

## Factors Contributing to Ineffective Management of Therapeutic Regimens in Chronic Patients During Nursing Consultations

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### **Abstract**

**Objective:** To analyze and identify the causes that produce ineffective management of the therapeutic regimen in chronic patients in nursing consultations.

**Methodology:** Descriptive, quantitative and qualitative study. Descriptive, quantitative, qualitative and inferential analysis (Chi-square test and ANOVA test). In the qualitative analysis, the results were labeled in four categories: Knowledge and skills of the user. Motivation and difficulties to take care of oneself. Family and social support. Relationship with the health team.

**Results:** 25 patients participated in the quantitative study and 6 in the qualitative one. They present an average of 4 pathologies, the most prevalent being Diabetes (80%), Obesity (76%), HTA (68%), COPD (12%), Heart disease and other processes (20%). In the analysis of the interviews, the greatest problems were: non-compliance with diet and physical exercise. Family support is given an important value and the relationship with the health team is positively weighted.

### **Keywords:**

Health, Heart disease, Family support, pathologies

## **Introduction**

In recent years, the health needs of the population have been changing: a higher prevalence of chronic diseases, dependencies, disabling diseases, HIV/AIDS, mental illness, etc. In short, these are health problems that require a treatment approach that is not only pharmacological, but all require long-term care, which is essential for the proper monitoring of these processes.

One of the greatest challenges faced by healthcare professionals when dealing with chronic patients is ensuring that they comply with the therapeutic plan that has been prescribed. Following a prescription, therapeutic adherence, is a complex process that is influenced by multiple factors such as those related to the patient, the healthcare professional, the healthcare system and the drugs themselves.<sup>1-</sup>

<sup>3</sup> These professionals include nurses, who in their therapeutic relationship with the patient work primarily through health education so that the user reaches an adequate level of training in their self-care, although sometimes, despite all the effort made, the patient has difficulties in achieving this objective, which is when non-compliance arises, the lack of adherence, which in nursing language is called Ineffective Management of the Therapeutic Regimen (IMTR).<sup>4</sup>

The importance of the study lies mainly in the fact that the main cause of therapeutic failure is the failure to achieve therapeutic objectives (weight loss, blood pressure control, optimisation of blood sugar levels, abandonment of toxic habits, etc.), all of which are risk factors for the prevalence and complications of chronic diseases derived from lifestyles. In this context, the conclusions reached by the WHO (2003) in the report entitled "Adherence to Long-Term Therapies.

Evidence for Action" <sup>5</sup> seem to be of great interest. It indicates that chronic diseases are the main cause of morbidity and mortality worldwide, and makes it clear that non-compliance with long-term treatment of chronic diseases is a major global problem that tends to increase in developed countries.

Chronic diseases are a major challenge that public health has had to face over the last half century, <sup>6</sup> a problem with serious repercussions at the individual, family and social levels in general. They are a major cause of the increase in health care costs, and it is estimated that in Western countries they are responsible for 75% of health care expenditure and more than 80% of drug expenditure. <sup>7</sup>

Our objectives with this study were to understand the sociodemographic and clinical-care characteristics of the population diagnosed with MIRT, as well as to analyze and identify the causes that produce it, relating these etiological factors with: the user's knowledge and skills in relation to the treatment, motivation and difficulties in taking care of themselves, family and social support and the healthcare team; and from a qualitative approach, to explore the reasons given by the people in the study for not following the therapeutic recommendations.

From our field of work, as Primary Care (PC) nurses, we understand that this is a major public health problem and the interventions we must carry out must be aimed at implementing existing strategies and evidence, reducing chronic diseases and the factors related to them, and nursing consultations, together with action at home and in the community, are the ideal place to apply all available measures.

## **Method**

This is a descriptive design with a double approach, quantitative and qualitative, carried out in the field of Primary Care. The study population is the users of nursing consultations, included in the Diabetes Care Process, HTA Program and Obesity Program, of an urban health center, who have been attending nursing consultations for at least 6 months, who have undergone an assessment of Basic Needs, a Care Plan and an Evaluation of the same, identifying the nursing diagnosis Ineffective Management of the Therapeutic Regimen, specifying the related factor that causes it according to NANDA (North American Nursing Diagnosis Association). The study period was carried out between May 2009 and September of the same year.

Sociodemographic variables were collected (Age, sex, educational level, profession, number of people living with, number of people in their care) and clinical variables: (Pathologies present in the individual and years since diagnosis. Consultations made by the subjects to the family doctor and family nurse in the last year. Users included in the Diabetes, Arterial Hypertension and Obesity programs. Etiological factors that are related to the nursing diagnosis Ineffective Management of the Therapeutic Regimen in NANDA.

In the qualitative approach, the total number of participants in the study was six patients, who acted as key informants, one for each of the six nursing consultations that serve the six medical units of our center. The selection was made through the nurse of each consultation, knowing the inclusion criteria, making sure that the three cases of the study were represented: Diabetes, Hypertension and Obesity, requesting informed consent from the patient and accepting their participation in

the study. In the qualitative description, we opted for a semi-structured interview, for which a script was previously drawn up in order to capture the objectives we were interested in knowing, to provide a common starting structure for all the interviews, and to also serve as a guide and reminder regarding the issues that the informants were asked about. The categories of analysis that were intended to be studied were the user's knowledge and skills to take care of themselves, the reasons and difficulties, family and social support, and the relationship with the healthcare team.

The data were processed using the SPSS program for Windows. Descriptive statistical tools were used in the processing of the data, both quantitative (measures of central tendency, dispersion and position) and qualitative (tabulations and calculation of relative frequencies) and analytical statistics (Chi-square test for the comparison of qualitative variables, and one-way ANOVA for the comparison of more than two means for independent samples). The quantitative variables were previously checked for a normal distribution, using the Shapiro-Wilk test. In all cases, values of  $p \leq 0.05$  were considered significant (bilateral contrasts).

In the analysis of the qualitative approach, all the interviews were transcribed and the data was analyzed by labeling them in the initial analysis categories, which were: User knowledge and skills, Motivation and difficulties of the user to take care of themselves, Family and social support, and the Relationship with the health team.

Regarding ethical considerations, all patients were informed verbally and in writing of the procedure to be performed before their inclusion in the study, and

signed an informed consent document in accordance with Law 15/1999 on the Protection of Personal Data. The project was approved by the Ethics and Clinical Research Commission of the Córdoba-Central Health District.

### **Results**

**Quantitative Analysis.** The population had a mean age of 60 years (standard deviation of  $\pm 13$  years. Range of 34 and 81 years). The gender representation was very similar, 48% for men and 52% for women. A community where the low social class level predominates; 88% of the participants were people with no education or primary education, and only 12% had secondary education; more than half, specifically 52%, were unskilled professionals and the other half were skilled non-manual workers (16%), and the other 32% were skilled manual workers.

According to clinical and care characteristics, patients have an average of 4 chronic pathologies, the most prevalent being diabetes (80%), obesity (76%), hypertension (68%), heart disease and other processes (68%), and those diagnosed with COPD with 12%. The years elapsed since diagnosis have also been studied, with an average of 6.6 years. Regarding the study of the factors related to the nursing diagnosis Ineffective Management of the Therapeutic Regimen of NANDA (remember that there are 18 factors proposed by this taxonomy), the most frequent one is number <sup>8</sup> (40%) which is defined as "Inadequacy of the number and type of keys for action". In the bivariate analysis, when we relate the sociodemographic/clinical variables with the related factors, we observe that in the relationship between sex and factor categories no significant differences have been found. When we relate it to age, no statistical significance was found either; we did

find it ( $p= 0.015$ ) in the relationship between the number of pathologies and the etiological factors. The last relationship we studied was the years elapsed since diagnosis, which also showed no significant difference, with  $p$  obtaining a value equal to 0.73.

Qualitative Analysis. A semi-structured interview was conducted with 6 women, aged between 41 and 66 years, with an academic level between primary and secondary university studies: the average number of chronic pathologies present in the participants was 1.6, with obesity present in all cases, diabetes in two and hypertension in two others.

The main results were grouped into 4 previously defined categories, with no emerging categories.

In the Knowledge category, participants highly value the information received from nursing consultations, admitting that the knowledge acquired is sufficient to comply with the health recommendations indicated in the care plan: " through the consultation they have taught me... they have explained it to me with simple examples " (E1), " I have understood it very well... I, with what they have given me, understand it very well... I do not need more information " (E2), " as for the information there is no problem... the information is correct... in that aspect I have no problem, because when it was explained to me I understood it well, other times... that information has not been given to me so correct, and so... visualize it, because the most important thing about information is that it has to be visualized " (E3).

They were also asked about complications arising from failure to comply with the recommendations, and they know the consequences: " Well, I would be in a nursing home... or in hospital... " (E2). " ...having high blood pressure could lead to kidney disease or heart disease, one thing leads to another... " (E3). " Well, what can I say, she [nurse is fed up with explaining to me about the complications of diabetes... because an aunt of mine died of diabetes... " (E5).

In the Motivation and Difficulties section, different factors were expressed for non-adherence, with a certain homogeneity in all cases: Lack of time: " ...in my case, I blame it on the lack of time... because working outside the home... you never see the moment to do sport... things around the house... " (E1). " It is not the same to be a chronic patient, like me, who has a family, than a young patient who has all the time in the world to diet, to take care of herself " (E5). Duration of the diet: " ...the truth is that at the beginning, in the first weeks, you do things better, I mean with meals, sport... but after a while you stop complying... " (E1). " ...I get tired [of doing the diet many times, I, practically throughout my life I have been like this [referring to being on a diet, and I get tired of the monotony of diets... at first I lose weight well but after a while you get bored " (E4). "As I have been fat all my life, well, you get tired... well, I get bored, I get tired and bored, and in the end I give up on the diet and say: well, I'll start another day... " (E5). Emotional situation: " ...and when I get really nervous I feel like eating... or I have a problem, or something is wrong with me... well, I spend all day next to the fridge... because I get really nervous, really nervous and off I go! I eat, I eat and the more I eat... the more... " (E2). " ...what I do notice is anxiety, because if you are not



psychologically well, you are anxious... it is very difficult to go on a diet... and anxiety directly leads to poor nutrition... what drives me crazy is anxiety and then that anxiety makes me eat poorly, and often eat without any sense... " (E3). Family and personal circumstances: " ...there are personal and family circumstances that often prevent you from following advice... in my case, for example, personal circumstances [recently separated from her husband and family circumstances [caregiver of her mother, severely dependent are now average, so they prevent me... " (E3). " ...also the work situation... [she is unemployed" (E4). Customs and family patterns: " ...women, housewives are like food collectors, like garbage collectors, which sounds very bad... if my mother has a little bit of omelette left over, I eat it, if my son has a little bit of fish left over... I eat it... " (E3). "...on Sundays we go to the countryside, you know? Well, in the countryside we can't follow the diet, nobody, we eat rice, we eat chorizo, blood sausage... whatever is eaten in the countryside... and I can't make stews without bacon, she [the nurse makes them without bacon, and I know I shouldn't, but at home I can't make a stew without bacon... " (E5).

In terms of family support in general, they value positively the support received from the family: " I do have support from my family... because having someone there: "come on mom, don't eat this..." that helps, obviously it is a main support " (E3). " My daughter sometimes tells me that she doesn't like the way I am: "mommy, you have to take care of yourself", that means, man, she cares about me " (E4). " My family makes me bitter, they want nothing more than to see me

thin, and all the time: "girl, lose a few kilos..." and my coworkers and everything... " (E5).

And in the relationship with the healthcare team, in all cases they claim to have a very good relationship with the healthcare team and they recognise this factor as an element of support to continue forward and as a contribution to self-esteem: " ...I have seen a truly personalised interest in my follow-up... taking a bit of psychological interest in how I was doing, and how it was affecting me, my daily life... it has managed to prolong the time I have been on the diet... " (E1). " I am happy with the treatment, with the attention, how you look after me... " (E2). " ...another thing that I see as very important is the feeling that can exist between nurse and patient... it gives you morale, for me that is fundamental; communication is the support, the technician-patient relationship, right? Because it seems as if it is a magnet and it helps you to follow that advice " (E3).

### **Discussion**

The study reveals the complex set of factors that influence the compliance behavior of a group of patients with chronic diseases, especially when we analyze the discourses of the interviews.

When we analyse the interviewees' statements, we discover a great deal of homogeneity in the responses. Although we dealt with three chronic processes (diabetes, hypertension and obesity), what stands out in the interviews is the existence of a concern for the subject of diet, which is the one that was referred to in the greatest depth, and where they focus their care for monitoring their pathologies, and it is where they find the greatest difficulty in achieving the

required objectives. This is a widely studied subject, and for health professionals it is a widespread experience, the low adherence of patients to the diet and their high rate of abandonment, which conditions the final result of a therapeutic plan. In this regard, the abandonment rate is around 50%, as reflected in other studies.<sup>8-11</sup>

As for the practice of physical exercise, they assign it an important value to limit the consequences of the disease and especially to control weight, however they do not do it regularly and report not doing it due to time problems, giving priority to other activities, or due to weather causes, especially due to the heat. This data is similar to the result found in other works, where adherence to the different components of the treatment is studied, in the case of arterial hypertension, in which 68.7% report finding difficulty in following the meal plan and 69.3% for physical exercise.<sup>2</sup>

When we analyse the degree of information that patients have about their conditions and in particular about the care they need to take care of themselves, we do not perceive that there is a lack of knowledge in our study, which is not the case in other studies<sup>13</sup> where it is surprising that patients diagnosed with arterial hypertension have such a basic knowledge about their pathology. In any case, we believe that information should be provided repeatedly, since we know that up to 40% of the information received is forgotten<sup>13,14</sup> and it has been proven that information and health education improve health levels and reduce risk factors for the individual.<sup>15</sup>

The importance of family support is evident as a stimulus for following a care plan, this statement is shared with other works in which the family and social environment has been investigated as a support for therapeutic adherence.<sup>16</sup>

We conclude that healthcare personnel must assume the existence of non-compliant patients and establish the necessary measures to detect them. It is necessary to increase the responsibility of users in their self-care and to do so, it is necessary to work with their beliefs and motivations. In this sense, the communication skills of the healthcare professional are an indispensable factor.

We are aware of the limitations of this study, as it is a small sample of patients from the same community, with little variability in age or social level, and all assigned to the same health centre where the nursing team works with standardised protocols. It would be advisable to carry out other studies that cover different, more heterogeneous populations and that continue to delve deeper into the detection of non-compliance as well as to find out which is the best strategy to improve it.

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