How can the application of the nursing process help to women with anxiety nursing diagnosis?
¿Cómo ayuda la aplicación del proceso enfermero a las mujeres con diagnóstico ansiedad?

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ABSTRACT

**Purpose:** To evaluate nursing group interventions in women with anxiety nursing diagnosis by self NOC result of anxiety.

**Methodology:** Pre-experimental pretest-posttest study composed by a single group of twelve women in a Mental Health Center of the Region of Murcia. The participants were a group of women in adulthood presenting the nursing diagnosis anxiety. Each patient received 8 group nursing interventions. Before and after the group intervention, a nursing outcome criteria is filled for each patient. The following nursing interventions were used: Anxiety reduction (5820), simple relaxation therapy (6040), health education (5510), group education (5604) and support group (5430). The independent variable was nursing interventions and the dependent variable was NOC punctuations, being used as an assessment tool.

**Results:** The analysis of the NOC result anxiety self-control shows significant differences. Before the intervention, the mean was 22.5 and 37.8 after it with standard deviations of 3.22 and 7.11 for each one. The median was 21 before interventions and 37.5 after them. The Wilcoxon test shows a Z value of -2.98 with p 0.003.

**Conclusion:** The state, behaviour and perception of patients improve with nursing interventions received. The global punctuation of used clinical indicators is a good tool to measure nursing intervention effects.

**Keywords:** Nursing Outcomes Classification (NOC); nursing interventions; anxiety; nursing diagnosis;
Nursing Process

RESUMEN

Objetivo: Evaluar las intervenciones grupales de enfermería en mujeres con diagnóstico enfermero ansiedad mediante el resultado NOC autocontrol de la ansiedad.

Material y método: Estudio pre-experimental del tipo pretest-postest de un solo grupo realizado en un Centro de Salud Mental de la Región de Murcia a un grupo de 12 mujeres en edad adulta que presentan el diagnóstico enfermero ansiedad. Se realizó a cada paciente la valoración de enfermería por Patrones Funcionales de Salud (PFS) antes y después de la asistencia a las 8 sesiones de intervenciones enfermeras grupales. Al comenzar y al finalizar el grupo, se cumplimentó el criterio de resultado NOC autocontrol de la ansiedad. Las intervenciones enfermeras grupales fueron a) disminución de la ansiedad (5820), terapia de relajación simple (6040), educación sanitaria (5510), enseñanza grupo (5604) y grupo de apoyo (5430). Se tomó como variable independiente las intervenciones enfermeras y como variable dependiente las puntuaciones del resultado NOC, empleándose como instrumento de evaluación.

Resultados: El análisis del resultado NOC autocontrol de la ansiedad nos muestra diferencias significativas. Antes de las intervenciones, la media presenta el valor 22.5 y tras las mismas de 37.8 con una desviación típica de 3.22 y 7.11 respectivamente. La mediana antes y después de las intervenciones corresponde con los valores 21 y 37.5. El parámetro del test de los rangos de Wilcoxon corresponde con un valor de Z igual a -2.98 con una p igual a 0.003.

Conclusiones: El estado, conducta y percepciones de las pacientes del grupo medido con el resultado autocontrol de la ansiedad, mejora tras recibir las intervenciones enfermeras. La puntuación global de los indicadores empleados en este resultado ha sido apropiada como medida de los efectos de las intervenciones.

Palabras clave: Clasificación de resultados de enfermería (NOC); intervenciones de enfermería; ansiedad; diagnóstico enfermero; proceso de enfermería.

INTRODUCTION

Anxiety disorders are the most common disorders in the general population\(^{1,2}\). Anxiety and distress are very common symptoms in consultation. Most of the time they are very unspecific. This can be seen as somatic hidings of dissatisfaction and frustration\(^{3}\).

Being male or female not only may impact in mental disorders prevalence, but it also may impact in symptoms manifestation and expression\(^{4}\). The most important aspects in women mental disorders prevalence are related to a sociocultural context and their life experiences. Furthermore, it is related to psychological factors, stereotyped models of women and men and also to male and female ideals\(^{5}\). The Gender and women’s mental health OMS 2002 report shows that there are sex differences in mental disorders rate between men and women. For example, anxiety disorders are twice as common in women than in men\(^{6}\).

Anxiety disorders have been a mental disorders study subject in several works like Spectrum and nosology: implications for DSM-V and International Statistical Classification of Diseases and Related Health Problems (ICD-10)\(^{7,8}\). However in the nursery field anxiety is defined by Taxonomy II, NANDA-1 as clinical judgment about human response to health or vital process problems or as the vulnerability of a person, family or community response. As a result, anxiety diagnosis is located in Domain 9: Coping/Stress Tolerance Class 2: Coping Responses.\(^{9}\).
Anxiety nursing diagnosis (00146), is defined as “Vague, uneasy feeling of discomfort or dread accompanied by an autonomic response (the source is often non-specific or unknown to the individual); an apprehension feeling caused by anticipation of danger. It is an alerting sign that warns of an impending danger and enables the individual to take measures to deal with that threat.”

Anxiety patient handling is difficult in Primary care. It is even more difficult if differential diagnosis, the need of a specific therapeutic and Special Care referral when needed is taken into account.

From a nursing therapeutic perspective, it is important to highlight Peplau’s contribution to Anxiety definition and treatment. In this theoretical frame, anxiety is defined as one of four psycho-biologically experiences used to identify and explain derived actions from experiences that result in constructive or destructive responses. This knowledge makes a basis for goal definition and nursing interventions.

In this context, relaxation and education nursing health interventions have been proved an effective way to help patients to control and improve anxiety symptoms. Nursing care plans have been proposed to help anxiety-stress patients. These care plans use, among others, the following: coping strategies, breath control, tension and muscle relaxation. Several studies found that nursing interventions like group education, relaxation therapy, health education, and Anxiety reduction improve anxiety response. As a result, a reduction in unrest and primary care visit is shown. Group education in women with anxiety nursing diagnosis has shown beneficial effects in reducing anxiety levels and improving abilities to face anxiety.

In daily clinical mental health practice, there is an increasing help demand from women with nurse anxiety diagnosis. However, there are not evidences enough about the effectiveness of nursing interventions (NIC) measured with nursing outcome criteria (NOC).

Consequently, an investigation in a community mental health environment is needed. With the aim to evaluate the improvement of the status of women with anxiety nursing diagnosis after the implementation of nursing interventions through NOC, result in anxiety self-control.

MATERIAL AND METHODOLOGY

Design
Quantitative pre-experimental pretest-posttest single group study.

Population and study scope
The study sample was done with women who had nursing anxiety disorder. The study period was from May, 1st to October, 30th 2014.

The investigation was carried out in Aguilas Mental Health Care Center, with the authorization of Quality Assurance committee of reference Hospital.
Patients were invited to join the group after signing a consent report. These women were selected from a medical derivation list from their reference therapist.

The sample was made up by a group of 12 women. Following the recommendations of Nursing Interventions Classification for group therapy and support group nursing interventions, which shows that 12 people is a maximum optimal group size.

**Inclusion and Exclusion Criteria**

Adult women aged between 18 and 65 years old who were diagnosed with nursing anxiety disorder (according to NANDA-I taxonomy) who wanted to participate in the study were included. Male people, severe mental illness patients (Schizophrenia, personality disorder, bipolar disorder and major depression), mental illness caused by psychotropic substances and mental illness caused by organic illnesses were excluded.

**Study variables**

The independent variable study was nursing interventions in the anxiety area to a group of women with nursing anxiety diagnosis. The dependent variable was Nursing Outcomes Criteria (NOC) anxiety self-control punctuations.

**Interventions and instrumentation**

The group was approached by a Mental Health Specialist Nurse with experience in group and individual anxiety care by nursing attention process. Each patient was assessed by using Functional Health Patterns (FHP) before nursing interventions. If the patients fulfilled anxiety diagnosis criteria according to NANDA-I taxonomy, they were then included in nursing group interventions in the anxiety area. At the end of the intervention, a second nursing evaluation was carried out. 8 group sessions were scheduled in one hour session per week. At the beginning and the end of each session, a form was filled to register the punctuations of anxiety self-control nursing outcome criteria. The goal consisted of identifying changes in patients’ response.

The nursing intervention implemented during the execution phase of the nursing process were: a) Anxiety reduction (5820), simple relaxation therapy (6040), health education (5510), group education (5604) and support group (5430).

The HFP instrumentation used was adapted to mental health by Fornés and the nursing outcome criteria anxiety self-control was included in The Nursing Outcome Classification.

**Statistical Analysis**

Descriptive statistics were used with the assistance of SPSS statistical computer software. Version 19.0. Measures of central tendency and dispersion were used for the analysis of the outcome criteria anxiety self-control. As the sample size occurs in less than 30 people, Wilcoxon signed rank-test non-parametric statistical hypothesis test were used to check the existence of differences between the two related samples.

**RESULTS**

According to sociodemographic variables, the average profile is a married woman who has her own family, primary studies and a mean age of 39. Concerning her employment situation, 33% are working while 25% are unemployed.

The analysis of self-control NOC, shows significant differences. On table I, Nursing Outcome statistical data is shown. In this table, statistical significant differences can be
shown between initial measurements and after interventions measurements, which represent interventions effects. Before interventions, the mean was 22.5. After interventions the mean was 37.8, with a standard deviation of 3.22 and 7.11 respectively. The median before the interventions was 21 and after the interventions it was 37.5. Wilcoxon signed rank-test parameter was \( Z = -2.98; p = 0.003 \).

**Table I. Nursing Outcome Criteria 1402 statistical analysis**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean pre</th>
<th>Standard Deviation pre</th>
<th>Mean post</th>
<th>Standard Deviation post</th>
<th>Mean pre</th>
<th>Mean post</th>
<th>Zw</th>
<th>P(0-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Outcome Criteria 1402</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>anxiety self-control</td>
<td>22.5</td>
<td>3.22</td>
<td>37.8</td>
<td>7.11</td>
<td>21</td>
<td>37.5</td>
<td>-2.98</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Before interventions, the patients’ response to their anxiety process was: increased blood pressure, worry, insomnia, breathing difficulties, irritability, difficulty in focusing and other defining characteristics of anxiety. After the interventions, an improvement in the patients’ anxiety response can be seen, with a raise in anxiety self-control nursing outcome criteria punctuations.

The following outcomes improved in all patients: a) Monitors intensity of anxiety (140201), b) relaxation techniques uses to reduce anxiety (140207), c) Monitoring the duration of episodes (140208), d) monitoring the physical manifestations of anxiety (140215), e) Monitoring the behavioral manifestations of anxiety (140216) and f) anxiety response controls (140217). As a result, patients’ efforts to improve their capacity to face anxiety response can be highlighted. (graphic 1).

**Graphic 1. Anxiety self-control Nursing Outcome Criteria evolution**

![Graphic 1. Anxiety self-control Nursing Outcome Criteria evolution](image_url)
DISCUSSION

According to some existing texts and our clinical practice, we planned to do group nursing interventions so that women learn how to handle their anxiety response in a more functional way. We highlighted the effectiveness of care through the change in FHP assessment with special mention to FHP 10, Coping-stress tolerance. According to some authors that support the interdependent character of FHP, another pattern has improved too, such as activity exercise and self-perception / self-concept.

The function health pattern assessment shows an improvement in the patients’ response with a decrease in breathing difficulties, high blood pressure, worry, irritability and the decrease of anxiety episodes duration among other defining characteristics.

Nursing outcome classification punctuation shows that nursing interventions help women with nursing anxiety diagnosis to improve their health status. Simple relaxation therapy and anxiety reduction of the care plan interventions match with Ocio Aracama and Fornés previous works used to improve anxiety self-control. The participants had acquired a procedure to apply when needed aiming to issue an opposite reaction to their anxiety status and therefore, leading to a positive health results.

Other nursing interventions like health education, teaching group and support group have provided some benefits in knowledge acquisition and abilities which women had applied to control their anxiety status. There are several studies that show positive results in group interactions with the aim of decrease and control anxiety status. However, more work by using nursing outcome criteria to evaluate health response has to be done regarding these types of interventions in women. That is why the interventions in Community Mental Health are so important. They are used to improve anxiety facing. According to Roy’s investigations, this improvement is achieved when nurses help the patient to face, in an effective way, the changes made in her changing environment.

Group intervention has been a matter of interest to the application of relaxation. In this way, a study carried out by a Mental Health center evaluates the effectiveness of group relaxation in women with anxiety disorder. Authors conclude that the treatment is effective in the reduction of temporary anxiety situations and to a lower degree in habitual tendency of anxious reactions. Another study, accomplished in patients with anxiety and depression, shows a reduction in symptoms at the end of nursing group interventions.

The absence of patient tracing, in the following months, to check whether the improvements are sustained over time can mean a study limitation and an absence of control group. Furthermore, the shortage of nursing investigations from a gender perspective in a mental health context by using standardized nursing languages difficulties the updating health results in this knowledge field.

CONCLUSION

Among the main study conclusions, the NOC nursing tool allowed us to measure patient status during care process and it helped us to know the improvement in patients’ response to nursing interventions.
Anxiety self-control NOC outcome that supports the investigation, allows us to measure the changes in the patients’ anxiety response study. In this way, the patients achieved a better anxiety reaction through nursing interventions. We think that nursing studies in mental health with nursing language and methodology should be encouraged.

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