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Validation of Diagnostic Elements of the Nursing Diagnosis 00146 Anxiety in Midwifery

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ABSTRACT

Aim: The aim of the work was to validate diagnostic elements of the nursing diagnosis Anxiety 00146 by a selected sample of experts-midwives in the Czech Republic, and see which diagnostic elements they consider major and minor.

Methods: The study followed Fehring Diagnostic Content Validity Model. A set of experts included 34 midwives from the Czech Republic who received at least 4 points according to the modified Fehring criteria. Experts had bachelor's degree in midwifery or minimal five years of clinical practice. For accessing the significance of diagnostic elements we built a measurement instrument containing 79 items – the diagnostic elements listed in the classification system of NANDA-International.

Results: Out of the 79 defining characteristics considered by experts-midwives five characteristics were described as major (score ≥ 0,75): internal restlessness (0,76), increased blood pressure (0,75), tachycardia (0,75), tachypnea (0,75), threats to the status of role in health (0,76).

Conclusion: The results of this study indicate that midwives consider only five defining characteristics as major for assesing anxiety of mothers coming to the delivery room for delivery.

KEY WORDS

nursing diagnosis, anxiety, validation, DCV model, expert, midwifery

INTRODUCTION

Nursing assessment, diagnosis, validation of the diagnosis and care assessment are integral parts of the nursing science and science in midwifery. The specific feature of nursing science is the focus on deficient human needs and remedy of the deficiency. Registered midwives recognise and identify deficient needs of their clients using the NANDA-International classification system (Marečková, 2006, p. 17). They are responsible for a due assessment of the client, correctly suggesting interventions for clients coming to the delivery rooms to give physiological birth. The NANDA-International (hereafter referred to as „NANDA-I") specifies the diagnoses according to diagnostic element (these include the defining characteristics, related factors and risk factors, definitions and codes). The defining characteristics help in recognising the nursing diagnoses (Marečková, 2006, p. 17). According to Creason (2004, p. 123) and Whitley (1999, p. 5), validation of the nursing diagnoses should be carried out in three steps – conceptual analysis, expert validation and clinical validation using tools for measuring the diagnostic characteristics. According to Holmanová (2006, p. 28), the validation by experts determines the rate of agreement among experts in the area of defining characteristics, related and risk factors in a selected NANDA-I diagnosis. The diagnostic domain No. 9 „Coping/Stress Tolerance" provides information about the nursing diagnosis in the field of coping with life situations. It offers nursing diagnosis, or standardised terminology in nursing issues, which belong to human need to cope with a response to trauma, cope with stress and related brain and nerve reactions (Marečková, 2006, p. 171).

Standardised nursing diagnoses in this domain are divided into three classes. The latest NANDA-I Taxonomy II puts the nursing diagnosis Anxiety 00146 into the 2nd class „Coping Responses". This class is reserved to the nursing diagnoses, i.e. standardised designation of common nursing problems, in the area of coping with stress related with the outside of an individual (Marečková, 2006, p. 178).

In recent years, the validation of nursing diagnoses was carried out predominantly in nursing (Tabaková et al., 2011; Zeleníková, Žiaková, 2012) and no validation in the Czech Republic has yet been conducted in the field of midwifery. Without documenting the diagnostic elements, midwives cannot confirm the validity of the selected diagnosis. Diagnostic precision and its validation depend on due assessment and the choice of diagnostic elements.

The nursing diagnosis „Anxiety" is defined by NANDA-I as „A vague, uneasy feeling of discomfort or dread accompanied by an autonomic response, with the source often nonspecific or unknown to the individual; a feeling of apprehension caused by anticipation of danger. It is an alerting signal that warns of impending danger and enables the individual to take measures the dealt with threat." (Marečková, 2006, p. 180).

Midwives in the Czech socio-cultural context are not familiar with research in midwifery or with testing the presence of diagnostic elements of each nursing diagnosis. The reason is that research in midwifery is still at the beginning and has only been launched in recent years. Emphasis should be laid in high-quality education in the area of midwifery at Czech universities. Science and research should also be focused on midwives in community care, in health care facilities and midwives who take part in the educational process as mentors or practical guides to students.

Literature research revealed that validation of the research diagnosis Anxiety 00146 is not sufficiently covered. In the nursing science, the diagnosis Anxiety 00146 has been dealt with by authors Whitley (1994), Oliveira (2008), Zeleníková and Žiaková (2012). However, in midwifery, this nursing diagnosis has not yet been investigated from validation perspective. The reason from choosing this nursing diagnosis is the fact that anxiety is an unpleasant feeling and condition and unlike with fear, we do not realise its immediate care, i.e. a concrete object or situation causing it. It is a reaction to premonition or unknown threat (Zacharová, Šimíčková-Čížková, 1997, p. 136).

SAMPLE AND METHODOLOGY

For the content validation of the nursing diagnosis „Anxiety", the Fehring's Diagnostic Content Validity Model was used (Fehring, 1986). It is a retrospective model in which a set number of experts evaluate diagnostic elements of a nursing diagnosis, assign significance to each characteristic and use criteria for determining critical and noncritical diagnostic elements (Zeleníková, Žiaková, 2009, p. 414). A simple purposive sampling was employed using the following criteria: at least Bachelor's degree or minimum of 5 years of clinical experience as midwife. All midwives addressed could have expresses their agreement with participation or could decline on voluntary basis. In total, 43 midwives-experts were addressed and 34 of them returned the record sheet. The return rate was 79%. The record sheet was distributed by the authors themselves. Data were collected anonymously. There was a sealed box at the workplace to hand in the sheets securely and anonymously. The survey was conducted in University Hospital in Olomouc and Hospital Valašské Meziříčí simultaneously from November – December 2012. The tool (the record sheet) to assess the significance of diagnostic elements was created using the diagnostic elements of the nursing diagnosis from NANDA-I, Taxonomy II. It contained 79 items (63 defining characteristics and 16 related factors). The tool did not contain any demographic questions because this was not part of the research. Midwives marked the significance of defining characteristics and related factors on a Likert scale from 1 to 5 (5 – very characteristic, 4 – considerably characteristic, 3 – somewhat characteristic, 2 – very little characteristic, 1 – not at all characteristic). For each characteristic, a weighted score was calculated by summing the assigned weights to each answer (5 = 1; 4 = 0.75; 3 = 0.5; 2 = 0.25; 1 = 0) divided by the total number of answers. Defining characteristics and related factors with a weighted score above 0.75 were considered critical, characteristics with the weighted value between 0.75–0.5 were considered noncritical. Characteristics with the weighted score below 0.5 were not considered representative. The data were processed using MS Excel 2010.

RESULTS

Out of the 63 defining characteristics of the nursing diagnosis „Anxiety", the midwives judged the following as critical characteristics (weighted score ≥ 0.75): *Internal restlessness* (0.76), *Increased blood pressure* (0.75), *Tachycardia* (0.75), *Tachypnea* (0.75). Out of the 16 related factors, the experts judged the following critical *Threat to role function/health status* (0.76).

Table 1 Main diagnostic elements of the nursing diagnosis 00146 Anxiety

Diagnostic element	$\bar{x}$ (σ)	score
Internal restlessness (DC)	4.03 (1.18)	0.76
Increased blood pressure (DC)	4.00 (0.96)	0.75
Tachycardia (DC)	4.00 (1.04)	0.75
Tachypnea (DC)	4.00 (1.00)	0.75
Threat to role function/health status (RF)	4.06 (0.95)	0.76

$\bar{x}$ – average value, **σ** – standard deviation

Table 2 shows the 40 characteristics which were marked as noncritical diagnostic elements

Table 2 Noncirtical diagnostic elements of the nursing diagnosis 00146 Anxiety

Diagnostic element (only DC)	$\bar{x}$ (σ)	score
Fear	3.94 (1.28)	0.74
Apprehension	3.88 (1.20)	0.72
Uncertainty	3.79 (1.16)	0.70
Anxiety	3.71 (1.10)	0.68
Fidgeting	3.67 (0.72)	0.67
Feeling of inadequacy	3.65 (1.16)	0.66
Palpitation	3.65 (1.05)	0.66
Reports concerns due to changes in life events	3.62 (1.31)	0.65
Fear of unspecified consequences	3.59 (0.97)	0.65
Nervousness	3.55 (1.13)	0.64
Faintness	3.56 (1.17)	0.64
Vigilance	3.52 (1.26)	0.63
Insomnia	3.50 (1.04)	0.63
Worried	3.53 (1.19)	0.63
Anguish	3.50 (1.31)	0.63
Abdominal pain	3.53 (1.01)	0.63
Fatigue	3.47 (1.01)	0.62
Respiratory difficulties	3.44 (1.26)	0.61
Distressed	3.41 (1.09)	0.60
Helplessness	3.35 (0.97)	0.59
Tendency to blame others	3.35 (1.33)	0.59
Anorexia	3.32 (1.57)	0.58
Diminished ability to solve problems	3.32 (1.10)	0.58
Sleep disturbance	3.27 (0.93)	0.57
Cardiovascular excitation	3.24 (1.16)	0.56
Confusion	3.21 (1.09)	0.55
Weakness	3.21 (1.16)	0.55
Increased tension	3.18 (0.90)	0.55
Blocking of thoughts	3.15 (0.89)	0.54
Focus on self	3.15 (1.11)	0.54
Persistent increased helplessness	3.15 (1.03)	0.54
Tremor	3.15 (0.91)	0.54
Nausea	3.15 (0,81)	0.54
Impaired attention	3.15 (0.84)	0.54
Irritability	3.14 (0.99)	0.54
Rattled	3.09 (1.12)	0.52
Diarrhoea	3.09 (0.78)	0.52
Increased wariness	3.06 (0.87)	0.51
Decreased pulse (bradycardia)	3.06 (1.41)	0.51
Decreased blood pressure (hypotension)	3.03 (1.40)	0.51

$\bar{x}$ – average value, **σ** – standard deviation

Table 3 summarises the group of noncritical related factors for the nursing diagnosis Anxiety.

Table 3 Related factors of the nursing diagnosis 00146 Anxiety

Related factors	$\bar{x}$ (σ)	score
Threat of death	3.94 (1.14)	0.74
Change in interaction patterns	3.79 (1.08)	0.70
Stress	3.77 (1.07)	0.69
Change in economic status	3.76 (1.09)	0.69
Change in role status	3.68 (1.10)	0.67
Substance abuse	3.67 (1.29)	0.67
Change in environment	3.62 (1.06)	0.65
Threat to or change in role status	3.59 (1.14)	0.65
Interpersonal transmission	3.50 (1.19)	0.63
Unconscious conflict about essential goals of life	3.48 (1.13)	0.62
Exposure to toxins	3.45 (1.30)	0.61
Situational/maturational crises	3.37 (0.80)	0.59
Unmet needs	3.21 (0.72)	0.55

$\bar{x}$ – average value, **σ** – standard deviation

DISCUSSION

In NANDA-I, the diagnostic elements of the nursing diagnosis „Anxiety" are listed in 7 groups (behavioural, affective, bodily, sympathetic, parasympathetic, cognitive, related factors). Out of 63 defining characteristics, which are listed in the above mentions groups, 4 were judged critical: restlessness (behavioural), increased blood pressure (sympathetic), tachycardia (sympathetic), and tachypnea (sympathetic). Out of 16 related factors, the factor identified as critical was a threat to role function/health status. Whitley (1994, p. 147) identified three main diagnostic elements of the diagnosis Anxiety in a sample of 233 nurses. These were apprehension, cardiovascular excitation, and increased tension. Seven characteristics were marked as insignificant (score lower than 0.5) attack behaviour, decreased blood pressure, decreased pulse, faintness and fainting, terrified, tremor, and twitching. The experts taking part in the study noted the need to distinguish levels of anxiety (low, slight, serious, severe) in order to maximise the effect of nursing care. In a Brazilian study by Oliveira et al. (2008, p. 106), the validity of the nursing diagnosis Anxiety was verified in a group of 120 nurses. Out of 71 diagnostic elements, the experts marked 8 as critical (weighted score above 0.8). These were: anguish, fidgeting, increased tension, insomnia, irritability, jittery, preoccupation, and sleep disturbance.

In comparison with the study by Whitley (1994, p. 149), the experts considered a larger part of the diagnostic elements noncritical. The total number of noncritical diagnostic elements (weighted score lower than 0.75) is very large (40 items) to be used in practice. The results of other conducted studied may contribute to specify further the characteristics. Validation of di-

agnostic elements is crucial for keeping explicit documentation of care provided by midwives in the delivery room. Only documentation with the correct terminology and exact records can be statistically processed and the results may be then used to substantiate quality of care, cost and efficiency of care, or as the case may be, to provide arguments in dealing with socioeconomic and legal aspects of health care.

CONCLUSION

The results of the study show that for the selected group of midwives (experts), the critical factors in identifying the nursing diagnosis „Anxiety" are: internal restlessness, increased blood pressure, tachycardia, tachypnea and threat to role function/health status. Other characteristics listed in the NANDA-I may be considered nonspecific for the diagnosis in question. Validation of the nursing diagnosis „Anxiety" is crucial for providing adequate care in midwifery with clearly defined diagnostic components. The validation of the nursing diagnosis 00146 Anxiety will be the topic of further research. Based on the identification of crucial diagnostic elements, further research will focus on selection of appropriate components of the NOC classification. These selected components will be translated into Czech for the use in midwifery in the Departments of Gynaecology and Obstetrics of University Hospital in Olomouc and Hospital Valašské Meziříčí. Subsequently, a selection of NIC components will be carried out based on NOC components. Selected interventions and their contents will be translated into Czech and used by midwives in the Departments of Gynaecology and Obstetrics of University Hospital in Olomouc and Hospital Valašské Meziříčí.

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