/12, with regard to research conducted with human beings. This study obtained a favorable opinion (3,385,614) from the Research Ethics Committee (REC) of the *Universidade Federal de Pernambuco* (UFPE), with CAAE (*Certificado de Apresentação para Apreciação Ética* - Certificate of Presentation for Ethical Consideration) 12357419.6.0000.5208). Data collection began by signing the ICF.

Results

Based on the inclusion criteria, 125 experts were selected and invited. However, 24 agreed to partic-

ipate in the study and answered the data collection instrument correctly and in a timely manner.

Most experts were female (91.7%), nurses (70.8%), from the Northeast region (70.8%), with a PhD degree (62.5%), professors from educational institutions (70.8%) and with a thematic area of study focused on ND (37.5%). The median age variable was 36.5 years ($IR \pm 8$).

Regarding the level of expertise, most experts had 11 to 15 years of practical experience (41.7%), 1 to 4 years in research groups (37.5%), academic title work in the field (87.5%) and higher scientific production in prisons and families (70.8%). The level of expertise competent was identified more frequently among the sample (41.7%), followed by advanced beginner and proficient (29.2%). Novice and expert levels were not evidenced (Table 2).

Table 2. Expertise level characteristics

Variables	n(%)
Length of practice	
11 to 15 years	10(41.7)
6 to 10 years	6(25.0)
21 years and more	4(16.7)
1 to 5 years	3(12.5)
16 to 20 years	1(4.2)
Length in research groups in the areas	
1 to 4 years	9(37.5)
8 to 10 years	5(20.8)
None	5(20.8)
5 to 7 years	4(16.7)
14 to 16 years	1(4.2)
11 to 13 years	(-)
Academic title work in the field	
Yes	21(87.5)
No	3(12.5)
Scientific production	
Prisons and/or family	11(45.8)
Nursing	6(25.0)
Nursing and prisons/family	6(25.0)
None	1(4.2)
Level of expertise	
Competent	10(41.7)
Advanced beginner	7(29.2)
Proficient	7(29.2)
Novice	(-)
Expert	(-)

Regarding item relevance, it is noted that the ND components presented median CVI below 0.9, i.e.: Alcohol and/or Drug Consumption (CVI = 0.88), Father Absence (CVI = 0.87), and Depression (CVI = 0.87). When considering CI, it was found that Depression and Alcohol and/or Drug Consumption had satisfactory CVI values, and the Wilcoxon test of these items presented values of $p > 0.05$, which confirms their statistical va-

Table 3. Validation of Interrupted Family Processes nursing diagnosis items in women deprived of liberty (n=24)

Terms	Shapiro-Wilk test		CVI	Confidence interval (95%)		Wilcoxon test	
	W ¹	p-value		LL*	UL**	V	p-value
Related factors							
Decreased or Absent Contact with Family Members	0.434	<0.001	1.00	1.00	1.00	1770	0.997
Alcohol and/or Drug Consumption	0.611	<0.001	0.88	0.87	1.00	1128	0.140
Domestic Violence	0.201	<0.001	1.00	1.00	1.00	2415	1.000
Father Absence	0.713	<0.001	0.87	0.75	0.88	903	0.009
Discrimination	0.564	<0.001	1.00	0.88	1.00	1485	0.845
Associated conditions							
Low Socioeconomic Level	0.590	<0.001	1.00	0.87	1.00	1378	0.648
Mental Disorders	0.337	<0.001	1.00	1.00	1.00	2145	1.000
Community Violence	0.573	<0.001	1.00	0.88	1.00	1485	0.845
Depression	0.655	<0.001	0.87	0.75	1.00	1081	0.089
History of Previous Incarceration	0.241	<0.001	1.00	1.00	1.00	2346	1.000
Family Incarceration and/or History	0.383	<0.001	1.00	1.00	1.00	1953	1.000
At risk populations							
Incarcerated Mothers	0.241	<0.001	1.00	1.00	1.00	2346	1.000
Defining characteristics							
Ineffective Role Performance	0.337	<0.001	1.00	1.00	1.00	2145	1.000
Previous History of Incarceration	0.246	<0.001	1.00	1.00	1.00	2346	1.000
Anxiety	0.552	<0.001	1.00	0.87	1.00	1540	0.911
Stress	0.476	<0.001	1.00	1.00	1.00	1770	0.997
Impaired Attachment	0.523	<0.001	1.00	1.00	1.00	1653	0.979
Dysfunctional Family Processes	0.470	<0.001	1.00	1.00	1.00	1653	0.979
Disrupted Family Roles	0.457	<0.001	1.00	0.88	1.00	1540	0.911

¹Wilcoxon test; *Lower limit; **Upper Limit

lidity. Father Absence presented CVI < 0.9 and p value <0.05, being excluded from the final proposal (Table 3).

Discussion

The findings obtained are relevant for nursing its area, as they allow nurses to review important concepts in the family health of women deprived of liberty field. Validation studies with Interrupted Family Processes ND can contribute to the implementation of the ND Process, making the diagnosis precise and accurate.^(5,6)

Regarding the profile of the experts who composed the sample, there was an expressive number of women, with a mean age of 36.5 years, nurses and with PhD. Another validation study of ND aimed at vulnerable populations, with people in deprivation of liberty,⁽¹⁰⁾ presented a similar expert profile.

Considering the inclusion of professionals in the field of psychology and social service as diagnosis evaluators, it is noteworthy that there were no significant differences regarding the ND judgment. In order to eliminate possible gaps when judging the items, the strategy was to include the definitions of the elements

that composed the diagnosis in the data collection instrument. The inclusion of professionals from other areas as evaluators in ND validation research is still incipient; however, the creation of methodological strategies to achieve them is fundamental to obtain a diversified view of complex phenomena.⁽¹⁰⁾

Nevertheless, there is a gap between the population deprived of freedom and health professionals, especially nursing professionals, since it is observed that the group of experts in the study is closer to the academy than to direct care to the population in deprivation of liberty.

In relation to prison workers, few are health professionals, which is considered as a limiting factor to access to health care. These facts exemplify the difficulty of contacting nurses and other health professionals with practical experience in the theme of deprivation of liberty. Moreover, there are recommendations for the minimum length of experts' clinical experience to be around five years.^(1,9) In this regard, evaluators' length of experience is consistent with the one proposed, and it was considered satisfactory.

No high level of expertise was identified in the group of participants. The expert profile assessed in

another study⁽¹⁰⁾ presented similar characteristics to this study. It is noteworthy that the inclusion of stricter criteria to classify the level of expertise can justify the difficulty of obtaining professionals with a high level of knowledge – expert.⁽¹²⁾

It is emphasized that the items assessed were considered valid for Interrupted Family Processes ND in women deprived of liberty, when Wilcoxon's p-value was greater than 0.05.

Alcohol And/Or Drug Consumption item (p-value = 0.140) was considered valid. Regarding its definition, experts recommended using the standard recognized by the World Health Organization (WHO).⁽¹³⁾ For some evaluators, alcohol experimental or recreational consumption, presented in the definition, is not a risk factor for interruption of family processes.

There is an association between alcohol and illicit drug dependence with increased crime and the perpetuation of violence, with damage to women's health, as a result of social and family damage, causing losses, weaknesses and breaking ties between them and their relatives.⁽¹⁴⁾

Based on the above, the investigation of all consumption patterns was added to the item's conceptual and operational definition, according to the WHO.⁽¹⁵⁾ The label was also adjusted for Alcohol and Other Drug Consumption, in order to differentiate the inclusion of alcohol and other legal and illicit substances.

Another validated item was Low Socioeconomic Level (p-value = 0.648), a situation often present in women deprived of liberty.⁽¹⁵⁾ This aspect, when associated with alcohol and illicit drug dependence, puts these women in situations of extreme social and health vulnerability,⁽¹⁷⁾ and also has repercussions on family processes.⁽⁶⁾

Although Depression associated condition was considered statistically valid and relevant for the phenomenon (p-value = 0.089), the item was questioned as to its relevance. Experts recommended its exclusion, since the investigation of mental disorders among women deprived of liberty and their families is already planned.⁽¹⁷⁾

Community Violence was categorized as related factor of ND and was considered valid (p-value =

0.845). However, experts suggested a new categorization of the element for associated conditions, because it is a diagnostic component to which nursing professionals have an important power of action, both in prevention and identification.

Community violence is a challenge to women's lives, especially since it includes aspects of drug trafficking. Most women in deprivation of liberty's social context is permeated by the commercialization and consumption of licit and illicit substances throughout their life trajectory.⁽¹⁸⁾

Incarceration rates among women show a relationship with cannabis planting and crack marketing. Another substance widely used by this population is marijuana, in which planting and marketing lead women to prison.^(19,20)

In the face of situations of violence, nurses are recognized as a professional capable of working with the victims, since they are co-responsible for care. The set of measures to be taken are the identification of violence, embracement, sensitive listening, guidance on their rights so that women are able to make decisions consciously and autonomously.⁽²¹⁾

The participation of nurses in violence prevention is indispensable, especially in primary care services, in which professionals work with families at home, in health services, in schools and in the community. In this sense, we opted for recategorizing Community Violence for related factor, since nurses can act accurately and clearly in its prevention and identification.⁽²²⁾

Also, Father Absence was excluded, since it did not present statistically significant values (p-value < 0.05). Parents play caregiver roles and provide support to women so that they deal with stressful situations; however, their absence is not related to interruption of family processes.⁽²³⁾

Decreased or Absent Contact with Family Members, Domestic Violence, Discrimination, Mental Disorders, History of Previous Incarceration, Family Incarceration and/or History, Incarcerated Mothers, Ineffective Role Performance, Previous History of Incarceration, Anxiety, Stress, Impaired Attachment, Dysfunctional Family Processes, and Disrupted Family Roles items were considered valid for the population of women deprived of their lib-

erty, since Wilcoxon test's p-value was greater than 0.05. Furthermore, no changes were required in their labels and definitions.

These items are focused on the context of vulnerability that women deprived of liberty are inserted, which interferes in the family relationship. Thus, nurses can operationalize the Nursing Process in order to improve existing family weaknesses.

The limited number of experts is a study limitation. According to the method of ND content validation by experts, the weighted mean of CVI in small samples of experts can generate biased values and, consequently, wrong conclusions about the analyzed material. Moreover, there is the subjectivity of the phenomenon under study that can make the assessment process of judges complex.

Conclusion

The content Interrupted Family Processes elements (NANDA-I Taxonomy), in women deprived of liberty, was considered appropriate and valid by experts. The suggestions made by the evaluators were included and refined. It is suggested to carry out the subsequent stage, clinical validation, in order to refine the findings of this research, as well as the development of studies aimed at women deprived of their liberty and their families.

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Collaborations

Jordão RRR, Sousa SMA, Fernandes FL, Lopes MVO, Manguiera SO, Silva GP, Mendes RCMG,

Morais SCR, Linhares FMP declare that they contributed to study design, data analysis and interpretation, article writing and critical review of intellectual content. All authors approved the final version to be published.

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