



Betty Neuman Conceptual Framework - Effect of Acupressure on Anxiety and Fertility among women with Unexplained Infertility subjected to Intrauterine Insemination

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ABSTRACT

Nursing theories and Models contribute significantly to the advancement of nursing profession. Nursing Theories help explain phenomena important to clinical practice. The variability in nursing phenomena and situations demand flexibility in the choice of specific conceptualizations to be used. In this paper, Self acupressure is conceptualized as an alternative nursing intervention to relieve anxiety – a stress response in women with unexplained infertility, subjected to intrauterine insemination and is synthesized on the framework of Betty Newman System model. Betty Newman System model identifies nurse's role in terms of reducing the stressor's reactions through primary, secondary or tertiary preventive interventions in order to retain, attain and maintain an optimum wellness level (Reed PG, 2006).

KEYWORDS

Betty Neuman System model/ Framework, Nursing Theories, , Stressors, Nurses role, Nursing Intervention, Nursing practice.

Introduction

The Science of Nursing is developed on a discrete body of knowledge comprising of paradigms, framework and theories. The integration of nursing theories into clinical practice demonstrates an evolutionary pathway for introducing a paradigm shift in the essence of Nursing.

Thus Conceptual models and nursing theories provide the basis for clinical practice.

A conceptual / theoretical framework or model is made up of concepts that are mental images of a phenomenon. These concepts are linked together to express the relationship between them.

The Neuman system model has been widely acclaimed to guide nursing practice (Ume-Nwagbo PN, DeWan SA, Lowry LW. 2006). The Neuman model is structure-based and comprehensive with a holistic view. It provides attention to a wide variety of nursing related concerns. This model has been noted globally to have demonstrated a holistic connection and reliability in a wide range of nursing practice, research, education and administration. It permits implementation that is innovative and has the ability to unite various theories relative to health, clarify relationships of variables in nursing care and define roles at different levels of the nursing practice (Tomey AM, Alligood MR. 2002) .

Study purpose

The study attempted to assess whether acupressure can help relieve anxiety in women during the multiple ovulation induction periods and thereby enhance their chances of conception with Intrauterine Insemination.

Conceptual framework -Effect of Acupressure on Anxiety and Fertility among women with unexplained infertility subjected to intrauterine insemination Betty Neuman System Model consists of four major concepts namely:

Person – System model is based on the ideology that every human being is a total person as a client system and is also multi dimensional. The model also draws attention to the reactions or responses of the client system to real or potential stressors. It focuses on the use of primary, secondary or tertiary preventions in order to retain, attain and maintain optimal wellness of the client system.

In the model, prevention is the most important form of nursing intervention, which aims at keeping the stressors and the stress responses from having a harmful effect on the client system.

Primary prevention takes place even before the client system can respond to a stressor. It works by strengthening and enabling the client system to better handle the stressor. Secondary prevention takes place after the client system responds to a stressor; its main aim, to prevent harm to the client system and does so by strengthening the internal lines of defense. Tertiary prevention, takes place after the system has been treated through the secondary prevention strategies. It offers support to the client system and tries to add energy to this system to enable reconstitution.

The client system dimension contains five variables or subsystems, viz., physiological, psychological, psycho-social, spiritual and developmental.

In the theoretical framework conceptualized, the women with unexplained infertility seeking treatment (IUI) to achieve motherhood are considered as a "**Person / client system**". She is regarded as an open system. Therefore, she is exposed to various stressors that lead to the stress response - anxiety. The diagnosis of infertility in itself is a stressor as evidenced in various studies.

Environment- In the model, the environment refers to the internal and external forces that in totality surrounds any person. It is due to this environment that the individual interacts at any given point. These forces comprise of intrapersonal, interpersonal and extra personal stressors that can have an influence on the person's normal line of defense and thereby influence the stable nature of the client system.

The internal environment is present within the client system itself, while the external environment lies outside the client system. A created environment as identified in the model is created unconsciously by the client and symbolizes the systems wholeness.

Health –In the model, health refers to client system wellness. In this context it is important to note that wellness is defined as the situation in which all parts and sub parts (variables / subsystems) are in harmonious existence with the client system.

The client system moves towards wellness during the condition when more energy is present than necessary and moves towards illness when more energy is necessary than is present.

Health is conceptualized to be the psycho physiological state as perceived by the women. It is a state of anxiety in which the women dwells. This subjects the client system to the risk of health consequences secondary to anxiety.

The physiologically altered state may lead to pathological effects. In the current scenario, it may dilute the effect of the treatment regime that the client system is subjected to and thereby influence the treatment outcome.

Nursing – In the model, nursing is considered as an exclusive profession that takes into account all of the variables, that influence the responses of the person to the stressors. Here person is regarded as a complete being and the responsibility of nursing is to provide holistic care.

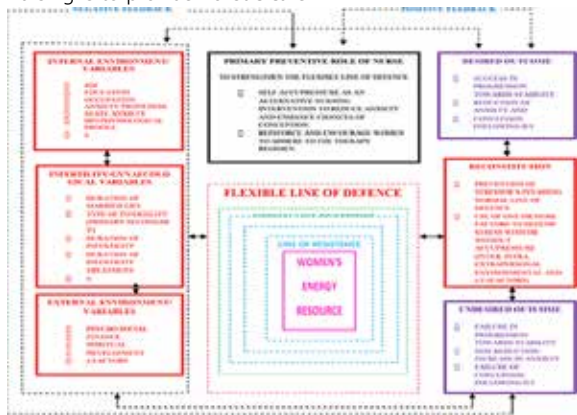


Figure 1: Betty Neuman Conceptual Framework- Effect of Acupressure on the Anxiety and Fertility among women with Unexplained Infertility subjected to Intrauterine Insemination.

In this model, nursing is defined as an ‘action, which assists the individual to remain at an optimized maximum level of wellbeing. The main focus is the maintenance of stability of the client system by using nursing methods in order to bring down response to stressors. In this framework, self acupressure is used as an alternative nursing intervention to achieve wellness and stability of the client system.

The normal line of defense within the client system is the green lines. It depicts the state of stability of the client system before exposure to the stressor. The three blue broken lines surrounding the innermost pink lines are depicted to defend the stressor.

The red outer broken lines protect the normal lines of defense which indicate the flexible line of defense. Strengthening this flexible line of defense is an attempt by the researcher as a primary preventive role. This flexible line of defense is dynamic in nature and can be changed rapidly over a minimum time period.

Being an open system, the client system is exposed to various stressors that lead to the stress response - anxiety. Anxiety is a common expression of the women experiencing infertility. Dr Spielberger conceptualized trait anxiety as considerably stable individual differences with regard to anxiety proneness. Humans differ in their perception of stressful situations as those being dangerous or even threatening and respond with raised levels in the intensity of their State anxiety. Stronger the Trait anxiety, it is more likely that the individual would experience higher State anxiety when exposed to a situation that is threatening.

Physiology of response to stressors is believed to be in integra-

tion with the thoughts, feelings and behavior of the person. This is elicited only when the system perceives it. Awareness can be a vital step to adapting constructively. Women however, differ in their ability to use the resources within the system in order to create a healthy line of resistance.

In the framework, anxiety may be due to the treatment schedule, uncertainty of treatment outcome, perceived failure to meet societal expectation, financial crises and the lack of a support system, all of which are indicated with the symbol of infinity (ω). These factors are beyond the control of the researcher and it is assumed that the randomized controlled trial (RCT) along with sample selection criteria would take care of having a homogenous sample as much as possible.

Stressors and the reactions to the same are basic to the client open system. Anxiety is also inevitable despite the type of stressors encountered by the women undergoing IUI. Acupressure serves as an alternative nursing measure to help these women adapt to the anxiety producing stressors.

Intrapersonal, interpersonal, extra personal, social, economical, psychological, and environmental and the (α) infinite factors either positively or negatively influence the process of reconstitution.

Women, unconsciously mobilize their internal variables (age, educational background, occupation, their anxiety proneness, state anxiety and bio-physiological profile) and external variables (Psycho social, spiritual, financial and developmental). The infertility/gynecological variables – duration of married life, type of infertility (primary / secondary), duration of infertility, duration of infertility treatment also influence the dependant variables of the study- Anxiety and Fertility. These variables are considered as the survival factors of energy resources depicted as the pink line within the client system.

During the process of mobilizing the energy resource, unpleasant feelings could surface, manifesting as anxiety. This emotional state disturbs the internal climate of the client system, which may influence treatment outcome.

Self acupressure at P6 acupoint was hypothesized to help the women relax and to create an inner calmness. However during the process of the client system progressing towards stability or wellness, the survival factors or the energy resource may not succeed due to the positivity or negativity brought about by the above mentioned variables. They serve as an energy source between the client system and the environment.

The influence on the client system, both from within and outside by the variables broadly classified as physiological, psychological, sociocultural, spiritual and developmental (inter, intra and extra personal) stressors are beyond the researcher's control.

To overcome the various known and the unknown extraneous variables that are considered to influence positively or negatively, a control group is placed for comparison and to bring out the effect of acupressure as an independent variable on anxiety and fertility.

If the system progresses towards well being and helps achieve stability, then it serves as a positive feedback that motivates the client system. However if the system is not stabilized, then the feedback is negative, which suggests reassessment or exploring other modalities for anxiety relief.

A structured interview questionnaire was used by the researcher to elicit the demographic, Psychosocial and Gynecological sample profile.

Using both subjective (self-report inventory – Dr Charles D. Spielberger State – Trait Anxiety Inventory) and objective (blood pressure, pulse and respiration) parameters, an attempt was made to assess the effect of acupressure on anxiety and

the following postulated hypothesis was tested.

H₁ -Women, who practice self acupressure for anxiety during the multiple ovulation induction periods for IUI, will demonstrate a significant reduction in anxiety, in comparison to those women who do not practice self acupressure for anxiety.

H₂: Women, who practice Self acupressure for anxiety during the multiple ovulation induction periods for IUI, will demonstrate a higher rate of conception in comparison to those women who do not practice Self acupressure for anxiety.

H₃ - There is a significant relationship between the anxiety of the women during the multiple ovulation induction periods and their Post IUI fertility outcome.

Fertility, being a complex phenomenon, has a high degree of limitations and hence this theoretical framework desires to only assess effect of self acupressure on anxiety and also to identify whether there is a significant relationship between anxiety and fertility of the women with unexplained infertility subjected to IUI.

Based on Betty Neuman theoretical framework, the researcher identified that the women with unexplained infertility needs supportive care to deal with the anxiety endured in the process of seeking treatment in order to achieve motherhood. This eventually subjects the client system's wellbeing to disharmony. Implementing self acupressure as an alternative nursing intervention to deal with her anxiety, helps strengthen the women's flexible line of defense in a realistic and natural environment from the 2nd / 3rd day of her menstrual cycle through multiple ovulation induction periods until IUI. This could help the women attain wellbeing, improve their quality of life and thereby fertility.

If the study results support the postulated hypotheses, then acupressure could be considered as a viable alternative nursing intervention for anxiety, thus adding to the body of literature supporting alternative and complementary modalities that have far reaching implications with regard to holistic and preventive health in the current scenario of our health care system.

Summary

Nursing practice is influenced by a combination of scientific, medical, philosophical, psychological, sociological and nursing theories. There is no one theory that fits every situation or area of practice (**Viki Burges 2009**).

Nursing theories and models help nurses practice with a framework in mind, which promotes holistic care of their clients with sound clinical decision making.

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