Nursing diagnoses of the domains self-perception and coping/tolerance of stress related to female infertility

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ABSTRACT

The objective was to characterize the profile of nursing diagnoses of the domains Self-perception and Coping/Tolerance of stress of women with infertility complaints. A descriptive, quantitative study conducted with 40 women, in a primary health care unit. Data was collected with an interview form created for this study. We identified 20 diagnoses. Improved readiness for power, Improved readiness for coping, Improved readiness for resilience, Anxiety and, Low situational self-esteem presented were more frequent. The findings revealed that infertility can generate anxiety and negatively affect women’s self-perception. However, this clientele demonstrated readiness to optimize their wellbeing. Identification of diagnoses contributes with care planning and enriches the quality of assistance, allowing women to be prepared for achieving maternity or not, through individualized nursing interventions, including emotional and psychosocial support according to the need of each one of them.

Descriptors: Infertility, Female; Nursing; Nursing Diagnosis.

INTRODUCTION

Infertility is defined as the incapacity of a couple to conceive after one year or more of regular sexual encounters without using contraceptive technologies¹. Epidemiologic data suggest that, about 10% to 15% of couples in the world are infertile².

In developed societies, infertility constitutes an increasingly prevalent phenomenon, which can be related to many causes. Ovulation dysfunctions, tubal factors, uterine or mucus-cervical changes constitute compromising factors for women’s infertility during reproductive age².
Nowadays, available infertility treatments include in vitro fertilization, intruterine insemination, intratubal transference of gametes, within others\(^1\). However, the indication of these technologies should be cautiously assessed, once a study pointed that couples who did not initiated early assistive drug therapies, adhering to a expecting conduct for six to 12 months presented higher changes to naturally conceive, with a better cost-benefit and less impact on the physical and psychological health\(^3\).

In the Basic Health Attention, low cost actions are passive of being offered to this clientele. Guidance to recognize the fertile period and the concentration of sexual encounters during this period are interventions that can be included in the assistance to infertility. Besides, detailed anamnesis and the complete physical examination to identify possible causes of fertility compromising are actions that should be taken during the initial contact with the infertile couple\(^4\).

Actions directed to infertility should not be limited to a medical or biological issue. The emotional impact of feeling infertile cannot be neglected, considering the large variety of psychosocial implications inherent to this condition\(^5\). Experiencing infertility has been globally associated with higher risk of adverse psychological outcomes. The stress related to infertility affects the intrapersonal and interpersonal domains, being the one the most compromised\(^6\).

Independently of age, education or occupation, the infertility impact is significantly higher in women. Studies showed higher level of stress and lower levels of quality of live for women, when compared to their partners\(^6-7\).

In this context, the nurse can perform a very important role in assisting women with infertility complaints. Adverse psychological behaviors and negative feelings can constitute essential clinical indicators to identify nursing diagnoses associated to female self-perception and compromised individual coping.

To identify a profile of nursing diagnoses has a relevant role for better direction of nursing interventions\(^8\). Thus, there is a lack of studies involving nursing diagnoses and infertility, although it is possible to map nursing interventions in the literature of psychosocial diagnoses of self-perception and compromised coping\(^6,9-10\).

A study conducted with 105 infertile women found nursing care resulting in positive effects on anguish feeling, with a better confidence to achieve a goal and, in the adaptation to the infertility condition\(^9\).

Nursing professionals find themselves in a privileged position to evaluate women who experienced infertility, which allows them to offer adequate care for each case, continuous support and counselling to help them to cope with stress related to this situation\(^4\).

In this study, we opted to identify diagnoses of the domains Self-perception and Coping/Tolerance to stress because those allow identifying the human response to infertility in the psychosocial field.

Thus, the present study aims to characterize the profile of nursing diagnoses of the domains Self-perception and Coping/Tolerance to stress presented by women with infertility complaints.
METHODS

A descriptive quantitative study, conducted in a healthcare institution that provides attention through nursing consultations to elderly and childcare, pre-natal assistance, cervix cancer prevention attention and, assistance for family planning. Nurses are the professionals working in this place, who develop clinical, educational and research activities.

To recruit participants for the study, we conducted visits to 28 Basic Health Units (BHU) close to the institution, the locus of study. Visits intended to advertise attention to infertility, available in the BHU.

In each BHU, we tried to contact available professionals, to identify clients with infertility complaints. Besides, we displayed posters and we handed out pamphlets with information about the offered service, with contact telephones in case they were interested in the attention. According to the search for the service, nursing consultations were scheduled. At the end of infertility consultations, women were invited to participate in our study.

To define the sample, we considered the following inclusion criteria: to be at reproductive age; to be sexually active; to not be using contraceptive method; to be 18 years or older. We excluded from the sample women who went through sterilization, hysterectomy, oophorectomy, menopause, and those whose partners were vasectomized. Women who presented another previous factor impeding them to conceive and that had no solution in the primary healthcare were also excluded. The sample was composed by 40 women with infertility complaint that were at the study location between May of 2012 and January of 2013.

After agreeing to participate and signing the Free and Informed Consent Term, each woman was directed to a room, where the interview to identify nursing diagnoses was conducted, based on the present defining characteristics. The mean duration of the interview was 50 minutes.

For the data collection, we used a form to conduct the interview, created for this study. This instrument was previously tested with a woman without infertility complaints to verify the order of content presentation and the comprehension of them. Questions addressed included defining characteristics of all nursing diagnoses for the domains Self-Perception and Coping/Tolerance to stress from the NANDA International taxonomy, Inc (NANDA-I), besides questions related to demographic and socioeconomic characteristics, gynecological and obstetric history, and the time of conceiving trial.

We organized collected data in spreadsheets, where we registered defining characteristics, as well as, additional information for a better comprehension of participant’s history. These spreadsheets also constituted a basis to conduct diagnostic inferences.

After organizing these data, we used a diagnostic rationale process by diagnostic inference, that includes: information collection, interpretation and grouping of information, and grouping denomination\(^{11}\). Two researchers conducted this inference; they were experienced in elaborating diagnoses in pre-natal nursing consultations and family planning during assistencial practice. Disagreement cases between researchers were resolved through discussion and detailed analysis of each case.

It is important to highlight that researchers responsible for the diagnostic inference were the same
who collected data. Due to the identification of psychosocial nursing diagnoses, we believe that the contact with the client allows a better comprehension of the experienced situation by each woman, besides allowing perception of non-verbal answers, fundamental to identify the presence of few defining characteristics.

Demographic and socioeconomic characteristics of the sample, the identified nursing diagnoses and, the defining characteristics found were registered and coded in an Excel database to determine their prevalence. The data analysis was conducted on IBM SPSS, version 21.0 for Windows. For the variables age and family income, we calculated measures of central tendency and dispersion, and we used the Shapiro-Wilk test for normality. For all other variables, we calculated absolute and percentage frequencies.

The research project was submitted to the Ethics Committee from Universidade Federal do Ceará, approved by the protocol nº 354/11. All requirements about ethical matters in research involving human beings were met.

RESULTS

For a better comprehension of the study context, we tried to characterize these women regarding their education, occupation, age and, family income (Table 1).

<table>
<thead>
<tr>
<th>Variables (years of study)</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to eight</td>
<td>07</td>
<td>17.5</td>
</tr>
<tr>
<td>Nine to twelve</td>
<td>30</td>
<td>75.0</td>
</tr>
<tr>
<td>Above twelve</td>
<td>03</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housewife</td>
<td>08</td>
<td>20.0</td>
</tr>
<tr>
<td>Unemployed</td>
<td>06</td>
<td>15.0</td>
</tr>
<tr>
<td>Employed</td>
<td>26</td>
<td>65.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>IQR</th>
<th>Min.</th>
<th>Max.</th>
<th>p value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age(years)</td>
<td>40</td>
<td>28.62</td>
<td>28.62</td>
<td>6.106</td>
<td>11</td>
<td>19</td>
<td>44</td>
<td>0.215</td>
</tr>
<tr>
<td>Family income (reals)</td>
<td>40</td>
<td>1,603.75</td>
<td>1,400.00</td>
<td>738.157</td>
<td>988</td>
<td>700.00</td>
<td>3,500.00</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Footnotes: N – Number of participants; SD – Standard deviation; IQR – Interquartile range; Min. – Minimum; Max. – Maximum; *Shapiro-Wilk test.

Within the study participants, we verified 30 women (75.0%) who had between nine and 12 years of education and, 26 (65.0%) were employed. The age varied between 19 to 44 years, and the mean was 28.6 years (±6.106). Regarding income, we observed a median of 1,400 reals per family.

Table 2 represents the profile of nursing diagnoses presented by women with infertility complaints.
Table 2: Distribution of nursing diagnoses of the domains self-perception and coping/tolerance to stress identified in women with infertility complaint. Fortaleza, CE, Brazil, 2013.

<table>
<thead>
<tr>
<th>Nursing Diagnoses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved readiness for power</td>
<td>34</td>
<td>85.0</td>
</tr>
<tr>
<td>Improved readiness for coping</td>
<td>33</td>
<td>82.5</td>
</tr>
<tr>
<td>Improved readiness for resilience</td>
<td>32</td>
<td>80.0</td>
</tr>
<tr>
<td>Anxiety</td>
<td>30</td>
<td>75.0</td>
</tr>
<tr>
<td>Situational low self-esteem</td>
<td>20</td>
<td>50.0</td>
</tr>
<tr>
<td>Chronic sadness</td>
<td>11</td>
<td>27.5</td>
</tr>
<tr>
<td>Improved readiness for self-concept</td>
<td>10</td>
<td>25.0</td>
</tr>
<tr>
<td>Fear</td>
<td>09</td>
<td>22.5</td>
</tr>
<tr>
<td>Impotence feeling</td>
<td>09</td>
<td>22.5</td>
</tr>
<tr>
<td>Risk of impotence feeling</td>
<td>06</td>
<td>15.0</td>
</tr>
<tr>
<td>Risk of situational low self-esteem</td>
<td>06</td>
<td>15.0</td>
</tr>
<tr>
<td>Risk of loneliness</td>
<td>05</td>
<td>12.5</td>
</tr>
<tr>
<td>Stress overload</td>
<td>05</td>
<td>12.5</td>
</tr>
<tr>
<td>Risk of compromised human dignity</td>
<td>04</td>
<td>10.0</td>
</tr>
<tr>
<td>Risk of compromised resilience</td>
<td>04</td>
<td>10.0</td>
</tr>
<tr>
<td>Readiness for improved family coping</td>
<td>04</td>
<td>10.0</td>
</tr>
<tr>
<td>Impaired individual resilience</td>
<td>02</td>
<td>5.0</td>
</tr>
<tr>
<td>Hopelessness</td>
<td>02</td>
<td>5.0</td>
</tr>
<tr>
<td>Ineffective coping</td>
<td>02</td>
<td>5.0</td>
</tr>
<tr>
<td>Compromised family coping</td>
<td>02</td>
<td>5.0</td>
</tr>
</tbody>
</table>

We identified a total of 20 different nursing diagnoses. Within those, Improved Readiness for power, Improved Readiness for coping, Improved Readiness for resilience, Anxiety and Low situational self-esteem presented higher frequency of occurrence.

For the most frequent health promotion diagnoses, the most prevalent defining characteristics include: Expressed readiness to increase participation in health choices (100.0%), Establishes Goals (100.0%), Identifies available resources (95.0%), Expresses readiness to increase knowledge about participation in a change (95.0%), Expresses readiness to increase decision power (95.0%), Tries to know new strategies (95.0%), Identifies the support systems (92.5%), Gets involved in activities (90.0%), Uses spiritual resources (87.5%), Assumes responsibility for actions (87.5%) and, Searches for social support (77.5%).

Regarding nursing diagnoses Anxiety and Situational low self-esteem, the most frequent defining characteristics were: Uncertainty (70.0%), Fear of unspecific consequences (65.0%), Concern (62.5%), Report of actual situational challenge to its own value (55.0%), Indecisive behavior (47.5%), Self-negative verbalizations (35.0%) and, Report of inutility feeling (32.5%).

DISCUSSION

Infertility constitutes a reproductive health issue that is frequently related to negative psychosocial impacts\(^{(12)}\). Although feelings and behaviors manifested by women who experienced infertility are independent of demographic and socioeconomic variables\(^{(6)}\), these constitutes factors to be considered by the nurse for a better direction of his actions.

Higher education levels can be a facilitator factor for the infertility nursing intervention, favoring these women’s comprehension about methods based on fertility perception, which can help them to recognize

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their fertile period, facilitating the achievement of pregnancy.

Similarly, financial independency constitutes a favorable point that should be stimulated, considering its positive effect surpassing the impotence feeling that tends to appear when facing a stressing event. Besides, the work environment can propitiate creation of bonds that help women to cope with problems\(^\text{[13]}\).

Age close to the period when pregnancy chances tends to gradually reduce can reflect in longer time trying to conceive without favorable results. This possibility should be recognized by the nurse who assists women with infertility complaint.

Studies point that unsuccessful pregnancy trials can generate stress, feelings of guilt, worthlessness and impotence, and it can decrease self-esteem, losses on social relationships, besides the decrease of quality of life\(^\text{[6-7,12]}\).

Evidence found in studies cited above is consonant with nursing diagnoses focused in problems with higher frequency identified in our study. Such diagnoses describe human answers to health conditions or existing vital processes in an individual\(^\text{[14]}\).

Anxiety was the nursing diagnosis focused in a problem with more frequency of occurrence. Although there were no studies identified involving this diagnosis in infertile women, studies confirm the presence of this feeling in the studied population\(^\text{[15-16]}\).

In a study aimed to assess the frequency of stress and anxiety levels in infertile women, it was concluded that these are more vulnerable to stress, presenting higher tendency to reach to threatening situations with higher levels of anxiety\(^\text{[16]}\).

Anxiety can be defined as a feeling of apprehension caused by the anticipation of danger or with a vague and bothering feeling of discomfort or fear, accompanied by autonomic response. In addition, it can also be considered an alert signal that calls attention for an eminent danger and allow individuals to take measures to deal with the threat\(^\text{[14]}\).

Uncertainty, Fear of unspecific consequences and Preoccupation comprehends the defining characteristics with higher frequency of occurrence found in this diagnostic.

Interventions to express and accept emotions and involvement in the resolution of problems can minimize infertility adverse effects, allowing women to feel more relaxed and alleviated\(^\text{[9]}\).

A study conducted with 20 infertile couples compared the emotional state of men and women submitted to in vitro fertilization. As conclusion, they verified that anxiety, as well as, depressive symptoms and low self-esteem were present in higher levels in females\(^\text{[15]}\). This data can ratify the negative influence of infertility in the self-perception and in the wellbeing sensation of women.

The nursing diagnosis Low situational self-esteem was identified in half of participants. The same is defined as the development of negative perception about their own value as answer to an actual experienced situation\(^\text{[14]}\).

The infertility, isolated or connected to other circumstances, was referred as the causing factor to decrease self-esteem by all participants who presented this diagnosis. The most frequent defining
characteristics that grounded the presence of Situational low self-esteem were: Report of actual situational challenge to its own value, Indecisive Behavior, Self-negative verbalizations and Reports of inutility feelings. This last, is justified in most cases by the incapacity of being a mother or to give children to her partner.

In a qualitative study aimed to describe experiences of Iranian infertile women, one of the themes that emerged during data analysis was the loss of self-esteem. It was seen that when a woman understand that is infertile, she loses her self-esteem and feels insufficient, useless and worthless\textsuperscript{(12)}.

With the intention to provide high quality care to infertile women, it becomes imperative to improve knowledge of health professionals, especially nurses, about the complications of this condition and its links with personal, cultural and social factors\textsuperscript{(10,12)}.

It is fundamental to maintain a high self-esteem to overcome adverse situations, considering that positive self-evaluation contributes for the individual to feel safe, independent and capable to modify a result\textsuperscript{(17)}.

Findings of a study conducted with 152 infertile women showed that although this population is more vulnerable to stress, they can adapt to stressor events, avoiding more psychological or physical compromising\textsuperscript{(16)}.

We observed in this study that beyond the presence of the diagnoses Anxiety and Low situational self-esteem, there is a predominance of health promotion diagnoses. This data can reveal a capacity of the studied group to respond to negative events in an adaptive way, that is, although passing through a situation causing stress, they can have disposition and motivation to promote actions that aim their wellbeing.

Within the five most frequent diagnoses, three are classified as health promotion nursing diagnose. This is defined as a clinical judgement of the motivation and the desire of an individual to increase wellbeing and to concretize the health potential, as manifested in their readiness to improve behaviors\textsuperscript{(14)}.

It is noteworthy that this type of diagnosis can be present in any health condition, not being necessary the presence of actual wellbeing levels\textsuperscript{(14)}. Thus, although contradictory, we perceive that it is possible to have diagnoses focused in problems and in health promotion concomitantly.

The diagnostic Readiness for improved power is defined as “a pattern of intentional participation to change that is sufficient to wellbeing and can be strengthen\textsuperscript{(14)}”. The characteristics that based this diagnostic include: Expresses readiness to increase participation in health choices, Expresses readiness to increase knowledge about the participation in a change and Expresses readiness to increase decision power.

The decision power can favor the increased control sensation over adverse situations, allowing the woman to visualize these situations as something that can be modified by her actions and to feel able to overcome them\textsuperscript{(13)}. In our study, infertility was referred by many women as an adverse situation that should be modified and controlled for full realization and concretization of the female identity.

A study conducted in Turkey showed that infertile women who received nursing care based on the Human Care Theory, when compared to women who did not receive these interventions, presented positive effects on the confidence of their own capacities, also presenting better adjust levels\textsuperscript{(9)}.

Tries to know new strategies, Uses spiritual resources and Searches for social support comprehend the most frequent defining characteristics that showed Improved readiness for coping in most participants. This diagnosis is defined as “a pattern of behavioral and cognitive efforts to cope with demands that are sufficient for wellbeing and can be reinforced\textsuperscript{14}.”

The social support level influences hopelessness levels in infertile women. Public health professionals need to be aware of the psychosocial and emotional impact of not having children. Thus, to inform these professionals about these matters and, to offer support to this clientele constitutes important steps to decrease hopelessness levels and to increase social support levels of these women, which will favor an adequate coping to infertility effects\textsuperscript{18}.

For the diagnosis Improved Readiness for resilience, the most frequent defining characteristics were: Establishes goals, Identifies available resources, Identifies support systems, Involves in activities and Assumes responsibility for actions.

This diagnosis is defined as a “pattern of positive responses in an adverse situation or crisis that is sufficient to optimize the human potential and can be reinforced\textsuperscript{14}.”

Resilience refers to health production in adverse contexts. In a study that tried to comprehend what make families at risk to create conditions to build a resilient life trajectory, it was pointed in few actions that it can be performed by professionals that works with families in risky situations\textsuperscript{19}.

Within actions that can enhance resilience, it is included: to move the emphasis of the negativity dimension of the experienced problem to the potentialities of people; the articulation of interdisciplinary actions and the amplitude of health protection measures\textsuperscript{19}. These actions can also fit in the infertility context.

In addition, it is noteworthy the importance of the health professional to be attentive to the negative impact caused by cultural prejudice related to infertility, besides offering support to women to cope with the insecurity and anxiety feelings inherent to the possibility of not conceiving, stimulating a positive emotional response to the experienced situation\textsuperscript{20}.

**CONCLUSION**

In our study, we identified a total of 20 different nursing diagnoses related to female infertility. Within them, Improved readiness for power, Improved readiness for coping, Improved readiness for resilience, Anxiety and Low situational self-esteem were the most frequent.

These data revealed that infertility situation can negatively affect the women’s perception of herself and that, the sensation of being unable to get pregnant, can generate anxiety feelings. On the other hand, we observed that regardless of the negative impact caused by the experienced situation, this clientele demonstrated readiness to improve or optimize wellbeing.

One of the limitations found corresponds to the lack of studies involving this theme, which impaired the discussion of results, impeding a comparison of our data with findings from previous studies.
The conduction of other studies in institutions that offer assistance for infertility can be useful to observe if the found nursing diagnoses can be extended to the general population.

It is noteworthy that the identification of nursing diagnoses contributed for the planning and execution of a care plan directed to each client, and it is fundamental to improve the quality of attention. Thus, we believe the nurse, identifying the woman’s response to the experienced situation, can prepare her to achieve or not motherhood through individualized nursing interventions, including emotional and psychosocial support according to the need of each woman.

We encourage future studies addressing nursing diagnoses and infertility, especially in the psychosocial field, considering the presence of Low self-esteem and Anxiety diagnoses, both tending to affect the quality of life of this clientele.

REFERENCES


